



www.actuariesindia.org

the Actuary INDIA

THE MAGAZINE OF THE INSTITUTE OF ACTUARIES OF INDIA

June 2017 Issue

Vol. IX - Issue 6

Pages 28 • ₹ 20

INDIAN ACTUARIAL PROFESSION
Serving the Cause of Public Interest

INAUGURATION OF NEW OFFICE AT L & T GRAND CENTRAL, SEAWOODS



PRICING NON-LIFE INSURANCE

Mumbai, 28th - 29th June 2017

10.00 a.m. - 5.00 p.m.

Program

Economics of Insurance influence on Pricing

Information Systems and Pricing

Risk Factors and Rating Factors

Exploratory Data Analysis

A Priori Pricing: Traditional and New Techniques

A Posteriori Pricing: Experience Rating and Bonus-Malus Systems

From the Actuarial to the Commercial Rate: Strategy and Pricing through Value

About the Workshop

The workshop aims to present and explain what to consider when building a non-life insurance tariff and to:

- Prepare the construction of a non-life tariff
- Undertake risk analysis and preliminary analysis of data
- Calculate pure and commercial premiums according to deterministic and stochastic methods
- Draw the a posteriori pricing system
- Integrate the tariff in the strategy concept
- Redesign the tariff creating value for the insured.

The workshop will have 12 hours with a strong practical component and a permanent tutorship. Its participants will build and develop the examples using their Laptops and they may do it alone or in groups of two or three people.

This workshop on Pricing Non-Life Insurance is also available as private in-house event. For this alternative contact us: infoMumbai@actuarial.pt, www.actuarial.pt.

More Information

More information may be obtained through infoMumbai@actuarial.pt or 91 22 6179 3841

About ACTUARIAL Group

ACTUARIAL Group Mumbai is a representative office of ACTUARIAL Group Dubai which belongs to ACTUARIAL Group Portugal (Grupo Actuarial) and inherited the same line of businesses related to insurance industry (Insurance and Actuarial Consulting, Insurance and Actuarial Software and Training).

Grupo ACTUARIAL is certified by DGERT, the Portuguese certifier entity on education quality.

This event is a joint venture of ACTUARIAL Group Mumbai and the Lisbon office.

FROM THE DESK OF PRESIDENT

Mr. Sanjeeb Kumar

4

FROM THE DESK OF CHIEF EDITOR

Mr. Sunil Sharma

5

NEW OFFICE INAUGURATION

6

EVENT REPORT

4th Seminar on Current Issues in General Insurance
by Mr. C Ananthanarayanan

12

FEATURES

Risk Based Capital- Issues, Challenges and Opportunities
by Mr. Sonjai Kumar

17

PEOPLE'S MOVE

Mr. Keyur Parekh

20

INDUSTRY UPDATE

Facts & Coverage - Atal Pension Yojana
by Mr. Mohammed Noman

21

Helping Asia become more resilient to
rising cancer threats by Mr. Detloff Rump

23

COUNTRY REPORT

Pakistan: Life Insurance Update
by Mr. Nauman Cheema

25

CAREER CORNER

Agriculturerag Insurance Co. of India

8

RGA

19

CHIEF EDITOR

Sunil Sharma

Email: sunil.sharma@kotak.com

EDITOR

Dinesh Khansili

Email: dineshkhansili111@gmail.com

COUNTRY REPORTERS

Nauman Cheema

Pakistan

Email: info@naumanassociates.com

Kedar Mulgund

Canada

Email: kedar.mulgund@sunlife.com

T Bruce Porteous

United Kingdom

Email: bruce_porteous@standardlife.com

Vijay Balgobin

Mauritius

Email: vijay.balgobin@sicom.intnet.mu

Rajesh S

Singapore

Email: prasannarajesh30198@yahoo.co.in

Devadeep Gupta

Hongkong

Email: devadeep.gupta@prudential.com.hk

John Smith

New Zealand

Email: johns@fidelitylife.co.nz

Frank Munro

Srilanka

Email: Frank.Munro@aia.com

Krishen Sukdev

South Africa

Email: krishen.sukdev@gpaa.gov.za

Disclaimer: Responsibility for authenticity of the contents or opinions expressed in any material published in this Magazine is solely of its author and the Institute of Actuaries of India, 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 and legality of such advertisements and implications of the same.

The tariff rates for advertisement in the Actuary India are as under:

Back Page colour ₹ 38,500/-

Full page colour ₹ 30,000/-

Half Page colour ₹ 20,000/-

ENQUIRIES ABOUT PUBLICATION OF ARTICLES OR NEWS

Please address all your enquiries with regard to the magazine by e-mail at library@acturariesindia.org.

Kindly do not send it to editor or any other functionaries.

Printed and Published monthly by Vinod Kumar Kuttierath, Head of the Education and Training, Institute of Actuaries of India at PRINT VISION, 75/77, 1st floor, Punjani Ind. Estate, Near Abhishek Hotel, Khopat, Thane (W) 400 601, for Institute of Actuaries of India L & T Seawoods Ltd., Plot No. R-1, Tower II, Wing F, Level 2, Unit 206, Sector 40, Seawoods Railway Station, Navi Mumbai: 400 706 Email: library@acturariesindia.org Web: www.acturariesindia.org



Mr. Sanjeeb Kumar

Dear Students and Members,

Results of Mar 2017 examination diet are out for all the papers. Congratulations to all the students who came out with success. For those who couldn't cross the mark this time I would like to urge that perseverance & hard work would surely lay the path for success in future and in actuarial course it is needed as much as in any other course, so keep going hard. Further, our actuarial curriculum/ training is very close to our professional work and I truly believe that while reading a paper for examinations again is cumbersome yet it helps us to deliver better in our jobs.

The institute has been increasing its focus on coaching and training of students aside the continuous professional development programs for qualified members. We have online coaching facility available to our students at nominal cost for CT level subjects. I encourage students to make use of this facility. We are also

planning to arrange face to face coaching for select subjects where the data suggests that students stuck more frequently in some of those papers. During last diet we conducted the face to face coaching for CA2, CA3 and SA2 papers. We will extend this facility soon to some other subjects covering papers at all levels CT, CA, ST and SA for selected subjects for the current diet.

Important Milestone - I would like to update all the members and students that our Institute has bought its own space for office and other facilities in L&T Seawoods Grand Central building in Navi Mumbai. We had the inauguration ceremony where Ms Pournima Gupte, Member Actuary, IRDAI inaugurated the new office, on 3rd June 2017. We are shutting down the existing office on 1st July and shall start working from the new office on the next working day on 4th July 2017 at Navi Mumbai. This is really a proud moment for all of us that the Institute office has its owned premise of around 9000 square feet. The office has been designed and developed to cater the growth needs and ambition of our profession. The office has the facility to accommodate staff upto 50 employees and it has a 30 to 40 seater training room, Board/ Council room, 2 large and 2 small meeting room, library room and the cafeteria aside other facilities. We are sharing with you pictures of the inauguration ceremony as well as office facilities in the current issue of our magazine.

At the end I would like to submit that we are there to grow and further develop our profession, capabilities and skills. You will notice many programs and actions in days to come aiming to meet these objectives.

As always I would like to conclude by stressing upon the importance of contributions required from the members and students to further the cause of learning and developments. While we would try our best to build an infrastructure aimed at learning and skill developments but it could be achieved only if we receive active and enthusiastic participation from our members and students. Please do volunteer and contribute to our profession in whatever capacity you can.

Wish you all have nice monsoon days!

LETTER TO THE EDITOR

We invite readers to respond briefly to our articles and to 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.





Sunil Sharma

Its great catching up with you, after Annual Board reporting and Regulatory reporting for FY 2017 season is over. It's a fresh start of the new Financial Year 2017-18.

Recently, I was watching a program on TV on how the gap between rich and poor is widening across the globe. This significant inequality poses a major threat to the growth of the economy. On the lower end of the income scale, technology now performs some of the functions that once used to be performed by low-skill workers. Furthermore, technological changes have enabled companies to send jobs to countries with lower labor costs. Further,

There is a very nice quote from Nelson

competing for fewer jobs, wages for low-skill occupations have dropped. At the same time technology has been a boon for some higher earners, for example in fields such as computer engineering serves as complement to high-skilled workers, which has enhanced demand for and the relative wages of these workers.

As per a report by Organisation for Economic Cooperation and Development (OECD), wealth inequality between rich and poor in developed countries has risen to a 30 years high. OECD uses ratio of Median to mean to represent "wealth gap ratio" or "wealth inequality".

Another way of looking at the inequality is by Income Group. The chart below from global wealth report shows some positive message that there is 14% fall in proportion of poor. (source: global inequality)

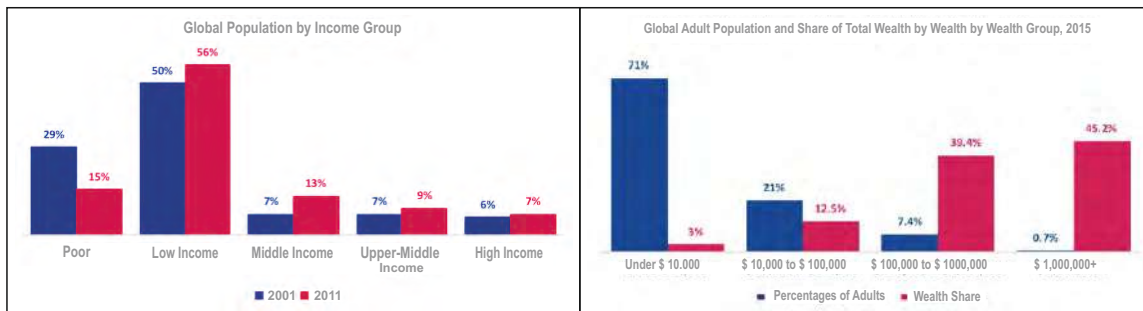
A paper by IMF suggest, if the income share of the top 20 percent (the rich) increases, then GDP growth actually declines over the medium term,

(58.4%) of the wealth in the country is owned by the top one per cent of the population. In fact, the share of wealth owned by this creamy layer has swelled up from 36.8% in 2000 to 58.4% in 2016. And this gap will continue to widen until steps are taken to curb the movement of black money.

Bringing greater transparency and accountability for every section of the society including businessmen, politicians and bureaucrats is the need of the hour.

What can we do to reduce the gap between rich and poor in India? Well, there is a need to set up strong agriculture friendly policies that benefit both small farmers and landless workers. This will help to reduce distressed migration from villages to town. There is need to set up labor intensive industries to employ people migrating from rural areas and millions working in informal sectors.

The Government has initiated various reforms and schemes to address concerns of the poor. It is expected that these reforms shall benefit poor in short to medium term.



Mandela- "We must work together to ensure the equitable distribution of wealth, opportunity, and power in our society".

It is very critical for the policy makers to focus on the poor and the middle class. This matters a lot not only for the growth but also for sustainability of the growth. due to globalization now more workers

suggesting that the benefits do not trickle down. In contrast, an increase in the income share of the bottom 20 percent (the poor) is associated with higher GDP growth.

As per Credit Suisse's Global Wealth Report of 2016, India is the world's second most unequal country in the world after Russia. More than half

Government of India needs to engage Actuarial Profession in policy making in particular for Social Security, Health Sector, Planning and long term Projects. Actuarial Profession needs to engage with Government of India and elaborate how actuaries can work to help meet such social security goals.

With this message I would like to sign off.



"Never give up on a dream just because of the time it will take to accomplish it. The time will pass anyway"- Earl Nightingale

It has been a long cherished dream of the Actuarial profession in India for owning an office in Mumbai. It hasn't been a smooth journey to accomplish it; at last, we have our dream come true. The new office is housed in the mammoth architectural phenomenal structure L & T Central situated adjacent to Seawoods Darave sub-urban railway station in the Harbour line of Mumbai.

The new office address is : Institute of Actuaries of India, Unit No. F-206, 2nd Floor, F Wing, Tower 2, Seawoods Grand Central, Plot No-R-1, Sector 40, Seawoods, Navi Mumbai- 400 706

The Shree Satyanarayana pooja has been ceremonized on Monday, 29th May 2017 as per our traditions with few employees and their families present.



The inauguration of the office was held on 3rd June, 2017 in the esteemed presence of Sanjeeb Kumar, President of IAI, R Arunachalam, Vice president, Council members, dignitaries, senior members of the profession and all staff members of the Institute.





The inaugural function started at 11.30am. The President of the Institute welcomed the gathering and invited the Guest of honor Ms. Pournima Gupte, Member (Actuary) ,IRDA to inaugurate the function by lightning the lamp and cut the ribbon. The President also described the structure and pattern of the new office and requested all members to walk around and experience the new office.



Ms. Pournima Gupte along with President and other senior members of the Profession lighted the lamp. The ribbon passing also followed.

In the inaugural address, Ms. Pournima Gupte recalled the long journey of our profession from the erstwhile Actuarial Society of India established in the year 1944 to the Institute of Actuaries of India, currently at. She congratulated every member of the profession for the great achievement and extended her good wishes to all the employees of the Institute to serve the profession in the best manner. She has also expressed great confidence and hopes on the future of the Profession in the hands of young, energetic and bright actuaries getting qualified year to year.”



The new office is divided mainly into Public and Private areas

Public area includes, reception, the Council meeting room, 30 seat class room, two large meeting rooms, two small meeting rooms, Library, Cafeteria, Recreation section, rest room and toilets

Private area covers, President's cabin, Executive director's cabin, 2 Head of Department's cabins, breakout area, 35 work stations for staff members, dispatch section

Few snapshots of Public areas:



Reception/Waiting Lounge: Sofa set for 5-6 persons, LED, reception desk equipped with laptop and intercom



Council meeting room, seating capacity 15, projector, screen, audio systems, wi-fi connectivity and power sockets



AGRICULTURE INSURANCE COMPANY OF INDIA LIMITED

Regd. Office: "Ambadeep Building, (13th floor), 14, Kasturba Gandhi Marg, New Delhi – 110 001

Applications are invited from resident Indian Citizens for the post of FULL TIME "APPOINTED ACTUARY" on Contract basis.

- 1) Total No. of Vacancy - 1
 - 2) Eligibility conditions - As on 01.07.2017
 - 3) Qualifications - The candidate should be a "Fellow" of Institute of Actuaries of India and he/she should satisfy all the requirements of IRDA (Appointed Actuary) Regulations, 2017, & other relevant IRDA regulations with regard to Appointed Actuary issued from time to time,
 - 4) Experience - Preference will be given to candidates with experience in General Insurance Industry.
 - 5) Duties and obligations - As per IRDA (Appointed Actuary) Regulations mentioned above.
 - 6) Selection Procedure - The Selection procedure shall be by personal interview
 - 7) How to Apply - Applications on A 4 size paper neatly typed or handwritten in CAPITAL LETTERS, super scribed at left hand upper corner of the envelop "AIC- APPOINTED ACTUARY" should be sent to the following address
Deputy General Manager (HR)
Agriculture Insurance Company of India Ltd.,
HR Department, 21st Floor,
Ambadeep Building, 14 Kasturba Marg,
Connaught Place, New Delhi – 110 001
 - 8) Last Date of receipt - **10.07.2017** of Application
- For other details please visit AIC's website www.aicofindia.com**



Two big meeting rooms of 8-10 seater capacity with facility to merge to accommodate upto 15 seats , two small meeting cabins of 3 seater capacity



Coaching room with 30 seats capacity, projector, screen, audio system, wi-fi connectivity, power sockets



Kitchen / Pantry: Appropriate size having provisions for Fridge, water purifier Microwave, Tea/Coffee vending machine, induction etc with the small partition for play area



Library



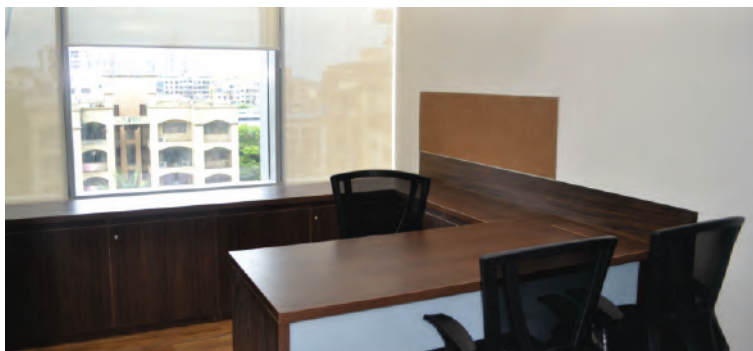
Recreation area



Rest Room



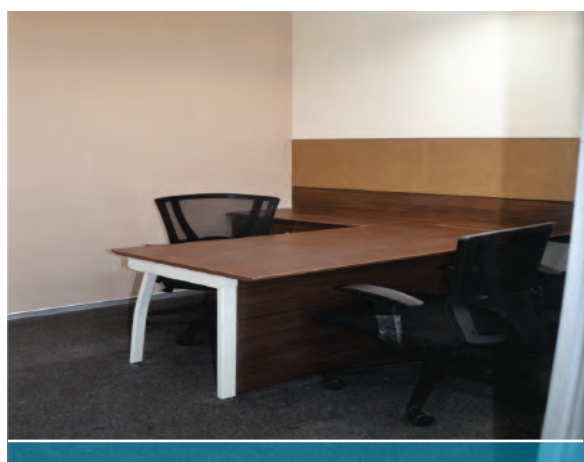
Few snapshots of private areas:



President's Cabin



Executive Director Cabin



Head of the Departments:
2 cabins



Work stations: 35 nos, each having provision of intercom, internet/broadband connection, electrical wiring for laptop/printers etc, separate storage facility



Breakout Areas: 3 sofa chairs with centre table



Courier Department: Counter Desk having facility for, intercom, chairs, storage cupboards etc

Prepared by



Mr. Vinod Kumar Kuttierath
vinodkumar@actuariesindia.org

**Head- Education & Training,
Institute of Actuaries of India.**



Thinking Forward

In today's market, you need a partner that listens closely and thinks boldly, with the expertise to deliver solutions with vision and value. Whether you want powerful new underwriting tools, better product features and pricing, risk management solutions or to develop channel specific propositions, you can rely on the innovators at RGA. Because when it comes to managing risks and finding opportunities in the modern world, RGA thinks ahead of the curve so you can stay ahead of the game.



Organized by: Advisory Group on
General Insurance, IAI.

Venue : Hotel Sea Princess , Mumbai

Date : 19th May 2017



Ms. Sana Konnur & Mr. Neel Chheda were the masters of the ceremony.

Welcome & Introduction

Mr. R Arunachalam, Vice President, IAI

The Vice President of the Institute of Actuaries of India, Mr. R Arunachalam began the seminar with a warm welcome to all the participants. He gave a brief of the things that would be presented and discussed in the seminar.



Mr. R Arunachalam said that today the general insurance industry is poised at a very interesting stage. There are Initial Public Offerings under discussion; a first time for the general insurance industry in India; the importance of Crop Insurance & the challenges in pricing and reserving for the business; the impact that technology is making on the way general insurance is functioning and finally the way the Indian industry needs to start thinking in terms of regulatory changes that would address risk based capital.

Keynote Address

Ms. Pournima Gupte, Member Actuary, IRDAI

Ms. Pournima Gupte, Member Actuary, IRDAI shared her thoughts on some of the key issues facing the general insurance industry in India. Low insurance penetration was a key concern. The metrics used could either be an insurance premium to GDP ratio or insurance density – India had a long way to go in comparison to other developed countries.



A second point of concern was the poor underwriting results of the general insurance companies. The Member Actuary opined that this was due to discounts offered to clients, not appropriate experience rating being done and other related reasons. Though companies were reporting a profit due to investment income, it was essential that companies started to demonstrate underwriting profits.

The Member Actuary shared her thoughts on Risk Based Supervision – very different from the Risk Based Capital regime. Under the Risk Based supervision model, the regulator would look at general insurance companies using different parameters like Age of the company, the promoters & their financial strength, the reserve adequacy of the company etc. Based on these drivers, a company could be subject to more frequent on site inspections and/or more frequent statutory submissions (the Appointed Actuary's report, the Financial

Condition Report etc) to the IRDAI.

The Member Actuary indicated that a peer review system for Appointed Actuary in the General Insurance industry was being considered and work towards this had already begun.

In the area of Product approval, the Member Actuary urged all companies to respond to queries related to products within a week. This would help the Authority to complete its process quickly and give an approval for any product within a month from the date of the first receipt of the application for the product.

Panel Discussion – Challenges & Opportunities in listing General Insurance companies

PANELISTS

Mr. Tapan Singhel, CEO Bajaj Allianz General Insurance Company

Mr. Satyan Jambunathan, CFO ICICI Prudential Life Insurance Company Ltd.

Mr. R K Nair, Former Member, IRDAI

MODERATOR

Mr. Kaushal Shah, Head Financial Services, Kotak Mahindra Capital Company Ltd



How does listing help an insurance company? **Mr. Kaushal Shah** opened the discussion with this fundamental question to the panelists.

Mr. R K Nair believed that taking a company public brings in tremendous

the Actuary India June 2017

improvements in market discipline; since investors & analysts expect disclosures that are forward looking. Any variations in actual numbers as compared to forecasted numbers will be scrutinized more stringently. A second area of improvement due to listing is corporate governance will improve.

Mr. Satyan Jambunathan said that the period before actually raising capital is very critical – the company intending to list has to establish a good track record before going to raise capital and secondly, more so in the Indian context, considerable effort and resources need to be spent on investor education on how the insurance industry operates.

Mr. Tapan Singhel believed that there is a huge gap in understanding of how general insurance companies operate amongst the investor community and there needs to be an effort on investor education. This would help investors understand the various disclosures (actual and forecast) in a better manner.

Thus listing of an insurance company would improve discipline and governance of the insurance company and at the same time understanding of how insurance companies operate would improve amongst the investors & the public in general. There could be a domino effect on listing – investors could also become customers.

The next point of discussion was the metrics to measure the value of a general insurance company.

Mr. Satyan Jambunathan explained that the price could be set on the multiple of a

factor – say the profit in a particular year or it could be set on a cash flow model. Due to lack of any precedents in the country of an insurance company being listed, a cash flow model would seem to be more appropriate.

Mr. Tapan Singhel said currently some metrics used to evaluate the performance of a general insurance company like Combined Operating Ratio, Operating Expenses, Return on Capital Employed (ROCE) etc should not be looked in isolation when determining the value of a company. The other aspects that need to be considered are the lines of business the company is selling, the diversification of its portfolio (business, geography etc) while considering the value of a general insurance company.

The role of the various regulators viz. IRDAI and SEBI and their conflict of interest was discussed next. The primary role of the IRDAI is to protect the policyholder's interests while the primary role of the SEBI is to protect the investor. Prior to listing, general insurance companies would be regulated by only the IRDAI; while post listing the companies would be regulated by the IRDAI and SEBI. In case of a conflict of interest, what could be the implications were discussed.

The session was different from the usual sessions in actuarial seminars; it discussed the interests of various stakeholders – regulators, investors, the policyholders etc and how they would be impacted by the listing of a general insurance company.



Risk and Challenges in M&A of a General Insurer

Mr. Ritesh Kumar, MD & CEO of HDFC ERGO General Insurance Company Ltd.



Mr. Ritesh Kumar began the session by defining a successful M&A. A successful M&A is one where the buyer is able to realize synergies envisaged as per its **business plan**. The emphasis was on the buyer's business plan and to what extent the M&A could realize it.

M&A are driven by synergies – they could be revenue synergies, cost synergies, efficiency of capital or such considerations.

For an M&A in general insurance, two aspects play a very crucial role – time period to conduct the deal and the method adopted to conclude the deal.

General Insurance is a short term business – contracts are typically for a year; however the time taken to complete an M&A usually takes 12 months to 18 months. Delays in the M&A process have a much larger implication due to **a)** the quality of business written is usually known after about 6 to 9 months & **b)** Announcement of the M&A deal leads to uncertainty amongst policyholders, business partners and employees (of the seller and of the buyer companies). There can two methods adopted to

close a deal – a) merger is affected along with the acquisition or b) acquisition of the target company happens first and merger with the buyer company happens later.

Mr. Ritesh Kumar believed that the latter method was more suitable for M&A in the general insurance space in India.

The process that takes place in an M&A was explained in detail – due diligences, regulatory approvals, compliance with various laws and statutes. The potential challenges and how to mitigate the challenges to the deal at various stages were also highlighted – one of the challenges that stood out was how to handle the uncertainty of the employees of the buyer!

The session ended with a Q&A and in the opinion of the speaker, we can expect more M&A deals in the near future in the general insurance industry.

Issues in pricing and reserving of crop Insurance

Mr. Anuj Tyagi, Executive Director, HDFC Ergo General Insurance Company Ltd.



Mr. Anuj Tyagi started the session by detailing the evolution of the crop Insurance schemes in India and how the current avatar of the crop Insurance – the Pradhan Mantri Fasal Bima Yojana has evolved. The significant development, in the speaker's opinion, is that there would be only crop insurance scheme implemented in the

country and thereby expanding the scope for crop insurance.

A step by step approach to pricing for Weather based crop insurance as well as for Yield based crop insurance was explained. In principle, the pricing seemed to be quite straight forward; however, there are certain challenges in arriving at an appropriate price.

Lack of historical data and basis risk was common to both types of crop insurance; changing trends in weather pattern & lack of data for natural catastrophe were issues in weather based and yield based crop insurance respectively. A key risk highlighted in yield based crop insurance was the gap between the expected sum insured and the actual sum insured

The actual claims experience to what was reserved for could be very different if the portfolio is not actively tracked. The key to minimizing reserving shocks would be to track the weather data on a regular basis for weather based insurance and gathering data at various crop cycles for yield based insurance. The speaker suggested that the stages for monitoring the data could be policy inception stage, policy period stage and policy expiry.

To mitigate the risks faced in pricing and reserving, the speaker suggested using technology (satellite imagery, mobile applications, drones etc) to obtain correct exposures & claims management and better modeling of weather events including natural catastrophe.

Actuarial Role in Reinsurance Optimization

Mr. Jyoti Majumdar, Head of Client Markets Property & Casualty, India Reinsurance Asia

This session essentially discussed Natural Catastrophe Models (Nat Cat



Model) and how they could be used in pricing of various risks. A Nat Cat modeling was a multi disciplinary approach and it involved natural scientists, civil engineers, geoinformatics and statisticians who contributed to the stages of natural hazard, vulnerability, property values under risk and insurance coverage respectively in the Nat Cat model.

The structure and the working of an Insurance Linked Security (ILS) were explained and how an ILS could be used to provide protection to insurers, reinsurers, governments and corporations. An ILS would also provided diversification from traditional securities since they were based on natural catastrophic events.

Motor TP Claims Management & Implications of Changes in the Motor Vehicle Act

Captain Sanjay Moholkar, Partner, Business Edge Enterprises LLP



The first half of the session dealt with the issues in Motor Third Party Claims especially delay in reporting of claims, the time lag from reporting to settlement of claims and the subsequent impact on the loss ratios of the portfolio.

The second half dealt with the changes in the Motor Vehicle Act – the key changes are removal on cap of liability for third party insurance, National Road Safety Board and most important change would be the introduction of the Accident Information Report. The Accident Information Report specifies a time limit of 3 months to a police officer to submit the report to the Claims Tribunal and furthermore, the insurance company must settle the claims within 30 days on receiving the claims information.

The rest of the session explained the Amendments to the Act and the penalties proposed for misdemeanor while driving. The penalties for offences have been increased by 2.5 times for minor offences to 20 times for major offences!!

Technologies for NextGen Digital Insurance

Mr. Mohan Bharatia, Partner, Insurance Consulting, L&T Infotech Ltd.



The use of technology in Insurance and how it can be used to provide more efficiency to the insurance company and at the same time create an incredible experience to the customer was highlighted.

Customers have become tech savvy and are willing to engage on a digital platform to enhance their experience while buying

insurance, policy servicing and making claims. With the abundance of data, the speaker felt that using analytics, insurance companies could target customers from the moment of designing a product for them, to proactive alerts to prevention of risks and at the time of claims settlement.

The Internet of Things was explained in detail – how it creates a digital copy of the subject under observation, how it is able to define normal behavior and then create a trigger event for outlier scenarios.

The concept of a Blockchain was introduced to the participants and how it can help in tracking a portfolio was highlighted. A Blockchain essentially is an Open Online Ledger with flexibility to add new participants as the portfolio changes. A Blockchain coupled with the Internet of Things would then allow companies to make transactions between various parties in real time and at the same time increase efficiency for the company.

Journey to Solvency II

Dr. Rajesh Dalmia, Senior Partner, Ernst & Young's



The key aspects of Solvency II were explained – the three pillar approach as compared to Solvency I regime which was prescriptive and had fixed parameters for all insurers irrespective of the risk profile of the insurer. **Dr. Rajesh Dalmia** emphasized the issue that too stringent a

regime also impacts the policyholders in the long run – since insurers would have to bear additional cost of capital and which would be passed on to policyholders or the extreme case would be insurers exiting the business.

It was more of an interactive session; with discussions on whether the Indian general insurance industry was ready to adopt Solvency II or not. Most of the participants felt that Solvency II in totality could not be adopted in India since it might be too onerous for the insurers. A middle path – somewhere between a Solvency I and a Solvency II – approach would be more appropriate under the current situation.

Summarizing & Vote of Thanks

Mr. Anurag Rastogi, Member of Advisory Group on General Insurance

The seminar concluded with a vote of thanks by **Mr. Anurag Rastogi**. He thanked all the presenters, the participants and the staff of the IAI for making the seminar a grand success. ■



About the author



Mr. C Ananthanarayanan

General Manager (Actuarial)

Cholamandalam MS General Insurance Company

c_ananthanarayanan@yahoo.co.in



4TH SEMINAR ON CURRENT ISSUES IN GENERAL INSURANCE (CIGI) ON 19TH MAY, 2017

TOPICS FOR FUTURE

- Industry summary stats by IRDA highlight what is not going right
- Education on the Practices followed globally e.g. In developed Insurance geographic. E.g US Japan
- Cyber risk, commercial lines, IRDA Changes & IRDA Regulations vs European regulations
- Pricing of commercial & new age products where there is limited data
- Risk Based Capital Regime
- One session reminding people about recent regulations and upcoming regulations.
- key note address topics need to be in panel discussion related actuaries appointment, poor underwriting
- Liability Insurance in India, Pricing crop insurance, Accounting, IFRS. Regulatory Changes & its repercussion
Issue related to global practice & how can we learn from this with ref to developed market
- Risk Based Capital Regime Pricing of commercial lines, IIB Data, More industry reports & statics
- Analytics & machine learning - both in presence & absence of data
- Topics like investment reinsurance pricing capital modelling etc. can be considered
- Present Market Practice of IBNR Reserving what it should be and its impact when RBC implemented

SUGGESTIONS FOR FUTURE EVENTS

- Before finalising the topics, it will be great if you can conduct a poll on what the participants want to hear - this can drive relevant content.
- The session on crop was good, But I wish we had more time for that session
- More seminars on General Insurance Domain please to keep updated

Introduction

A Stable insurance sector is encouraging various insurance regulators around the world adopting Risk-Based Capital ("RBC"). In Asia, many insurance markets have moved to RBC or moving towards more advanced RBC 2 regimes, the latest being China implemented RBC in 2016, Philippines is getting ready for RBC 2 in 2017, Singapore implementing RBC 2 sometimes in 2017-18, Hong Kong time frame 2017-22 is under way besides, Malaysia, South Korea, Thailand, Indonesia and Taiwan have already implemented RBC.

Why RBC?

The purpose of RBC is to bring insurance sector more responsive to changes in both local and global economic and demographic environment. Many failures have been witnessed in the past in the financial sectors particularly in banking and insurance and need was observed to have solvency regime that can withstand some financial turmoil.

So instead of having a static solvency regime where solvency capital remains more or less static despite changes in the demographic and economic environment, the world have moved and is moving towards an era where the solvency capital will be dynamic to the changes in various internal and external risk factors.

Recent RBC Entrants

Recently in 2017, Philippines which is getting ready to implement RBC 2 regime. Philippines has adopted three pillar approach to RBC where Quantitative calculation in Pillar-1, Governance in Pillar-2 and Disclosure in Pillar-3. The risk charges applied under Pillar-1 for the year 2017 is at 95.5% of confidence level increasing to 97.5% in 2018 and finally 99.5% in 2019 and beyond.

The Hong Kong Market is also working towards RBC with consultation starting in 2017 and full implementation by 2022. They are also adopting the three pillar approach similar to other markets, wherein the pillar-1, the quantification of risk capital is performed by using Market risk, Credit Risk, Life Underwriting risk and operational risk for life insurers. For non-life companies, GI underwriting risk is in place of life underwriting risk. The Pillar-2 is Enterprise Risk Management and ORSA requirement and Pillar-3 is disclosure.

China implemented the RBC is very quick time within four years between 2012 to 2016 with three pillars approach.

Key Issues, Challenges, and Opportunities

Implementation of RBC is not free from challenges, different stakeholders such as regulatory, insurance players, shareholders etc faces a different level of challenges. The section below discusses some of the issues, challenges, and opportunities that these stakeholders may face.

Regulatory Challenges

Regulators are to stay proactive and ahead of the market in spotting emerging risks along with collaborating with international agencies in sharing knowledge and learning from each other.

The role of the Regulator is not just concerned about the protection of the policyholders but also instilling confidence in the customers to have faith in the financial system of the Country. The regulator is not also free from challenges; they may find challenges putting in place all the regulation along with monitoring mechanism. They have to ensure that their own resources are in place, up to



date with skills, systems etc. Implementation of RBC is a key challenge for the regulator

Impact on Market

There is far reaching impact on the insurance industry by the implementation of RBC which may change the competitive landscape. The RBC may split financially strong players with the weaker ones; in such situation, consolidation in the market is not ruled out. In China, it was observed that smaller players required more capital to support their business model.

Such situation is addressed by altering the strategy of the Company for investment, product, sales, and marketing. Players may select target market based on their risk appetite and ability to withstand volatility rather than present everywhere.

It has been observed in many markets moving to RBC adopting lesser guaranteed products and focusing more on protection products. Where low-interest rate regime is prevailing, there is a focus on risk management in the lapse, expense, and mortality to generate a surplus from these risks. Moving to unit-linked products are other options as it requires lower capital.

More successful players have a better implementation of risk management; they derive direct value both in terms of capital and profit. In the China, there is a reward of the lower capital requirement for better risk management.

In the China insurance market, there is an allowance to keep lower capital for better risk management

Industry

In the different insurance markets in Asia, there are areas of convergence and divergence related to RBC. The convergence areas are risk framework - definition of risks and risks events, diversification of risks, economic balance sheet etc. The areas of divergence are - country specific features in the calibration of risk factors, the liquidity of financial markets, accounting standards, product specific features, methodology etc.

Many of the regulatory regimes around the world are treating cyber risk in a crude way, though it can have a catastrophic impact because there is a shortage of data, cyber insurance is limited and many insurers do not provide such protection, blurring of territorial boundaries proving difficult to pinpoint the fault increases the complexities. Currently, cyber risk sits in the operational risk category and does not gain enough importance whereas its impact could be very high; therefore, there is a need to have a separate category for cyber risk similar to catastrophe risk to allow for appropriate risk change. It should attract more regulatory focus in RBC.

Interest rate risk

Companies selling long-term traditional products with guarantees face high capital charge due to interest rate risk. Many Asian economies are lacking long-term risk-free assets to back long-term liabilities, this makes difficult to match the assets and liabilities in long terms products.

The interest rate shocks result in higher capital requirement where there is a mismatch between assets and liability duration.

To manage this risk, the Companies need to focus on assets liability management, reduction in duration gap between assets and liability and hedge the risk from derivatives.

There is a need to realign the investment strategy based on the available capital and focus on the customer target segment matching with the investment philosophy. For example, a more capital constrained Companies may invest in relatively secure assets to save capital and make product strategy that consumes lesser capital such as protection or unit-linked business.

Bigger and well-capitalized players may have a competitive advantage of investing in riskier assets to give a higher return to policyholders as compared to smaller players. Their investment strategy and risk appetite will have more powers to absorb shocks.

In order to sustain in such environment, the Companies have to keep their long-term strategy agile while focusing on the implementation of RBC.

Sri Lankan market learning from RBC implementation are; "Actuarial competency", "Senior Management involvement", "Use of scenario testing", "Application of risk appetite" and "disciplined process of actuarial assumption setting"

Risk and Capital

In an RBC regime, capital is based on risk, so risk and capital become synonymous; there is a direct relationship between the better management of risk and capital management. There is a need to invest in a risk management. In the China insurance market, there is an allowance to keep lower capital for better risk management. Risk management also allows benefits of risk diversification due to the negative correlation between the risk factors.

Many countries with risk-based capital regime have adopted three line of defense model, where the first line is the front line function, the second line is risk and compliance function and the third line is audit function

Many countries who have implemented risk management, the key challenges are the development of risk culture within the organization.

The role of CRO is becoming very important where he is to do a balancing act of helping to identify risks to meet business objectives.

In the coming times, the role of CRO will be very challenging as he will be on firing line both from management and shareholders. He should be a critical friend rather than policing.

Sri Lankan market implemented RBC in 2016, some of the learning from this market are that actuarial competency is very important in the successful implementation of RBC, Sri Lankan market has felt some challenges in garnering the actuarial resources. Senior Management involvement is very important in the implementation of RBC. Use of scenario testing and risk appetite is important in decision making. Employing disciplined process of setting actuarial assumption helps in reducing future volatility in profit emergence and capital requirement.

Strengthening Customer Experience

Better customer experience helps in improving the customer's loyalty; this also brings more loyal customer through family and friends. In the western

market, it has been found that the lapse rate of loyal customers is half of rest of the population. Such initiatives help in optimizing capital and profit.

Better expense management with lower operating expense helps in releasing the capital. This can be performed by improving IT capabilities, better fraud management, enhancing front line sales training, error free processing etc.

Operational risk

The quantification of operational risk is challenging for most of the markets, however many markets have developed Risk Control Self Assessment process and created a probability and loss amount grid as a part of Common materiality framework to address the operational risk issues.

Final thoughts

In the end, we need to ask some fundamental questions, whether the implementation of capital as a function of risk would make solvency dynamic with changes in the risk factors for which the regulatory changes are implemented around the world. Will it able to spot BankSwan?

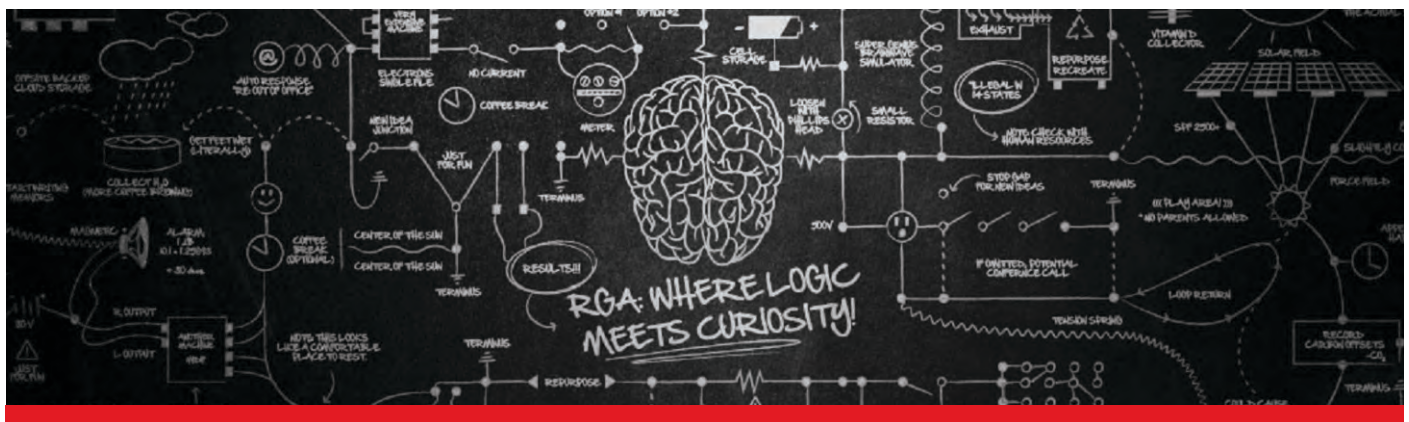
About the author



Mr. Sonjai Kumar

Vice President (Business Risk),
Aviva India Life Insurance Co.

Sonjai.kumar@avivaindia.com



RGA is a leader in the reinsurance industry. The employees know it, as do RGA's customers, who partner with the company because of its customer-centric approach and superior level of service. It's a main reason the company is an employer of choice. To help us with this endeavor we are seeking a qualified actuary with 7 years of experience in insurance/reinsurance or financial business for the role of **Associate Director – Pricing** to join our team in Mumbai, India.

In this role you will be responsible for the pricing of individual business through pricing basis derivation, modeling, risk analysis and other new business development activities. You will deliver pricing and associated data analytics, set and periodically update pricing bases and contribute to new products and reinsurance structures design.

Have we piqued your curiosity? For more information and to apply for the role, visit us at <http://www.rgare.com/careers/search-careers> (Job No. IND00037)

RGA



Mr. Keyur Parekh has joined as Head of Reporting and Valuation with Aegon Life Insurance. He is a Fellow Actuary and a Chartered Accountant. He has overall six years' experience in Life Insurance with about 3.5 years' Indian industry experience with Reliance Nippon Life Insurance in the area of Statutory Valuation, ALM and Ind AS. Prior to joining Reliance Nippon Life Insurance he has worked in the Financial Reporting and Stochastic Model Operation team of Prudential Process Management Services. He will be based in the Mumbai office.

PEOPLE'S MOVE



*The Actuary India wishes many more
years of healthy life to the fellow members
whose Birthday fall in June 2017*

MR. DIONYS EMIL BOEKE

MR. K SUBRAHMANYAM

MR. LIYAQUAT KHAN

MR. P A BALASUBRAMANIAN

MR. RICHARD WALTER LEISER-BANKS





The Government started the Swavalamban Scheme in 2010-11, to address the longevity risks among the workers in the unorganised sector and to encourage the workers in the unorganised sector to voluntarily save for their retirement, who constitute 88% of the total labour force of 47.29 crore as per the 66th Round of NSSO Survey of 2011-12, but do not have any formal pension provision. However, coverage under Swavalamban Scheme is inadequate mainly due to lack of clarity of pension benefits at the age after 60.

Therefore, the Finance Minister announced a new initiative called **Atal Pension Yojana (APY)** in his Budget Speech for 2015-16. The APY will be focused on all citizens in the unorganised sector, who join the National Pension System (NPS) administered by the Pension Fund Regulatory and Development Authority (PFRDA) and who are not members of any statutory social security scheme. Under the APY, the subscribers would receive the fixed pension of INR 1000, INR 2000, INR 3000

INR 4000 per month or INR 5000 per month, at the age of 60 years, depending on their contributions, which itself would vary on the age of joining the APY. The minimum age of joining APY is 18 years and maximum age is 40 years. Therefore, minimum period of contribution by the subscriber under APY would be 20 years or more. The benefit of fixed pension would be guaranteed by the Government in the sense that if the actual realized returns on the pension contributions are less than the assumed returns for minimum guaranteed pension, over the period of contribution, such shortfall shall be funded by the Government. On the other hand, if the actual returns on the pension contributions are higher than the assumed returns for minimum guaranteed pension, over the period of contribution, such excess shall be credited to the subscriber's account, resulting in enhanced scheme benefits to the subscribers.

The Centre's flagship pension plan, launched with much fanfare last year, is struggling to stay afloat. It has been able to bring only about 10 per cent of the targeted two crore under its ambit. The Atal Pension Yojana (APY), aimed at ensuring pension for those who have neither employment security nor retirement facilities, seems to have run out of steam right from the start.

As per the circular issued by PFRDA dated 7th November 2016, APY has enrolled 37 lacs subscribers till October 2016 which is even less than 1% of the total eligible population. Chart-1 depicts proportion of APY subscribers as against eligible population in selected eight states. Further, PFRDA proposes to cover at least 2% of the eligible population under the APY ambit.

The Government of India is also contributing additionally to the plan which is 50% of the subscriber's contribution or INR 1000 whichever is less. The trend in government payout that varies under each of the three scenarios are shown in the graph below.

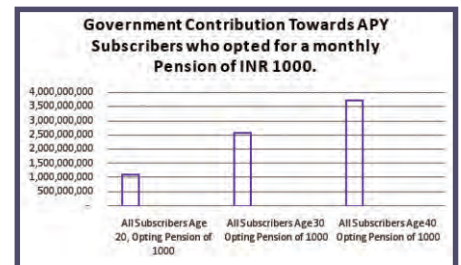


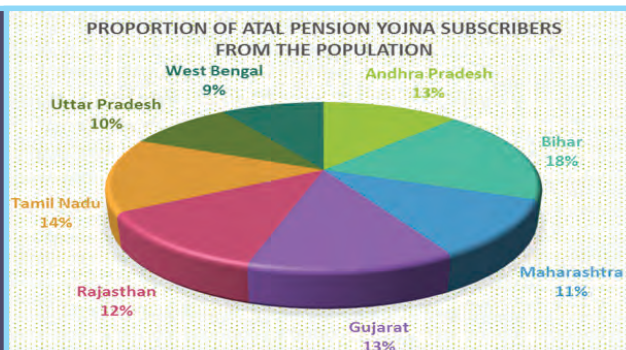
Chart-2 – Government Contribution under three Scenarios

As per the contribution chart under APY, the monthly contribution at age 20, 30 & 40 is INR 50, INR 116 & INR 264 respectively in order to receive monthly pension of amount INR 1000. If we now assume that all 37 lacs subscribers are eligible for a contribution from government. Hence, to figure out the amount the government will contribute, an example is presented.

Let us look at 3 scenarios, where the subscriber's age at joining the plan is assumed as 20 years, 30 years and 40 years respectively, to view the quantum of the contribution. Under each of the scenarios for contribution by the Government works out to 111 Crores, 258 Crores and 370 Crores respectively in order to service a pension of INR 1000. If we were to assume that the total members of APY are distributed equally, such that number of subscribers who have opted for monthly pension benefit of INR 1000, INR 2000, INR 3000, INR 4000 and INR 5000 are same. The

Chart-1 - Proportion of Atal Pension Yojna Subscribers against the Total Eligible Population

Source: - www.pfrda.org.in



contribution by the Government works out to 281 Crores. Also the government contribution will remain fixed for those member whose annual contribution exceeds INR 2000. It is believed, that the government is co-contributing to the plan so that corpus could gain maximum return in order to provide better return to the plan members.

But the reality is different.

It is seen that the benefit that gives monthly pension of INR 5,000 per month with a return of corpus of INR 8.5 lakh, the monthly contribution is INR 577 for a member who ages 30. Therefore, the rate of return at which annual contribution, i.e. INR 6,924 reaches INR 8.5 lakh is approximately 7.90% which is even less than the prevalent returns on Public Provident Fund (PPF) and Employees' Provident Fund (EPF). Now, if we add the government contributions to this, an internal rate of return of 7.48% yields INR 8.5 lakh.

This illustrates that the growth of the corpus is still lower than the rate of one year bank fixed deposit (around 8 to 8.5%). So it stands to reason, either the subscriber is not getting the government handout or is getting a sub-optimal return. In addition, if we account for an inflation of 5% p.a. over a period of 20 years, the real value of monthly pension of INR 1000 will be only INR 377. Even though a guaranteed benefit is offered at bare minimum contribution and by spending additionally, APY fails to address the concerns of the unorganized sector which covers the maximum population of India.

APY uses a strong penalty device for default in contribution, freezing of account if no contribution received in 6 months, followed by deactivation of account after 12 month and its closure after 24 months which is defeating the purpose of providing a savings mechanism. It is always found that the workers in the informal sector often have liquidity issues and thereby may



not be able to contribute on time, but they do come back over subsequent periods. Also, a lump sum benefit may make the scheme more attractive.

All said and done, there still is scope of enhancing the coverage of APY and thereby making it a successful saving plan for the unorganized sector. This could be done by providing benefits with enough coverage to meet member's needs after attaining the age of 60 years. There are different kinds of guarantees, and several ways to design minimum return guarantees such as offering index linked benefit, linking contribution to the member's income, availability of government co-contribution to all the members irrespective of their scheme joining date, removal of penalty, bringing clarity over benefit structure and developing investment guidelines in order to provide desired benefits. Awareness can be brought by targeting policy which should consider the level of education, language skills and current financial behaviour of needy and eligible people of the country. There should be adequate administrative infrastructure and an effective distribution network across the

country, as this will help increase the reach and efficiency of the services. In addition cost benefit analysis and actuarial calculations would be required to bring insight so as to make this plan successful. A look at traditional investment patterns in the middle and low income groups of the country reveals that mass investment schemes need a great push.

The time, attention, efforts and minimum standard of living which could be given to an APY beneficiary, and the dedicated focus that such a wonderful scheme deserved is completely missing. Many of the mistakes of the APY could have been avoided by the use of this process. It can still be applied to APY now. ■

About the author



Mr. Mohammed Noman Shaikh

Actuarial Analyst,
M/s.K. A. Pandit Consultants & Actuaries.

noman@ka-pandit.com

Cancer is one of the leading global killers, with annual new cancer cases projected to rise to 17 million by 2020. Across the world, more than a fifth of all deaths from non-communicable diseases are from cancer. What will this lead too? From our research, we foresee that almost half of the world's new cancer cases will occur in Asia. South Koreans are more likely to die from cancer than from any other cause, while in Singapore, where one in three people dies of cancer, there are 13 deaths and 31 new diagnoses every day. In China, cancer is the leading cause of death in both urban and rural areas – an eight year old girl recently became China's youngest lung cancer patient, with doctors attributing her condition to air pollution.

In India, incidence of cancer was estimated at 1.25 million cases in 2016. However this is based on the number of cases reported, and given the under diagnosis of cancer in India, it is estimated that the real incidence of cancer could be almost twice as high. The under diagnosis of cancer is due to a lack of awareness about cancer as well as a low rate of medical screening for the disease, and consequently approximately 80% of all cancers in India are diagnosed in stages III or above. This late stage presentation of the disease is almost twice the number compared to US, UK and China, and the cancer mortality rates in India are also four to six times higher than the US, with 70% of cancer patients dying in the first year of their diagnosis. Perhaps the most worrying trend in India, is that 15% of all cancer diagnosis in India is in individuals below the age of 21, compared to the global average of 0.5%.

These few statistics and real life cases highlight the profound impact cancer has on the health of Asia's population; they also emphasize the importance of the industry's understanding of incidence and risk factors, including past and emerging trends in the development of the most prevalent types of cancer in this

region.

When it comes to prostate cancer, the incidence of prostate cancer is lower in Asian men than in Western populations, however, a rapid increase in incidence has been observed over the past two decades in Asia, with no signs of reversal. This rise is believed to have been driven by advances in detection of prostate cancer and the adoption of western lifestyle, including eating habits. Advanced biomarkers will be a key part of the next generation of detection tools and will likely mean that prostate cancer can be identified at an earlier stage.

Colorectal cancer (CRC) is the fourth most common cancer in the world, after lung, prostate and breast cancer, with over 1.3 million new cases diagnosed every year. Of these, approximately 45% are being diagnosed in Asia, and over 331,000 people died of CRC in 2012. There has been dramatic rise in CRC incidence and mortality in Asia over the past two decades, with many Asian countries (China, Japan, Singapore, South Korea), experiencing a two to four fold increase in incidence during this period. The rising trends in CRC are more pronounced in affluent than in poorer societies and differ substantially between ethnic groups.

Swiss Re recently conducted regional studies and mapped Asia's changing patterns in cancers as a part of the "Swiss Re Asia Cancer Trends Study". In Asia, the economic growth in the region has powered a dynamic shift in lifestyles, with increased urbanization, adoption of westernized diets and obesity contributing to an upward cancer trend and changing cancer pattern in Asian countries. This is predicted to lead to an increase in incidence in the region from 6.1 million to 10.6 million by 2030.

At the same time, the infrastructure to appropriately manage the growing cancer burden varies widely across the region. Cancer-related services, including

vaccination, screening, diagnosis and treatment, require substantial investment to ensure access to both preventive and curative care for all sections of the population.

Cervical cancer is the first female-specific cancer that Swiss Re has explored as part of the Asia Cancer Trends Study. Here are some key insights from the report:

- ▶ The fourth most common female cancer in the world, with incidence rates which vary significantly across Asia.
- ▶ Infection with Human Papillomavirus (HPV) is the major risk factor leading to the development of cervical cancer.
- ▶ This is one of the few cancers for which we can identify the development stages of the cancer cells, whereby the progression from early stage to advanced stage may take years. This provides a significant window of opportunity for early screening and medical intervention.

Colorectal cancer is the fourth most common cancer in the world, after lung, prostate and breast cancer.

- ▶ In 2012, there were over 1.3 million new cases of colorectal cancer diagnosed and Asia accounted for just over 600,000 new cases
- ▶ Over the past two decades, many Asian countries including China, Japan, Singapore and South Korea, have experienced a two to four fold increase in colorectal cancer incidence.
- ▶ The rising trend in the incidence and mortality from colorectal cancer is more pronounced in affluent than in poorer societies and differs substantially between different ethnic groups.

Liver cancer is the sixth most commonly-diagnosed cancer worldwide. Below are some key insights from the report:

- ▶ Asia as a whole is an endemic area for liver cancer, contributing 76% of new cases and deaths in liver cancer globally
- ▶ Risk factors related to liver cancer, such as hepatitis B and C, as well as alcohol intake, are important considerations at the underwriting stage. 80% of liver cancer in the region is caused by Hepatitis B and C.
- ▶ While treatments for some of these drivers such as Hepatitis C show great promise, their cost (up to \$168,000 per treatment) remains prohibitive
- ▶ Liver cancer is one of the few cancers that has shown a reducing incidence trend over the past decade, and this is likely to be due to vaccination against HBV, improved post-infection control and regulations on food contamination.

Prostate cancer occurs mainly amongst elderly male population. It is attracting extensive attention in Asian insurance industry, as observed incidence rates have increased rapidly during the past decade and continue to rise today.

- ▶ Despite the increasing trends, both incidence and mortality of prostate cancer in most Asian populations are still much lower than in Western populations.
- ▶ Autopsy studies have also found that the prevalence of asymptomatic prostate cancer is much higher in men over the age of 70 in the United States than in Japanese men over the age of 80 (81-83% vs 48%)
- ▶ A Western diet rich in red or processed meat with high total and saturated fat content tends to elevate the risk of prostate cancer, while elements of an Eastern diet including green tea and soybean may have a protective effect.

Stomach Cancer is the fifth most common malignant tumor worldwide, when figures from both men and women are combined.

- ▶ Up to 73% of global cases of stomach cancer occur in Asia, making it one of the most significant tumors in the region
- ▶ Statistics show that its prevalence varies among countries in Asia, with the highest incidence rates in Japan and Korea
- ▶ In Japan and Korea, stomach cancer is the most cancer amongst males and is one of the top five most common cancers for females

Thyroid Cancer presents its own unique set of challenges. The report found:

- ▶ While it is one of the most prevalent malignancies in the world, the vast majority of cases are dormant and exhibit no adverse effects on the patients.
- ▶ The biggest risk facing insurers who provide insurance benefits payable upon diagnosis of cancer is the widespread adoption of screening procedures, as has already been observed over the past decade in South Korea and also more recently in certain regions of China. In Korea for example, the incidence rate of Thyroid cancer between 1993 and 2011 increased 15 fold, yet the mortality rate remained stable.

The Swiss Re Asia Cancer Trends Study provides a comprehensive view of the changing burden in Asia of these cancers along with breast and lung cancer. In addition to analysis of incidence rates, risk factors and emerging trends, the study also discusses appropriate management and investment strategies to strengthen healthcare infrastructure in the region.



Countries in Asia and their governments have a significant role to play in trying to tackle the causes of prostate and colorectal cancer. For example, education programs to increase public awareness would contribute to increased screening rates and prevention, both being potentially effective methods of controlling the impact of the disease. For insurers, developing and refining products that help to mitigate the financial risks of cancer is a key factor in helping to support individuals. In any case, all stakeholders (e.g. governments, health care providers, insurers and reinsurers) need to work closely together to achieve optimal results.

As a leading reinsurer, Swiss Re's aim is to raise awareness and enhance the industry's knowledge of cancer risks, and also providing support to insurers in developing solutions that help protect individuals and groups, and in doing so, make Asia's societies more resilient. ■

About the author



Mr. Detloff Rump,
Chief Underwriter
Asia, Life and Health, Swiss Re



Current status

Pakistan has a relatively small life insurance industry. The 2015 life insurance “premium to GDP ratio” was 0.59% compared to the global average of 3.3%. However, despite its small size, this industry has been growing at a significant rate. From 2012 to 2015 Gross Written Premium (GWP) increased at a compounded annual growth rate of 21%. Over the same period the industry's total assets increased from PKR 429 billion to PKR 777 billion.

This growth is the result of several factors such as improving perception of life insurance, increased awareness of tax benefits and introduction of Shariah Compliant alternatives (Family Takaful). However, by far the most important factor responsible for this growth is the development of the Bancassurance distribution channel. For the largest private insurers, 2016 Bancassurance Individual Life GWP represented more than half of 2016 Individual Life GWP.

Future prospects

Although the Bancassurance distribution channel continues to grow, insurers are mindful of the fact that this channel may not be able to sustain exponential growth over the next five to ten years. It is for this

reason that in 2016 the entire industry spent significant time and growth capital on the exploration of alternate distribution channels.

The theme of this exploration had common elements for all companies. For example, all products that were developed had low ticket sizes. Furthermore, almost all products had little to no underwriting requirements. However, while the products were similar, their distribution strategies differed widely.

Some companies decided to market “card based insurance solutions” directly to customers. This was a genuine attempt at building a mass retail distribution channel. The rationale behind using card based insurance solutions was that over the last decade the typical Pakistani consumer has grown accustomed to using “scratch cards” for various products such as cell phone credit. One insurance solution involved selling “insurance debit cards” that can be activated at the point of sale using third party technology. Another solution involved selling “insurance scratch cards” that can be activated over the phone or mobile sms. At least two insurers were active in these areas of development.

Instead of developing an organic mass retail distribution channel, a few companies decided to make use of existing distribution channels of other industries. For example, almost all mobile operators have recently developed “mobile bank accounts” that can be used for various financial transactions such as bill payment and money transfer. A few life insurers have teamed up with these mobile operators to offer life insurance solutions directly to their customers. This distribution strategy has the added advantage of being cashless.

Finally, some life insurers have started to realize the importance of digital distribution. While life insurers do offer online insurance solutions, very few go all the way to offer a complete end to end digital solution. The larger insurers are currently working on these digital channels and are expected to make product offerings by the end of 2017.

Regulatory environment

In the wake of this growth and innovation, there has been a lot of activity from the regulator's side. Pakistan's life insurance industry is regulated by the Securities and Exchange Commission of Pakistan (SECP). Key recent regulations include Insurance

Accounting Regulations 2017, Insurance Rules 2017 and Directive for Life Insurance and Family Takaful Illustrations 2016. Furthermore, there has been a proposal to replace and repeal the Insurance Ordinance 2000—easily the most important piece of regulation in the insurance industry right now. The proposed regulation is called the draft Insurance Bill 2016. Some of the proposed changes are

- 1) Mandatory volumes of microinsurance business to be conducted by insurers
- 2) New additional risk based capital requirements
- 3) Appointed Actuary requirement for non-life insurers
- 4) New regulations for insurance intermediaries

- 5) Mandatory information sharing in “WebAggregator” projects
- 6) New requirements for registration of reinsurers

It is expected that the strengthening of the life insurance regulatory framework will continue at a quick pace over the next few years.

Conclusion

These are optimistic times for the life insurance industry of Pakistan. Growth has been strong over the last five to ten years. However, constant innovation is required on the product and distribution fronts to ensure that this growth continues into the future. 2016 has been the first year in which real movement was seen on these fronts. Finally, although

companies have started moving in the right direction, it will be up to the regulator to find the right balance between protecting policyholders and allowing change in the life insurance industry. ■

About the author



Mr. Nauman Cheema

Chief Executive, Nauman Associates

info@naumanassociates.com



Institute of Actuaries of India

Unit no. F-206, 2nd Floor, 'F' Wing, Tower 2, Seawoods Grand Central, Plot no R-1, Sector 40, Seawoods, Near Seawoods Railway Station Navi Mumbai - 400 706
Tel Number: +91 022- 39686060 Fax Number: +91 022- 39686050

Publication Of Advertisement In the Actuary India Magazine

To Publish An Advertisement In Magazine, Please Find Below Details:

SR	PARTICULARS	DETAILS
1	Advertisements send to	library@actuariesindia.org
2	Cutoff Date	25th of the Month for publishing
3	Periodicity	Monthly
4	Magazine Publication Date	1st of the Month
5	Format	Pdf, Cdr, Jpg
6	Size	Full page 11.75'(Height) x 8.25'(Width) (cut size) Half Page - 5'(Height) x 7.25'(Width)
7	Charges	Full Page -Rs. 30,000/- Half Page - Rs. 20,000/-

*Magazine and Website rates are inclusive. There is no extra cost.

*Payment procedure will be mailed to the concerned authority on the receipt of advertisement.



The advertisement can be placed in the magazine subject to space limitations and depending on the printing & publishing schedule.

Employment advertisement will be uploaded on website and also conveyed to the members through mail.



Institute of Actuaries of India

Unit no. F-206, 2nd Floor, 'F' Wing, Tower 2, Seawoods Grand Central, Plot no R-1,
Sector 40, Seawoods, Near Seawoods Railway Station Navi Mumbai - 400 706



Tel Number: +91 022- 39686060



Fax Number: +91 022- 39686050



vinodkumar@actuariesindia.org

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

Your
bold
ambitions

+

Our
healthy insights

=

More
moments like this



Finding fresh ways to provide more people with greater security. Helping people to build for the future and enjoy longer, healthier lives. These are ambitions we share. At Swiss Re we believe that partnering with you will create innovative ways to manage health issues and improve the outcomes. That's why we want to share our expertise and insights from around the world to help you address your market needs. And that's why we truly relish those moments when we see results: those achievements, great and small, along the road to a healthier future for all. **We're smarter together.**

www.swissre.com