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INDIAN ACTUARIAL PROFESSION
Serving the Cause of Public Interest

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- Pricing, including development of pricing tools, price monitoring
- Reserving for complex general insurance lines of business
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- 5+ years of experience in general insurance pricing / reserving / capital modeling
- Superior analytical, research and problem-solving skills
- Good working knowledge of actuarial reserving / pricing software
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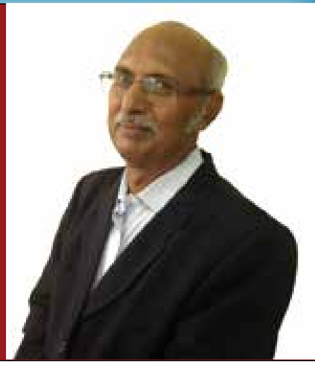
FROM THE EDITOR'S DESK

K SUBRAHMANYAM



ksmanyam52@ymail.com

Greetings

Elections are over. Results have come. It is nice to note that youngsters will continue to hold key positions. New President is **Mr. Rajesh Dalmia**, young and energetic. New Vice President is **Mr. Sanjeeb Kumar** - young and energetic. **Mr. R. Arunachalam** is Hony. Secretary. He is also very young and energetic. Congrats to the new team. Hope they will deliver the best results for the profession. We wish to place on record of the previous team headed Mr. Karunanidhi for their good work to the profession.

I noticed the missing name in the list of members of Advisory Group on Pension, Employee Benefit and Social Security, in the August 2014 Issue. The name is none other than Arun. We regret the error. He ceases to be member after he becomes council member.

Hope members enjoyed reading the articles from our members. We are expecting opinions. You are encouraged to send your views/opinions to the Editor (at the IAI address).

News for senior citizen members: There is Varishta Pension Bima Yojana, Government of India's attractive Pension Scheme, administered and sold by LIC of India. This offers 9% return. Hurry up: this pension product is offered for limited period. Contact LIC of India in this regard.

We invite opinion and comments on the articles published in the magazine.

E-mail: library@actuariesindia.org

5TH CAPACITY BUILDING SEMINAR ON INTRODUCTION TO R & MODELLING SKILLS

- Organized by : Advisory Group on General Insurance, IAI
- Venue : Hotel Sea Princess, Mumbai
- Date : 8th August 2014

The seminar was arranged to build and enhance the skills of general insurance professionals in using R, an open source statistical software for actuarial analysis. Mr Debarshi Chatterjee, Secretary, Advisory Group on General Insurance welcomed the participants and gave a brief introduction about the speakers.

Debarshi Chatterjee

Session 1: Commercial Pricing & Rate Adequacy

Christopher Simmons, Actuarial Manager, AXA Business Services, United

Christopher Simmons and Irvinder Kohli

Kingdom and **Irvinder Kohli**, AXA Business Services, Pune spoke on commercial lines pricing and rate adequacy. They dealt with commercial insurance: concept and components and definition of small-medium and large enterprises. Expounding on characteristics of commercial policies, they underscored non-standard policy wordings, heterogeneous nature of industries, processes and risks, volatile claim experience, dearth of quantity & quality of data and several soft factors influencing underwriting and pricing.

The speakers further reasoned that, since features of personal portfolio are better suited to statistical analysis, the field has witnessed deeper involvement of actuaries. They elaborated on the methodologies used to price commercial lines and to check rate adequacy. Pricing is heavily influenced by underwriting cycle and intermediary influence, among others. Premium in commercial lines is typically calculated by applying a rate to a measure of exposure. Exposure depends on the type of business. Three major rating methods considered are viz. the technical rate which is based on historic performance analysis, experience rate based on a burning cost method of the claims experience and underwriter rate based on underwriter's experience and assessment. The rating currently is a blend of all the above mentioned rating methods. A special mention was made about property and liability lines as they pose a major pricing challenge due to limited information. As far as rate adequacy is concerned, they cited Loss ratio merging as one of the important factors.

They concluded with suggestions for actuaries such as prior portfolio research, starting stint with SME before branching into commercial pricing, developing reports to enhance underwriter's understanding of dynamics, communicating the limitations and uncertainty in any analysis and playing a pivotal role in data management. To a question if there is a minimum data requirement to be met by an insurer in United Kingdom to enter a product line, the speakers replied that no such rules exist at the moment. They emphasized on the need to have an objective basis for

About the Author

DEEPU.V@ECGC.IN

Deepu V is Manager, Actuarial Department with Export Credit Guarantee Corporation of India Ltd., Mumbai. He is a post graduate in Business Administration with specialization in Finance and a Student member of the Institute of Actuaries of India.

pricing discounts and for determining underwriting cycles.

Session 2: Introduction to R

The second session on "Introduction to R" was handled by Debashish Banerjee,

Debashish Banerjee

Priyam Banerjee and Kranthi Ram Nekkalapu, all of them from Deloitte Consulting LLP, Hyderabad. **Debashish Banerjee** took the participants through the history of R and comparison of R and other statistical tools. He mentioned that all downloadable programmes of R are tested and proven. He further spoke on the details of commercial angle of R, elaborating on R based softwares such as Revolution-R compatible with cloud computing and R-Excel in which R is connected to excel at back-end. Data in matrix and array form is most suited for analysis using R. R stores information and operates on objects. As R is an open-source software that permits any user to contribute towards additions / modifications to the software, a question was raised about the process of validation of software. Debashish Banerjee replied that any addition / modification is included in software only after verification and validation by a team of professors. He however clarified that the process of validation is not same as accountability assumed by provider of a licensed software.

Then **Priyam Banerjee** familiarized the participants with the process of

Priyam Banerjee

downloading R. He was then joined by **Kranthi Nekkalapu** in illustrating the

Kranthi Nekkalapu

basic arithmetical operations in R and importing external data into R system. The speakers then demonstrated various examples of syntax, value assignment to variables and started on various data formats in R. They also mentioned that in course of using R, if the user does not know how to use a function, or is unaware of the options or default values, typing **help** (functionname) where function-name represents the function the user is interested in, the **help** facility will clarify with examples .

Session 3: Introduction to R - Case Studies

Post lunch, M/s Banerjee and Nekalappu continued with elucidating several advanced data formats in R and data pre-processing methods. Then they touched upon Comprehensive R Archive Network (CRAN). CRAN is a network of ftp and web servers around the world that store identical, up-to-date, versions of code and documentation for R. The R community has written 2800+ extensions to R's basic statistical and graphical functions, available from the CRAN repository.

The installation and loading of R packages can be done within R by going up to the Packages menu and clicking on "Install package(s)" from CRAN. Alternatively the install.packages() function can be used from command line as well. Once installed, these packages can be loaded into R. Of special interest to the participants was the "Actuarial"package.

The team then discussed actuarial techniques in R and shortly the participants joined the speakers in practically applying the techniques on the case study. The speakers also shared details of invoking a package from library into R and help modules available on net. The other facilities available in R included functions for fitting statistical models such as Generalized Linear Models (GLMs), functions for fitting curves to smooth data, functions for optimisation and equation solving, and graphics. The session concluded with path details of getting a trained and test data set to work on R. On a query about further help available on R from the internet, it was mentioned that help on R can be found from rseek.org (search engine) and rproject.org.

Session 4: Building Robust Excel Models

Adarsh Agarwal

Adarsh Agarwal, Bajaj Allianz General Insurance Company enlightened the participants on methodology of building robust excel models. He talked about practices of having an objective sheet and a sheet with a short explanatory note on the contents of each sheet. He further stated that, to heighten data accuracy, augment method assurance and enable easy replication of the data analysis for different lines of business or diverse data sets, reconciliation checks coupled with a clear audit trail may be adopted. The audit trail could link values between different sources, copy pasting numbers and use comments. Proceeding further he suggested using macros, avoiding side calculation, highlighting cells with inconsistent formula and comments for cells not updated. Complex formulas should be avoided for user convenience.

A "sense-check" using conditional formatting will prevent the user from getting lost while handling huge data volumes. An IBNR computation using multiple methods like the chain-ladder method, Bornhuetter-Ferguson method, Frequency-Severity method etc. using Excel was demonstrated to the audience to explain the feasibility and advantage of modelling using Excel. He concluded that bringing all assumptions and inputs together, assembling outputs and maintaining clear consistent formatting including units of the data will ensure correctness of results.

Pankaj Kumar Tewari, IRDA thanked the speakers of the day for sharing valuable

Pankaj Kumar Tewari,

insights and disseminating knowledge on R. He suggested that, in the future, the organisers could consider focussing seminar on a single theme instead of many. He also thanked the audience for their active participation.

■■■

Success is one percent inspiration, ninety-nine percent perspiration.

- Thomas Edison

Feedback of the 5th Capacity Building Seminar

Great work. Thank you for putting this seminar for us

During the R Session , it was a little difficult to understand & type the code at the same time.

I think there should be more session on pricing (General Insurance) & Capital Modelling

"R" should have been given more time so that we could have learnt more. Sessions like these should be included in "GCA".

For workshops need more time

These seminars needs to be held extensively for at least 2 days because the duration taken to understand & practice which will require some time. Please conduct separate sessions on GI & reviewing using R

Good Practical sessions, more such session could help.

Time provided for "R" training was too short. It should have been for longer period to understand the basics more clearly.

Very Nicely organized

3rd Seminar on Enterprise Risk Management

Date: 10th October 2014   Venue: Hotel Sea Princess, Mumbai

Topics:

1. **Establishing risk appetite and how it is implemented;**
2. Comparison of issues faced in implementation of a risk management framework in life & non-life sectors;
3. Issues that may arise in the Indian context;
4. Sharing of practices in non-insurance sectors in India as well as a view from market analysts.

Speakers:

- B N Rangarajan (Exide Life Insurance)
- Kunj Maheshwari (Towers Watson);
- Sam Morgan & Shamit Gupta (Milliman);
- V Sriram & M Harish Kamath (IMAC);
- Eamon McGinnity (KPMG);
- Pratik Shah (E & Y).

General Points:

- Registration Fees : Early Bird till 1st October, 2014 ₹ 5000 & Standard Rate ₹ 6000 (plus 12.36% Service Tax)
- Registration : Starts 10th September, 2014 & Ends 5th October, 2014
- Register at : IAI website → Seminars → Upcoming seminars within ndia → 3rd Seminar on Enterprise Risk Management.
- CPD Credit for IAI Members : 4 hrs
- Point of Contact for any query : Quintus Mendonca (quintus@actuariesindia.org)

REPORTAGE

1^{ST} CAPACITY BUILDING SEMINAR ON KEY ASPECTS OF RISK MANAGEMENT FOR LIFE INSURANCE COMPANIES

- Organized by : Advisory Group on Life Insurance, IAI
- Venue : The Club, Mumbai
- Date : 9th August 2014

Sanjeev Pujari, Chairperson of Advisory Group on Life Insurance inaugurated the seminar. In his welcome speech he emphasised on the need of risk management and an Actuary's role in understanding, calibrating & managing risk. He highlighted the importance of Economic Scenario Generator (ESG) as a tool to calibrate the risk. He also mentioned that the life insurers have to demonstrate to the Regulator how they are enhancing value to the customer & are addressing the issue of customer protection. He also talked about the change in regulation regarding Reinsurance limits, imposed by the Regulator recently.

Sanjeev Pujari

The first presentation by Mr Jonathan Lau was on the topic of 'Economic Scenario Generator & its role in Actuarial modelling' and the second presentation by Mr. Subhash Chandra was on 'Reinsurance optimization – the theoretical and practical aspects'.

Session 1: Economic Scenario Generator & its role in Actuarial modelling

Johnathan Lau

Speaker: Jonathan Lau, FIA, Solution Specialist, Moody's Analytics

Jonathan joined Moody's Analytics in January 2013. He works in the EMEA Sales team as an Actuary and has assisted insurers in developing solutions for their Economic Capital framework. He has also led a number of client projects in capital modelling and advanced asset modelling. Before Moody's Analytics, Jonathan was working for Zurich UK Life in Product Development and MCEV Reporting. Jonathan is a Fellow of the Institute of Actuaries and holds an MSc in Risk and Stochastic and BSc in Actuarial Science from the London School of Economics and Political Science.

Jonathan provided an overview of an Economic Scenario Generator (ESG) and introduced the various uses of stochastic asset models in actuarial fields. He looked at the selection and calibration process of asset models and discussed issues modellers face with respect to calibrating asset models to the Indian market.

ESG (Economic Scenario Generator) Overview

Stochastic simulations are required for valuation of cost of options, guarantees, economic capital computation etc. This is because future is unknown. We may have expectations about the future but we are never certain about it. Hence, we simulate many future scenarios based on mathematical stochastic models. Mathematical stochastic models simulate returns of financial assets.

The ESG uses Monte Carlo Simulation to generate thousands of simulations of risk factors across multiple time periods. While projecting the scenarios, it considers joint behaviour of multiple risk factors like: Nominal Interest Rates, Real Interest Rates, Inflations Indices, Returns by class of asset, Credit Spreads, Alternative asset returns, Interest rate implied volatility and equity implied volatility, Exchange rates, Macroeconomic indicators such as GDP, wage indices, Non market risk such as mortality and lapse rates.

ESG Global Multi Economy Model can be structured by considering **inter economy correlations** as an additional factor. **Correlation** ensures plausible economic relationship between asset classes and economies.

The objective is to produce **realistic** and **justifiable** projections of financial and macroeconomic variables.

About the Author

aparna@ka-pandit.com

Aparna is working as a senior consultant at M/S K. A. Pandit, Consultants & Actuaries. She has wide range of experience in Life Insurance including experience for start-up company, USGAAP, RBC, Pricing, Valuation & modelling in Prophet.

Use of the ESG in the insurance sector:

1. Calculation of cost of guarantees and options, EV, Fair value, Best estimate reserve-- Technical Provision (Time Value).
2. Economic capital calculation : Internal models.
3. Advanced uses of stochastic models (Use test): ALM, Asset allocation business planning, Hedging, Pricing & product development etc.

ESG can be done on two basis: market consistent or real world.

ESG Model Selection and Calibration

The approach involves 3 main activities:

1) Developing and documenting a set of stylized facts and beliefs.
2) Use these to select/build/structure, calibrate and validate models.
3) Look at real world markets to validate and review the stylized facts and models.

These are all ongoing activities thereby requiring frequent calibration, Regular Real World Target updates and methodology reviews. As calibration is an art, there is some amount of subjectivity involved in data sources, data policies, weighting and judgement.

Important thing relating to Data used for model building & running is to use all credible data available. This involves:

- Combining market data of expectations: e.g. option implied volatility, consensus data
- Filtering and cleaning data
- Exponentially-weighted moving average ensuring more weight being placed on recent observations
- Checking consistency across asset classes

Market consistent ESG

Mathematical models are used to value complex cash flows. These can be asset or liability cash flows. The model is based on No arbitrage theory. Model prices replicate market prices. Model simulates scenarios that can be used to value cash flows where a market price does not exist.

Real World ESG:

Real World ESG models are calibrated to realistic distributional targets. Probability distribution of risk factors like equity, interest rates etc. are translated into probability distribution of the Net Asset Value. This Holistic approach captures dependency between risk factors. Internal model approach also contains 'Use Test' information such as risk exposure decomposition and reverse stress test material.

Example: Solvency/ economic capital computation, Strategic Asset Allocation and Portfolio Optimisation, ALM Hedging.

Challenges in Indian Capital Markets are:

❖ Mathematical assets need to be calibrated to market data (bond yields, equity prices, etc.)

❖ Lack of good quality data. Data coverage is not consistent, Market data does not have long enough history, Lack of liquidity in certain parts of asset market.

❖ High volatility challenges the stability of results.

Answering the challenge:

❖ Consistent choice of index across all economies for consistent and comparable data

❖ Adjust weighting scheme to reflect the shorter data history

❖ Set global targets to make economic sense of the stochastic scenarios instead of blindly calibrating to poor quality data.

Conclusion:

ESG is a good tool to calibrate the financial risk involved in the life insurance business. This involves using the available data, developing a model, interpreting the results & implementing these results to minimise the possible risk. The Actuary's role is critical at each of these steps. In India, there are data related challenges. However there are some quick fixes as suggested in Jonathan's presentation. Rather than waiting for an ideal data situation, the life insurance companies can move ahead on the path shown in his presentation.

Session 2: Reinsurance optimization – the theoretical and practical aspects.

Speaker: Subhash Chandra, Associate Director, Life Reinsurance, Aon Benfield

Subhash is Associate Director in Aon Benfield, Life Reinsurance, APAC based in Singapore, where he holds a combined

Subhash Chandra

role of actuarial and broking. Prior to this, he has worked in RBI, Prudential, Kotak Life, Munich Re and Mercer. Subhash Chandra, a graduate from Delhi University, post graduate from Indian Statistical Institute (ISI), having more than 8 years of experience in the industry, across life insurance and reinsurance.

Life insurance companies buy reinsurance primarily to reduce underwriting risk and thus enhance the stability of their income stream over time. Reinsurance comes at a cost and therefore it is important to maintain a balance between the perceived benefit of buying reinsurance and its cost. During the session **Reinsurance Optimization** was discussed based on a case study to identify what, when & how to optimize the reinsurance arrangements.

Reinsurer is insurer's insurer. Reinsurance arrangements are made for better returns on capital, reduce volatility of returns, reduce risk of insolvency and to increase profitability by line. Reinsurance is a cost to transfer the part of uncertainty of losses!!

Reasons for Reinsurance are:

- Financing: supports new business strain
- Stabilisation: reduces fluctuations in underwriting profitability

- Capacity building: provide high limit for a single risk
- Catastrophe Protection
- Services like underwriting, claims audit.
- Regulatory requirement

Two types of reinsurance are available: proportional and non-proportional. The treaty between reinsurer and direct insurance company can be compulsory or facultative. Retention limits are decided by the company depending on its risk appetite. The regulatory requirement can be different from what the company aims.

What to optimize?

The company has to strike a balance among various factors like capital requirement, tail risk of insolvency, year to year volatility in under-writing profits/ transfer in risk vis-a-vis reinsurance premium payable. Hence the company has to optimize the **return on equity**.

When to optimize?

Anytime! And all the time! As this is a continuous process of monitoring. Thus irrespective of the age of the company, duration since last reinsurance arrangements made etc. the reinsurance optimization can be looked into.

How to optimize?

- Review Current Reinsurance Treaty (Structure & wording). Check if there is scope for any changes. Find out whether the treaty is worth optimizing.
- Understanding the risk / Assessing benefits of reinsurance—Search for reason reinsurance arrangements were made for the company. Is the reason still valid? How effective is the current reinsurance? Identify/test different reinsurance structures
- Finding the best solution / Making the decision—List out pros and cons of alternative reinsurance structures and select an optimal structure based on different risk-reward criteria.

Selection of reinsurance arrangements:

The decision of selection of reinsurance arrangement depends on the company's risk strategy. Model needs to be built for the products sold by the company with expected deaths, lapses, reinsurance premium rates. Projections can then be made using stochastic modelling for different reinsurance arrangements (like different retention limits or different type of reinsurance: quota or sum at risk) and its impact on profitability & capital requirement can be seen. The arrangement that satisfies the risk strategy is then selected as the most beneficial reinsurance arrangement.

Conclusion:

Companies with Superior ERM are able to articulate their risk preferences, and ensure they align with stakeholder expectations. A clear understanding on risk within a company is key to benefit from any potential risk transfer strategies. Every insurance company should look into its reinsurance arrangements to optimize the return on capital.

Feedback of 1st Capacity Building Seminar

1st part was too technical & 2nd part was right balance

Seminar should be more focussed towards workshop types which might prove helpful as far as new topics are concerned

Topic suggestion: Cost of Guarantees for Participating line of Business

Topic suggestion: Strategic Asset allocation derivation methodology

Topic suggestion: Asset Liability Interactive Modelling

Reinsurance presentations contained practical examples thus illustrated the concepts being discussed. The presentation in Economic scenerio Generators would have been much better if they had contained practical example. I was lost during almost all the Economic Scenerio Generators Presentation as no attempt was made to explain any of the concept.

REPORTAGE

3RD IAI CONNECT

- **Organized by** : Advisory Group on Social, Cultural and Youth Affairs, IAI
- **Venue** : Hotel Avion, Mumbai
- **Date** : 20th August 2014

The 3rd IAI Connect started with the Welcome Speech by **Sabyasachi Sarkar**, Chairperson – Advisory Group of Social Cultural and

Sabyasachi Sarkar

Youth Affairs. Mr. Sarkar said that the 3rd IAI Connect was arranged in response to the long-standing expectations of the student community for such an event.

The other speakers were:

Subhendu Bal - Appointed Actuary, SBI Life; **Suresh Sindhi** - AVP Actuarial, Star Union Diaichi Life; **Peuli Das** - Head Reporting - Actuarial, Reliance Life; **Vikash Kumar Sharma**, AAO Actuarial, LIC of India

Subhendu Bal spoke about the insurance industry, the role of actuaries, the exam system and the CT3 exam.

Mr. Bal spoke briefly about how the insurance industry has evolved in our

Subhendu Bal

country starting from the time of Oriental Insurance in 1818. We went back in time to 1912 when the statute made it mandatory for the insurance premiums and insurance company valuations to be certified by an actuary. From there to the Insurance Act of 1938, the LIC Act of 1956 and the nationalisation of the Life Insurance business, the GIC Act of 1972 and the nationalisation of the General Insurance business, the Malhotra Committee and its recommendations, IRDA Act and the opening up of the insurance industry, and right up to the proposal of increasing the FDI limit to 49%, Mr. Bal took us on a journey through history.

This followed with a tour of the fascinating history of the Actuarial profession from the establishment of the Institute of Actuaries in the UK to the Actuaries Act (2006) and reconstitution of the Actuarial Society of India as the Institute of Actuaries of India.

This was followed by presentation and video clips on "What do you mean by an Actuary?", "What do actuaries do?" and "The role of an Actuary".

Next, he elaborated on the fairness of the exam system. He pointed out that in order to ensure the fairness of the questions that are set, the Institute utilises the services of examiners, review examiners and external examiners, who ensure that the quality and standards of the questions meet the requirements. The applicability of marks allotted to the questions as also the time required to solve them are thoroughly checked. It is ensured that the questions are within the scope of the syllabus; however, the examinees are tested not only on their knowledge of the theory that is covered in the course material but also on the applications of the theory and higher skills derived from the study.

Distribution of marks is done as per the level of difficulty of the question and the length of the expected answer. So, this should be a clue to the examinees regarding how much to write.

About the Author

chakrabarti.arnab@gmail.com

Arnab Chakrabarti is working with Life Insurance Corporation of India and has work experience in the Life Insurance industry of more than 10 years. He holds BE (Civil) and MBA qualifications.

The speaker mentioned the following techniques for success in clearing the exams:

- Have clear goals
- Do proper planning
- Study with full dedication
- Explore the depths of what you study
- Enjoy the subject and experience the thrill of studying
- Believe in yourself

There after Mr. Bal discussed some questions from the October 2009 and May 2010 exam papers of subject CT3.

Suresh Sindhi & Participants in the session

During the next session, presented by **Suresh Sindhi**, there was deliberation on opportunities for actuaries in various traditional areas like life and non-life insurance, pensions, etc. and non-traditional areas like Project Management.

In the context of the available actuarial talent, the speaker gave a presentation on the distribution of actuarial talent in the country across various states.

Regarding exam preparation, the speaker suggested following points for success:

- Plan in advance and stick to it
- Study the tuition materials
- Make your own notes
- Practice lots of questions

- Focus on problems where you struggle
- Gain detailed subject knowledge

Mr. Sindhi suggested the following as good exam techniques:

- Plan your answer
- Pace yourself and move on if you get stuck
- Do not panic
- Attempt every question
- Read the whole question carefully
- Write legibly

Mr. Sindhi stressed on the following observations by examiners:

- Read the words used in the question carefully and accordingly write answers - e.g. "list" and "describe" mean different things and require different answering.
- Write the actuarial notations carefully
- Do not jump into the answers - show all intermediate steps
- State all assumptions explicitly
- Do not write too much and use shorter methods wherever possible
- Structure the answers logically as this demonstrates clear thinking and understanding

Mr. Sindhi also discussed some sample CT5 questions.

The next speaker, **Peuli Das** said that actuarial exams are particularly challenging as these involve Large workload and limited time; No ready guidance, coaching or classroom; Different backgrounds; Competitive setup & Limited time during exam to think and write

Hence, it is very essential for the student to know the subject thoroughly and active thinking is required.

Ms. Das suggested the following techniques for success:

Peuli Das

- Active study
- Make your own notes
- Maintain regularity
- Browse through as many sample questions as possible
- Focus on a wider scope
- Study supplementary course material
- Practice writing under mock exam situations

The speaker observed that the examiners expect that you

- Know the book work well
- Understand the concept well to be able to apply it reasonably and logically
- Make reasonable assumptions and attempt all questions
- Demonstrate understanding of other (earlier) subjects
- Have a legible handwriting

Ms. Das also stressed on correct interpretation of the "language" of the question & Time management. She also discussed some CT8 exam questions from the May 2013 and May 2014 exam diets.

The last speaker, **Vikash Sharma** focused on exam clearing tactics and avoiding mistakes and pitfalls.

Mr. Sharma felt that most failures occur due to following reasons:

Vikash Sharma

- Lack of focus and determination
- Inadequate preparation
- Poor time management
- Inability to judge the level required to get a clear pass

According to the speaker, following is the ideal approach to tackle exams:

- Start your preparation well in advance
- Stay focused and disciplined
- Study everyday
- Keep a benchmark
- Always better to aim at "Chapter X today" rather than "X hours today"
- Study when it best suits you; study regularly
- Practice Question Banks and Assignments

Mr. Sharma advised that the following common mistakes should be avoided:

- Poor time management
- All steps not documented

At the end, there was a session on Question & Answers. The audience, consisting of actuarial students, was very enthusiastic and there were a number of useful interactions between the speakers and members of the audience during the Q&A session and also during informal networking over lunch and tea.

Feedback of 3rd IAI Connect

The 2 younger speakers were much more relevant & helpful.

The event was well orgainsed cleared several doubts regarding CT Subjects.

Practical oriented needed. It was more exam oriented for a beginner in Profession.

More speakers from non - insurance companies would be desirable.

Talk on all types of CT, CA, ST & SA brief knowledge

Good contents & fresh actuary choosen for speakers

Overlapping content , not concise enough

Subject Toppers should be invited for better connect with student community . Snippets from Exam answer book of students can be shown as a case study.

I was basically impressed with how the seminar was conducted. Being my first seminar I like the clarity with which the speakers addressed. The most pressing issues for actuarial student member in their earyl stage of their studies.

I am new to Actuary science & this seminar was on subject like CT3, CT5, & CT8 so I didn't understand any of it. The request is next time freshers should be considered while designing content but even this was useful as came to know mistakes made by ex-students.

My only suggestion is that topics for discussion are more varied. Also, I noticed most of speakers & talk in regards to actuarial industry, was about life insurance. We would prefer a more open discussion & speakers from various domains where actuarial applications are put to use. Though Compehensive, sessions were overlapping in content.

Well Explained by Speakers. Satisfactory with the delivery of the lecture.

More Growing areas of Actuarial like ERM, Risk Management should be thrown more light.

Career Opportunities

Seminar should be conducted more often. If possible, at various locations including Pune & half day workshops for special topics & subjects should be conducted.

There could have been some content around the potential for actuarial profession in India. I underrstand that there was some mention on it but having something in terms of numbers would have been more ideal. I feel if we are promoting this profession, having some concrete statistics would help more in attracting students towards it.

More content & guidance should be covered on how to get first actuarial job

Rather than specific subject related content (which may not be of interest to those who have cleared it. Keep session generic. Have representation from actuaries from other fields(other then employment in life / general insurance) for e.g. consultant actuaries, pension or investment actuaries.

The venue suited the event perfectly(proximity to airport) They could have been more detailed i.e. more time could have been devoted. Some detailed explanation about actuarial jobs could have been given.

Please include more sessions dealing with SA, ST & CA session.

Good Effort! Lot of repition. Please outline a proper topic to each speaker & a single Q& A Session requested

Request that students should be able to get the photocopy of their answer - sheet -not to know the cut off marks but to understand where they are wrong & what are their mis concepts. Speakers are very good. But it would be helpful if they elaborate scope of actuary like e.g. consultancy, risk management then what this profession exactly is & how actuary is likely to this profession or the difference between life insurance &general insurance.

Most of the suggestion mentioned by speakers already there in study material. Few speakers really focused on general mistakes made by students during examinations.

There should be more discussion on job opportunities & there must be a recuiter who can help us in applying for various jobs

Seminar was extremely good just 2 suggestions - repeatation of few points due to the agenda & more emphasis on papers beyond CT series, would be welcome.

Topics like how to smartly study & which areas of any particular CT Subjects is important for exams as well as work point of view, can be discussed elaborately

More emphasis should be given about opportunites & how to excel in actuarial job life. Which software should I get hang on.

Very helpful away from the main event. Connecting multiple papers togather as a possible road map as is shown in study material - for e.g CT1, + CT3......

Content was good. Very well explained & it is really helpful & thank you Institute of Actuaries of India for such a wonderful interaction

Include more non-life actuaries as speakers hold an informational session for ACET pass candidates.

Future Sessions must be 2 -day events

A topic may be included for the entry level candidates with no papers cleared to help them understand the profession better

The 2 younger speakers were much more relevant & helpful.

LEADERSHIP DEVELOPMENT PROGRAMME

- **Organized by** : Institute of Actuaries of India (IAI)
- **Venue** : Hotel Avion, Mumbai
- **Date** : 22nd and 23rd August 2014
- **Faculty** : Mr. Satish Kakri

Actuaries are known to demonstrate strong intellectual, mathematical and problem-solving skills. However, the issue of not being a strong leader and good communicator is often heard. This seminar was an effort from IAI to address this pressing issue and inculcate better communication and leadership skills in young actuarial professionals.

It was a two days seminar focusing on less emphasized aspects of leadership in actuarial professionals such as communication, interpersonal skills, public speaking, and empathy. The faculty Mr. Satish Kakri, a renowned name in soft skills training, had divided the whole program in two parts, first day to cover the essentials of good communication skills and second day to build up on earlier learnt techniques to become a strong leader.

There were 17 participants gathered for the betterment of their soft skills with a hope to ease their day to day work and to get an edge in climbing corporate ladder.

The day started with the very

Satish Kakri & Participants during the session

essentials yet often ignored aspects of communication skills with exercises on Clarity and Pronunciation, Breath control, and speaking longer sentences. Participants were encouraged to address the gathering with something they are most comfortable with, their own selves. The session helped them to come out of their shell and interesting discussion started about various places in India and world. People came to know about background of other participants, representing many parts of our country. It was an opportunity to meet people like Parsuram whose journey towards fellowship thrilled and motivated many of us.

Later on many exercises were carried out for agility of the organs of speech. Practicing of tongue twister paragraphs, the dialogues from Shakespeare's plays and other breathing and voice modulation exercises were well appreciated by participants.

Afternoon session started with a discussion about pitch and volume. Surprisingly many of us did not know about the thin line between pitch and volume and used them interchangeably. However the discussion and practices helped to understand the difference and effectiveness of raising pitch to convey a message without raising one's volume.

The last activity for the day was a debate on Social Media – Boon or Bane. Participants were very enthusiastic to express their view.

The day concluded with setting up tone for next day, discussing the difference between a manager and a leader which can be rightly summarized by the quote of Management Guru Peter Drucker, **"Management is doing things right; leadership is doing the right thing."**.

Key learning for the first day was:

- Slow and clear speaking is a much better approach than to keep on repeating yourselves for other's understanding

About the Author

anand_saur@yahoo.com

Saurabh Anand is working as a Manager-Actuary at Reliance General Insurance.

- In a conversation words only count for 50% and a lot is expressed through Body Language. It is important to maintain a calm and poised attitude. Maintaining right degree of openness and giving personal space to others should not be avoided.
- Voice modulation by keeping a control on pace of speech, pauses, pitch, emphasis on key word and Tone enables the listeners to keep interested and understand the intended meaning
- Using all the organs and deep breathing while speaking gives the energy to complete sentences with proper pauses and emphasis.
- Listen to yourself while speaking.
- Consonants are very important and should not be omitted or slurred.

Few other essential tips to make communication more effective were:

- Avoiding unnecessary details. This might end up the other party disinterested.
- Importance of two way communication. The communication cannot be said successful till the time other party understands what was intended and hence their involvement is very important.
- Avoidance of strong political/ religious view. It often ends up being personal arguments as people are very sensitive to these.
- Importance of smile; this helps put the other person at ease.
- Communication is a 50:50 process and without involvement of other person it will be more like lecture. Observing the listeners gesture

and giving them chance to speak will make the conversation more effective and fruitful.

- At times there could be difficulty in reaching a consensus; having an attitude to agree to disagree and respecting others belief could be a nice idea.
- Criticizing directly may offend the other person. Instead asking questions, which sow seeds of doubt in the mind of other person, is a better approach of criticizing.
- While preparing a slide for presentation the rule of 6X6 should be followed which says 6 bullet points in a slide having 6 words in a bullet point.

After the first day's fun filled learning sessions, all the participants were eagerly waiting for the next day to start. The day started with effective public speaking tips followed by a video of Adolf Hitler giving a speech to his folks; all could see the energy, the conviction with which he spoke and the body language which moved his audience to their edge. The speech was in German but the enthusiasm and effectiveness was felt by everyone. Learning went on reemphasizing and practicing the correct body language, tone, pitch and pause to make the audience glued with you. This followed by other videos of great leader Martin Luthar King **"I have a dream"** and recent time leader Barak Obama's inaugural presidential speech. The tips given in the morning was well observed in these speeches. Many of the participants practiced them also and demonstrated a good learning.

Next exercise was to write your own speech playing the role of the Prime Minister of India. It was cheerful to see the change in confidence of people just after a day of exercises. Many put a great show with nice content and delivered with a great delivery style.

Many key leadership qualities were discussed with examples. Honesty,

Satish Kakri & Participants in the session

commitment, ability to delegate, communication (speaking as well as listening skills), sense of humor, control on anger, creativity, positive attitude, following intuition, confidence, ability to inspire, negotiation skills and being impartial were learnt as essential traits of a strong leader.

Role play activities were carried out to understand these qualities in a better way and how it can be inculcated in day to day life of an Actuary. These activities were recorded and then played back to discuss and understand what could be improved. Important take away from second day were:

- Traits of a strong leader
- Importance of emotional intelligence and ways to develop them for leadership skills. Writing a daily diary, keeping calm, understanding your values, being accountable, keep reminding yourself about your goal and aspiration, praising others are some of the ways to inculcate emotional intelligence for enhancing leadership skills
- Relationship building by keeping up with people, building trust, networking, showing a genuine interest in others, working hard, focusing on giving, and emphasizing on quality than quantity

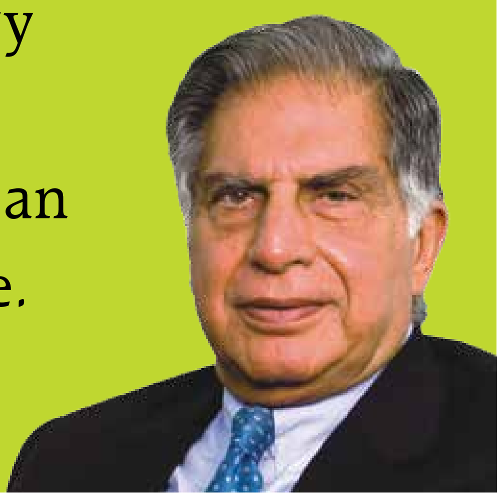
Seminar was concluded with a personal feedback to each of the participants from the faculty addressing their individual concerns and providing prescription on how to tackle them. Participants were really happy with the two days spent in seminar. For Smriti it lived up to each bit of her expectations, Akshada, Kushagra, Harshada, Bhalchandra, Swati and other participants nodded in one voice that it removed their stage fear. Opening your mouth and using all the speech organs while communicating is something all knew but the importance is understood now. Everyone was thankful to IAI for conducting such sessions.

The Essence of the seminar can be summarized by the statement of James Humes:

"The art of communication is the language of leadership."

Ups and downs in life are very important to keep us going, because a straight line even in an E.C.G. means we are not alive.

- Ratan Tata



Feedback of Leadership Development Programme

It was a good experience

It made me open up, talk in groups

It has given a different view to work on one of my negative (aspects): not a good communicator

Improved awareness on Self, Communication and Speech Fluency.

Good learning experience and a chance to develop.

The workshop has created a good comfort level among all the participants. It has helped in enhancing my confidence.

The training on speech was useful.

It was simply too good. I never thought that I could be that open.

Improved confidence in Public/Mass speaking.

This programme helped me how to talk or react all situations.

It was helpful. Made me think about importance of communication

It was a wonderful experience.

Very good and participative sessions.

Excellent effort to improve the communication of Actuaries, who are technically strong but lack communication skills.

The programme has helped me understand my limitation and way forward to improve on them.

One of the rare workshops where I was present physically and mentally too.

Good experience reminded me of school/ college days. Scope for learning

This training programme is excellent in terms of learning experience. I got to know about the way we can prepare for (a) Speech/Presentation. It has helped to overcome stage fright to some extent, since it involves to speak on podium and in group discussions, debates etc. This programme has helped by showing videos of acts so that we observe our weaknesses and will help to work on these areas. Overall good interactive 2 day training sessions.

Well to tell you all about the experience here for 2 days, I can say now I breathe full and use my speech organs. Also, listen to myself. I will certainly try to implement modulation thought variance of pace, pitch, tone, emphasis of key words etc. I would like to make a note of a point that I have stage fear but this seminar has helped me to over come it a bit. I understand that we will need revise this, it doesn't end here. leadership qualities we have listed down, which will help us to apply in future.

Training was very well designed and executed. Our trainer and conductor is a highly experienced and skilled professional. He made us recognize and acknowledge the gaps in our current communication skills. He made us aware of the antomy of speech and elements of public speaking. This helped a lot in better understanding communication. Certain exercises were built specifically for speech patterns and constructions of words. Also, exercises were conducted that boasted the individual's confidence and measurable changes were observed only after two days. Highly recommended!

Training give us a platform to develop our communication skills and knowledge about leadership skills. Good set of people and nice line up of activities. The trainer was very knowledgeable and friendly and he tried to bring the best out of us. The material was good but can be made better in terms of more individual exercises and a few more activities about leadership skills would prove more beneficial. All in all, a lot of good take aways from the training.

The training was an enjoyable experience. It helped in confidence building. The emphasis on details of speech was good. The different exercises & activities conducted helped in familiaring with the group. Takeways: Act, never react. Express your disapproval by speaking at a high pitch, with a low volume. Taking Pauses at appropriate places, to maintain the pace. A leader has to speak in a convincing way. For this, the speech has to have a well-prepared content and properly modulated.

My experience in the training workshop was amazing. It gave me a platform to meet my fellow actuaries, which would have been impossible without it. This workshop helped me get more confidence in speaking in front of a group of people. It helped me to communicate freely with almost unknown people. It helped me to learn (the) difference between pitch & volume.

This training was very good and made me understand how to speak and what to speak in particular situations. Also, this training make me to come over from my shyness. It provided me confidence and come over from Stage Fear. Still, I need to know more about leadership quality, something about personality development.

This training was very unique and this is the first time that I have attended a training like this. It was very useful and I am convinced that if i practise the techniques taught is the training I can be an effective leader.

I have enjoyed my 2 days at the seminar very much. It was fulfilled 2 days, learning. At office it is mostly number crunching and one to one conversations with collegues with limited social interactions. I am actually a introvert and in general talk very less. So I supposed.

This a new begining for me to make, few changes in me - like getting over by inhibitions such as stage fright. I fell more confident that next time when i speak at public gatherings I will do better and now I know exactly where I lag and ways to improve upon them. Thank you Sir for this great session and thank you all for the great time.

I had a wonderful experience at the training. The best part of the training was it kept us engaged completely for 2 days. It is very tough to be present physically & mentally. But here I was present physically & mentally both. I learnt here how important communication is. I will use my speech organs more effectively now. I will try to control my pace and will not be shy to speak on stage. The material is also quite good. i appreciate the way training is conducted.

Good experience to improve speech. The practical approach taken has helped to open up from shell. The exercises for the sound (speech) organs were wonderful. On Day One, first public talk I was feeling nervous but later on with more practical exercises I got calm and able to speak normally. The emphasis on deep breath, pause and pace was key to improve communication. On managing fear front, keeping voice low and pitch was key takeaways.

I came with a lot of enthusiasm about learning more about communication and effective leadership skills. The workshop has lived up to every bit of the expectation. For me, the key learning areas have been - having control on pace, articulation and introduction to the concept of being a successful leader. The activities have been engaging and fun; the basic elements have been taken care of which is amazing.

The learning element has been immense in every session. I stepped out of my comfort zone. The communication is very essential which makes getting the right skills extremely important. Thank you so much for an enriching experience. It would be icing on the cake if I go back with an invidiual feedback. Hope to communicate better and smarter.

I came a little late and that fact made me little uncomfortable. The acknowledgement of faculty - it's ok, take a seat, instantly shun away that discomfort. The ice breaking session was really good and involved everyone. The opening up of mouth and voice modulation exercise were helpful but the long breathing "tip" is going to be applied on daily basis. The reply of role play exercises made me realize that the time taken to find words are not too much and now the uneasiness brought because of this will be removed.

We have improved in our communication. We are using our speak organs.

EQUITY RELEASE: SHOPPING FOR HAPPINESS AT OLD AGE - PART I

This article is about the general and economic environment for the Equity Release products available in the UK. This article is divided in two parts. **Second Part of this article will be published in October Issue of Actuary India**

In the first part we have covered the following:

1. Nature of the product
2. Example of two situations leading customers to buy Equity Release
3. Jargon buster
4. Different types of Equity Release products available
5. Regulations – Equity Release council – its objectives and prescribed guarantees to be provided to the customers
6. Regulations – Financial conduct authority – (i) Customer outcomes, (ii) Information for the customer and (iii) FCA source book overview - Mortgages and home finance: Conduct of business source book

Equity Release is an interesting insurance product which is sold in the UK by some life insurers and specialist pension firms. This product is intended for the elderly population facing pension shortfall, unexpected expenses or who want to holiday without substantially reducing their expenses. Equity Release allows customers to tap into the wealth accumulated in his or her house without moving out. Given increasing life expectancy and closure of many defined benefit schemes, Equity Release is a product which can rescue elderly people in case their defined contribution pension proceeds fall short of their needs. Equity Release means unlocking of some or all of the equity tied up in the house property, without the owner having to move house or being able to demonstrate that the finance generated can be repaid out of income. It is a way one can benefit from the value of his or her home without having to move out – by borrowing against it or selling all or part of it for a regular income or a lump sum.

Mrs Smith is 70 and lives alone in a 3-bedroom bungalow in Southampton. Enjoying her retirement, she'd love to be able to see more of her three children and four grandchildren who all live in the north of the country. She would also like to make some improvements to her home to make it easier for her to maintain it on her own. Ideally, she would love to be able to afford modified kitchen, a downstairs toilet and a new television.

Mrs Smith cleared her mortgage several years ago, so she decides to revive her home, by unlocking a part of its value through Equity Release. This will give her the money she needs to regularly visit her family as well as improving her home.

Keen to be able to leave an inheritance to her family, she decides to opt for Equity Release product. Given the valuation of her house, she can release a maximum of £75,000 but she's worked out she only needs £50,000, 2/3rd of the potential release amount. By taking this smaller amount, she can now protect 1/3rd of her property's value as a guaranteed inheritance for her family. This means that the amount to be repaid at the end of the loan will never exceed 2/3rd of her home's value.

About the Authors

saket.vasisth@gmail.com

Saket Vasisth is involved in actuarial reporting for life insurance. He is student member of IAI and is working at WNS.

skchapman1@hotmail.com

Sarah Chapman is part of the Asset Production and Equity Release reporting team. She is a student member of the institute and faculty of actuaries and works for Aviva.

Mr and Mrs Fisher, aged 65 and 61 respectively, live in a 2-bedroom detached property in York. Their property is worth £300,000, with a small outstanding mortgage.

The couple have found themselves preoccupied with the financial strain on their pensions. They are looking for a way to clear their mortgage and free up more of their monthly income. Mr and Mrs Fisher would also like to find some additional funds to help their family, as they have a son who is struggling to acquire one property due to the lack of deposit funds. They decide to look into Equity Release. Mr and Mrs Fisher have been smokers for 10 years. The couple can actually release money from their home, since their health and lifestyle are taken into account in loan determination by the provider. The couple find out that they could release a maximum of

£180,000. This is more than enough to settle their current mortgage and contribute to their son's deposit for his new home.

Jargon buster:

Housing price index: It represents the relative change in the value of houses in a particular geography which make up the index. In the UK, Halifax and Nationwide are two main housing price indexes available. Other available housing price index are CLG/ONS, Land registry, Rightmove and Hometrack.

Negative Equity: When the amount borrower owes to the lender is more than the value of home of the borrower.

No Negative Equity Guarantee (NNEG): A 'No Negative Equity Guarantee' means that the amount repaid (including accrued interest, charges and all sale costs) will never be greater than the sale proceeds – no matter what happens to interest rates or house prices. So there's no risk of passing on any debt to the family/heirs of the borrower. Should borrower's home be sold for less than the outstanding mortgage balance after sale costs, NNEG will take care of this difference. This 'No Negative Equity Guarantee' is a very important safeguard for the borrower and his or her family and any future beneficiaries of his or her estate. It means that there is no risk of them being left with an outstanding mortgage debt after home is sold after sale costs are taken into account. This is known as non-recourse provision (NRP) in the US.

Early redemption charge (ERC):

Borrower has an option to repay. Borrower can re pay the loan and interest early (i.e. before death or moving into long term care) but there could be an early repayment charge, as set out in provider's Key Facts Illustration and the offer of loan. A lifetime mortgage is designed to last for a borrower's lifetime, hence the name early redemption charge. Normally, loan is provided at an interest rate which is fixed for the borrower's lifetime. Lenders do not expect to receive that money back for a period of time, which is calculated using mortality rates. If the borrower decides to repay the loan early, the money has to be re-invested. If at the time of repayment interest rates are lower than at the time of the original loan, the return on investment can be significantly lower than expected. To recoup this anticipated loss, an ERC may be payable by the borrower. Normally, if the borrower wishes to repay the loan earlier than planned, the amount of an early repayment charge will depend on the difference between the borrower's benchmark rate and the Index Rate (normally FTSE UK gilt 15 year yield index). If the Index is lower than the benchmark rate then an early repayment charge will be payable. Normally, if the index is higher than the benchmark rate then no such charge is payable by the borrower.

Loan to value (LTV): At the time of contract inception, LTV is the ratio of loan provided to value of property. At later stages, accumulated interest is also added to the numerator of this ratio. And denominator will be the value of property at that later time.

Type of products: There are broadly two types of Equity Release plan available:

- Mortgage
- Property sales

Mortgage:

1. **Lifetime mortgage:** A loan secured on the borrower's home (a mortgage loan) is made. Compounded interest is added to the capital throughout the term of the loan, which is then repaid by selling the property when the borrower (or borrowing couple) dies or moves out (perhaps into a care home). The borrower retains legal title to the home whilst living in it, and also retains the responsibilities and costs of ownership. In the UK, more than 85% of Equity Release market is dominated by this product. For most lump-sum deals, interest rates are fixed at the outset. This product is comparatively expensive than other options because larger initial amount is given to the policyholder.
2. **Interest only loan:** A mortgage is made, on which the capital is repaid on death. Interest payments are paid whilst the borrowers remain in the property. Stonehaven and More2Life offer this option.
3. **Shared appreciation mortgage:** The lender loans the borrower a capital sum in return for a share of the future increases or in the growth of the property value. The borrowers retain the right to live in the property until death. The older the client the smaller the share required by the lender. For example, on a property valued at £100,000 an immediate interest free mortgage of £25,000 could be granted. If the property value rises to £180,000 before the client's death, then the total repayment to the lender would be £25,000 capital plus 3/4 of the £80,000 gain in value = £25,000 + £60,000 = £85,000 of the total £180,000 proceeds.
4. **Enhanced lifetime mortgages:** Some providers offer more money to those with lower-than-average life expectancies. Aviva, More2Life and Partnership offer these mortgages.

Property sales:

1. **Home income plan:** A lifetime mortgage where the capital is used to provide an income by purchasing an annuity often provided by the lender, which is often an insurance company.
2. **Home reversion:** Policyholder sells a share in his or her house at lower than their market value and retains the right to stay in their home for rest of his or her life. When the policyholder dies or moves into long-term care and the property is sold, the provider gets the same share of whatever the policyholder's home sells for as repayment. For example, if the contract is for 50% of the property to the provider, they would get 50% of the sale price.

One can take out lifetime mortgages from the age of 55 (provided the house value is at least £70,000), but home reversions are available only to people aged 65 or older. As per Equity

Release council's report more than 85% of the Equity Release market share is dominated by lifetime mortgages and 13% is with home reversion plans.

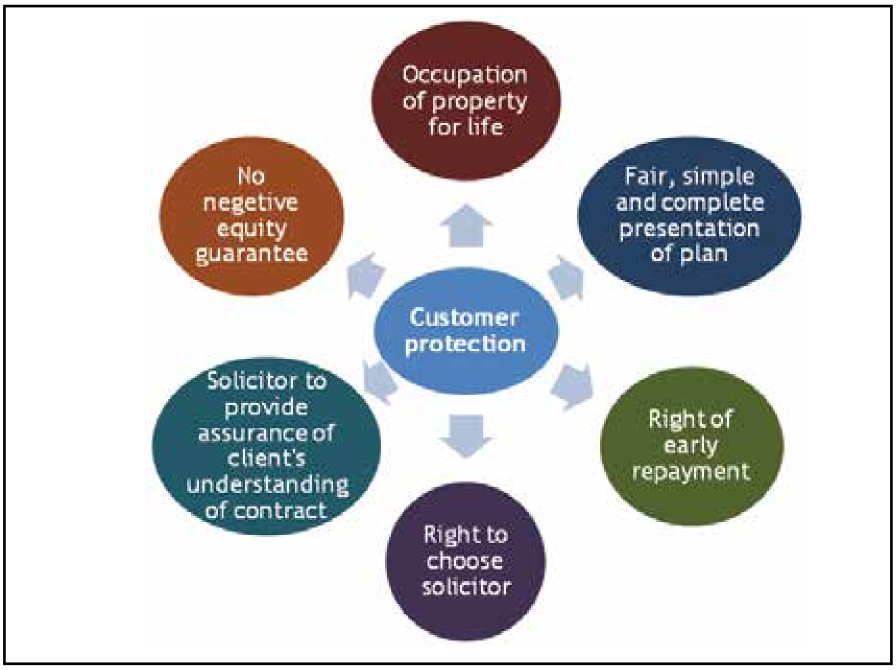
Regulations: Equity Release product regulations are predominantly prescribed by:

- Equity Release Council (ERC)
- Financial Conduct authority (FCA)

Equity Release council, ERC (formerly known as safe home income plan - SHIP), a trade body set up in December 1991 to help protect customers of Equity Release. Founding members of ERC were Allchurches Life, Hodge Equity Release (as Carlyle Life), Home & Capital Trust and GE Life (as Stalwart Assurance). Equity Release Council represents the providers, qualified financial advisors, lawyers, intermediaries and surveyors who work in the Equity Release sector. A major focus of the Equity Release Council's work is to ensure that products are safe and accessible for consumers. Each member of the ERC that provides Equity Release products has to sign the ERC's code of conduct. This code provides a number of safeguards and guarantees for consumers. This means that people who use Equity Release products offered by Equity Release Council members can have confidence in the products they use and the information they receive.

Guarantees to be provided to the customer: The following guarantees have to be provided to customers:

1. To allow customers to remain in their property for life provided the property remains their main residence.
2. To provide customers with fair, simple and complete presentations of their plans. This means that the benefits and limitations of the product together with any obligations on the part of the customer are clearly set out in their literature.



3. The right to move their plan to another suitable property without any financial penalty.
4. The right for the customer to choose an independent solicitor of their own choice to conduct their legal work.
5. The ERC certificate signed by the solicitor is there to ensure clients are aware of the terms and implications of the plan including the impact of Equity Release on their estate.
6. No negative equity guarantee: All ERC plans carry a no negative equity guarantee. This means customers will never owe more than the value of their home and no debt will ever be left to his or her next of kin, immediate family or any other person having an interest in the property. This guarantee (as enforced by the ERC) has caused Equity Release providers to use actuarial expertise to compute no negative equity guarantee. After 2008-2009 economic slowdown, because of home mortgages, it makes even more sense for the regulator to make it compulsory for Equity Release providers to give no negative equity guarantee to the customer.

Financial Conduct authority (FCA): The Financial Services Authority (FSA) is now divided in two bodies (i) Financial Conduct Authority (FCA) and (ii) Prudential Regulatory Authority (PRA). Firms advising or selling Equity Release schemes are regulated by the Financial Conduct Authority (FCA). Regulated firms and their agents are placed on the FCA Register and have to comply with certain regulatory standards. The regulator has outlined six core customer outcomes which every Equity Release provider must aim to achieve. These are:

Outcome 1 - Customers can be confident that they are dealing with firms where the fair treatment of customers is central to the corporate culture.

Outcome 2 - Products and services marketed and sold in the retail market are designed to meet the needs of identified customer groups and are targeted accordingly.

Outcome 3 - Customers are provided with clear information and kept appropriately informed before, during and after the point of sale.

Outcome 4 - Where customers receive advice, the advice is suitable and takes account of their circumstances.

Outcome 5 - Customers are provided with products that perform as firms have led them to expect, and the associated service is of an acceptable standard and as they have been led to expect.

Outcome 6 - Customers do not face unreasonable post-sale barriers imposed by firms to change product, switch provider, submit a claim or make a complaint.

Equity Release firms - What the FCA expects them to do? Firms selling Equity Release schemes must make sure that advertisements, product brochures and other promotions are (i) clear, (ii) fair and (iii) not misleading. This includes:

1. The advantages and disadvantages of particular features of the Equity Release schemes have to be equally stated
2. With lifetime mortgages, the firm must provide the annual percentage rate (APR) whenever it provides any price information
3. The adviser must check whether using the scheme will affect customer's tax position and any entitlement to benefits
4. If there's a fee for advising on or arranging lifetime mortgage, the actual or typical fee must be quoted
5. Firms are supposed to provide two documents marked with the 'KeyFacts' logo that set out important information. The information should be in prescribed standard format so that it can be used to compare products and services from different firms.

Document 1: The 'KeyFacts' about Equity Release services:

i. Information about the service the firm can offer

ii. Whether it offers lifetime mortgages, home reversion plans, or both

iii. Whether it offers advice or just information, and

iv. How much customer will have to pay for the service

Document 2: The 'KeyFacts' about this lifetime mortgage or home reversion plan' document will be tailored for specific to the prospective policyholder's requirements:

i. How much customer want to release

ii. The overall cost, including any upfront fees and charges

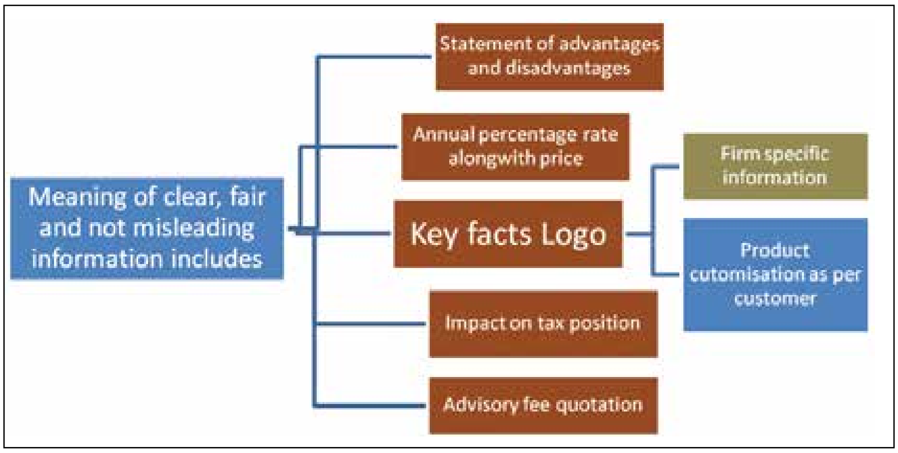
iii. What customer will pay each month, if there are monthly repayments, and

iv. What happens if customer wants to make early repayment of loan

Financial Conduct Authority (FCA) handbook has following 10 blocks:

1. Glossary – which contains terms used in the handbook
2. High Level Standards - standards applying to all firms and approved persons
3. Prudential Standards - sets out the prudential requirements for firms
4. **Business Standards** - detailed requirements relating to firms' day-to-day business
5. Regulatory Processes - manuals describing the functioning of the FCA's and PRA's
6. Redress - the processes for handling complaints and compensation
7. Specialist sourcebooks - requirements applying to individual business sectors
8. Listing, Prospectus and Disclosure - United Kingdom Listing Authority rules
9. Handbook Guides - Aimed at giving a basic overview of certain topics and point firms in the direction of material in the Handbook applicable to them.
10. Regulatory Guides - These are guides to regulatory topics

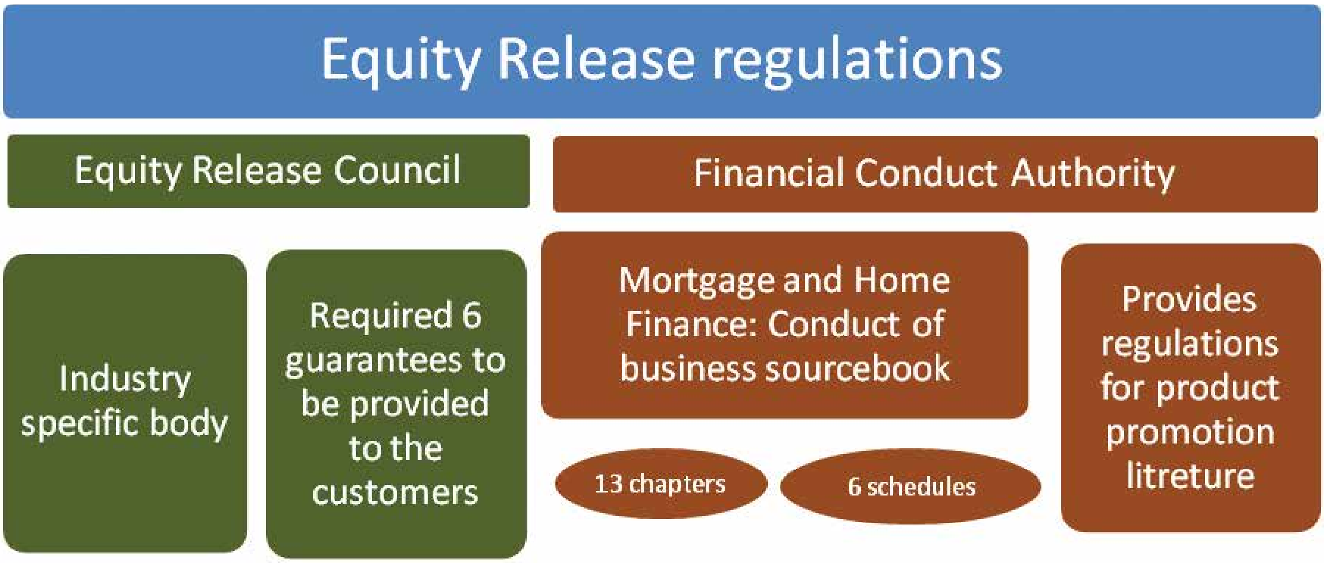
Fourth block is Business Standards (for the detailed requirements relating to firms' day-to-day business conduct) in which regulations for mortgages and home finance are provided. Business sourcebook for mortgages and home finance (MCOB) came into force on 31 October 2004. It contains 13 chapters



and 6 schedules as follows:

MCOB 1: Application and purpose	MCOB 7: Disclosure at start of contract and after sale
MCOB 2: Conduct of business standards: general	MCOB 8: Equity Release: advising and selling standard
MCOB 3: Financial Promotion of qualifying credit, home reversion plans and regulated sale and rent back agreements	MCOB 9: Equity Release: product disclosure
MCOB 4: Advising and selling standards	MCOB 10: Annual Percentage Rate
MCOB 5: Pre-application disclosure	MCOB 11: Responsible lending, and responsible financing of home purchase plans
MCOB 6: Disclosure at the offer stage	MCOB 12: Charges
	MCOB 13: Arrears and repossessions: regulated mortgage contracts and home purchase plans
Schedule 1: Record keeping requirements	Schedule 4: Powers exercised
Schedule 2: Notification Requirements	Schedule 5: Rights of action for damages
Schedule 3: Fees and other required payments	Schedule 6: Rules that can be waived

MCOB can be found here: http://fshandbook.info/FS/html/handbook/MCOB



MANY HAPPY RETURNS OF THE DAY

the Actuary India
wishes many more years of
healthy life to the fellow members
whose Birthday fall in
September 2014

G N AGARWAL
ASHA J JOSHI
N C DAS
V K VYDIANATHAN

(Birthday greetings to fellow members who have attained 60 years of age)

STUDENT COLUMN

MCEV PRICING FOR NON PAR PRODUCTS

About the Author

rohitajg@rediffmail.com

Rohit Ajgaonkar is an qualified Actuary. He is currently working with Ernst&Young LLP

Introduction:

The purpose of the article is to explain the construction and the concept behind the calculation of the Market Consistent Embedded Value of New of Business in the process of pricing of life insurance contracts.

MCEV has emerged as an important tool in the insurance industry after the release of the principles of MCEV in the CFO Forum in October 2009. In India, most of the companies still continue using the Traditional Embedded Value (TEV) approach to price the new products. Very few companies have migrated to the approach of using MCEV to price products. The major differences between the TEV and the MCEV approach in pricing of the life insurance policies are as follows:

- MCEV advocates explicit valuation of options and guarantees using an appropriate stochastic approach
- Discounting of cashflows is based on risk based discount rate in TEV while in MCEV the discounting is based on the risk free reference rate
- MCEV explicitly allows for the investment expenses on required capital
- MCEV has explicit allowance for computation of Non Hedgeable risks

What is MCEV- The CFO Forum

The CFO Forum laid out the principles of MCEV. The MCEV Principles document lays out the approach and the computation of different components to arrive at the MCEV. MCEV is the consolidated value of shareholders' interests in a covered business. It is calculated as the present value of future profits emerging from the business after allowance for the risks using market consistent assumptions. The reason for using market consistent assumptions is to ensure that the cashflows emerging are valued and accounted for in an identical fashion ensuring consistency with the similar cashflows emerging in the capital or secondary markets. One typical point which stands out as a major differential from the TEV approach is that the rate of return assumed on the surplus and the reserves is identical to the rate of interest used to discount future profits or cashflows emerging from the portfolio. The CFO Forum prescribes this rate as the reference rate for discounting. The reference rate as per the principles should be ideally the suitable swap yield curve with the allowance for liquidity premium.

The CFO forum sets out the following main components for MCEV:

1. **Free Surplus:**

   The free surplus is the market value of any assets allocated to, but not required to support, the inforce business at the valuation date

2. **Required Capital:**

   Required capital is the market value of assets, attributed to the business over and above that required to back the liabilities, whose distribution to shareholders is restricted. The required capital must be at least equal to the value as prescribed by the IRDA but it can include any specific additions which are present to meet the internal company requirements.

3. **Present Value of Future Profits:**

   These are present value of profits emerging post tax. The cashflows are projected based on the assumptions and the product features for the term of the contract. The PVFP reflects the intrinsic value of financial value of options and guarantees, i.e. the value if the option was exercised today under a deterministic scenario.

4. **Time Value of Financial Options and Guarantees:**

   Allowance must be made in the calculations for the potential impact of the future shareholder cashflows of all the financing options and guarantees. The allowance must be made based on stochastic techniques using assumptions and methods that are consistent with the underlying embedded or new business value. Management discretion or future management action arising from the guarantees being in the money can be considered while valuing these options. However, at all-time points it should be considered that the shareholders pay off all the claims arising even though the assets are exhausted.

5. **Cost of Non Hedgeable Risk:**

   This is the allowance for all the risks which are not allowed for in the time value of future options and guarantees and the calculation of PVFP. These include both financial and the non-financial risks. The methodology for calculation is however not specified, but the principles state that they should be allowed for as an equivalent average cost of capital. A single average charge should be calculated across all the residual non hedgeable risks, such that the present value of charges levied on the projected residual non hedgeable risk based capital equates the cost of non hedgeable risk. This implies the following three steps:

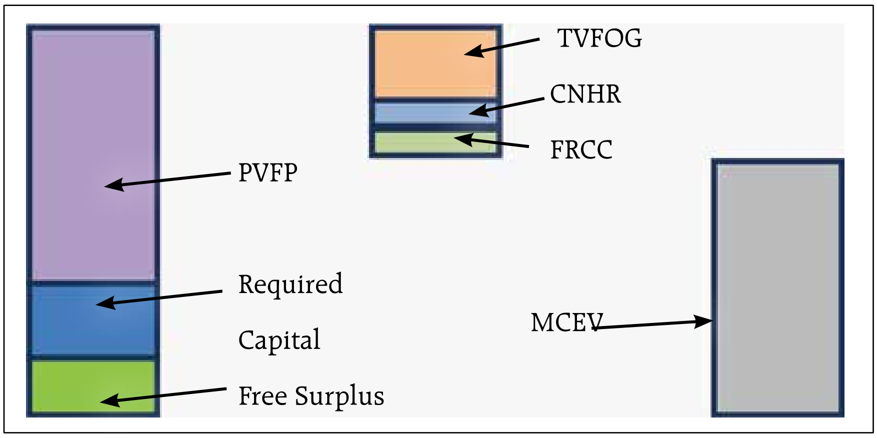
   a. Projection of required capital related to the non-hedgeable risk over the lifetime of the liabilities

   b. Calculation of the annual cost of capital charge by applying a cost of capital rate to the annual non- hedgeable required capital amount

c. Calculation of the allowance for non hedgeable as the present value of the annual cost of capital charges

6. **Frictional Cost of Required Capital:**

Frictional cost of required capital represent the allowance for taxation and the investment costs of assets backing the required capital.



Components and Impact on Pricing:

Though the CFO Forum lays out the principles for the computation of Embedded Value the logic and the components can be extended to the pricing of life insurance contracts. It should be also noted that all the components are not applicable in the calculation of the value of new business. For instance, free surplus is not required to be calculated for computing new business value. Required capital also needs to be computed for the block of the policies which are being priced based on the regulatory or internal requirements. As such the MCEV of New Business is basically decomposed to the computation of present value of future profits using appropriate investment return and discount rate assumptions with the allowance for non hedgeable risks and the cost of guarantees and the frictional cost of the capital. It should however be noted that the investment return assumption should be gross of investment expenses since the investment expenses are included in the frictional cost of capital.

Determining the components of the Value of New Business on an MCEV basis:

1. **PVFP:**

The present value of future profits are determined by projecting the cashflows of the priced product and then discounting the same at the risk free rate as mentioned above. Intrinsic options and guarantees which are basically the product features like death or surrender benefits are allowed for in this calculation. The best estimate assumptions should be used for the calculation. In case the best estimate\assumptions are not available the pricing assumptions should be used. Expenses and overheads if any should be allowed for in the computation of the present value of future profits. Also tax should be considered based on the stipulated percentages.

2. **TVFOG(Time Value of Financial Options and Guarantees)**

If there is an embedded option, like a maturity guarantee based on specified NAV, stochastic techniques should be used to compute the same. The stochastic techniques will involve running a range of scenarios based on different interest rate or investment return assumptions. The PVFP for all the scenarios generated should be computed. All the outcomes can be considered to determine the time value of the options of guarantees based on the level of prudence required.

It should be noted that the TVFOG can and ideally should include any management actions that can be triggered due to a specific scenario or scenarios emerging plus should also take into account the changes that are expected in the policyholder behaviour as a result of the changing environment.

3. **Frictional Cost of Required Capital:**

Frictional cost of capital is computed as the present value of the investment expenses and tax on the assets which are backing the required capital computed.

4. **Required Capital:**

Required capital for the priced product will be calculated as the capital required over and above the liabilities as prescribed by the regulator IRDA and considering the minimum solvency level requirement. It can however be higher than the regulatory guidance based on the internal requirement if any.

5. **Cost of Non Hedgeable Risk:**

Like mentioned earlier, the CFO forum does not outline the specific approach for the calculation of CNHR. It just specifies that it should be presented as an average cost of capital. The economic capital approach can be used for the computation of the CNHR based on various stress scenarios like as specified in the QIS 5. The correlation matrix as specified in the QIS 5 can be taken to assess the interdependencies of the risks involved. Based on the specification in QIS 5 the economic capital can be calculated and based on that the cost of the capital can be taken based on annual charge as determined by the company. The QIS 5 specifies the charge to be 6% (Normal range is 2% to 6%) but it can vary from company to company based on the risk assessment. Operational Risks should ideally be also taken into account. Also allowance can be made for the reinvestment risks specific to the long term contracts.

Once the components are determined the product is priced to determine the premium based on the profit criterion for e.g. -a target hurdle rate.

Like mentioned earlier, the major

difference between TEV and the MCEV approach is that the TEV approach uses the risk free rate plus risk premium to discount the cashflows. The risk premium addition is the allowance for the different risk which the MECV approach tries to explicitly identify and compute.

MCEV vs TEV Results:

Analysis of pricing products using MCEV and TEV reveals that the products with significant guarantees report lower new business value on an MCEV basis than TEV basis. The main reason for this can be attributed to the explicit allowance for these guarantees being accounted for under the MCEV approach through stochastic techniques.

Challenges in Implementation:

It should be however noted that the implementation of MCEV has its own challenges as well. The principles ask for the reference rate to be based on the swap rate. The swap rate is volatile and can change frequently over the course of pricing the contract which can cause significant volatilities in the value attributed to the business. Also the stochastic approach for computation of TVFOG would require the scenarios to change based on the changing economic environment. The computation of CNHR is also a big hurdle due to the lack of clarity in the computation of the same.

To summarise, MCEV approach to calculate the value of new business is certainly a useful measure of the profitability for the company. The superiority of the same over the TEV approach would be however based on the ability to accurately capture the risks and the computation of the TVFOG and the CNHR.

> **Intolerance is itself a form of violence and an obstacle to the growth of a true democratic spirit.**
>
> ~ Mahatma Gandhi

LIFE INSURANCE INDUSTRY UPDATE

Life insurance has been in the spotlight in the last few months with the new government announcing various moves impacting the segment. The Union Budget announced a hike in foreign direct investment (FDI) limit in the insurance sector from the current 26% to 49%. The Insurance Bill is currently with a Select Parliamentary Committee for review and the Finance Ministry is reportedly very keen to push this through in the next Parliament session, to address the capitalization needs of the industry and facilitate expansion and increased penetration of life insurance in the country.

The Union Budget increased the Section 80C tax exemption limit (which includes specified savings instruments including life insurance) from INR1 lakh to INR1.5 lakh which can boost life insurance to some degree, however there have also been demands to specify a separate exemption limit for life insurance. The Budget also proposed that life insurers should deduct tax at source of 2% from maturity proceeds of a life insurance policy if the premium paid is more than 10 per cent of the sum assured, effective 1 October 2014. The Prime Minister also recently announced a financial inclusion scheme, called 'Pradhan Mantri Jan Dhan Yojana', which seeks to provide a life insurance cover amounting to INR30,000, in addition to an accident insurance cover of INR100,000 for individuals opening a bank account under the scheme. An annual premium of INR200 will be charged, half of which will be subsidised by the government. The state-owned insurer, the Life Insurance Corporation of India (LIC), is working on the premium and claims payment related modalities of the planned life cover.

Meanwhile, new premium figures released by the Insurance Regulatory and Development Authority (IRDA) indicate encouraging trends – the industry collected weighted new business premiums of INR97 billion in the first quarter of FY2014-15, recording a year-on-year growth of 7.5%. With largely revamped products on offer in relatively spirited macro-economic conditions, the private sector insurers led the market in this quarter and recorded a healthy growth of 12%, outperforming the state-owned market leader LIC which booked a modest growth of 4%.

The industry saw over 40 product launches by life insurers since March 2014, with continued inclination towards traditional non-linked products for the time being. The LIC and 16 private insurers are yet to launch any unit-linked plan compliant with the new product regulations; one may speculate that an array of unit-linked plans might well be in the pipeline for launch in the next few months.

While foreign investors are keen to increase their stakes in life insurance joint ventures once the FDI limits are raised, there are press reports indicating divestiture by some of the domestic shareholders. Jammu & Kashmir Bank has announced its plan to exit the insurance business by offloading its 5% stake in PNB MetLife and utilize the proceeds towards strengthening its core banking business. Reportedly, State Bank of India (SBI) is also considering divesting some stake in its life insurance unit through listing on the stock exchange to raise capital for its core banking business.

The past few months also saw a slew of regulatory developments as the insurance regulator focused on increasing insurance penetration and ensuring policyholder protection, among other reforms.

The exposure draft on Insurance Marketing Firms (IMF) continued to be under discussion with some concerns expressed around the areas of IMFs' remuneration structure, consent accorded to IMFs to sell financial products other than insurance and restriction of IMFs to a single district among others. The IRDA also issued an exposure draft on the guidelines on replacement of life insurance policies with the objective of protecting policyholder interests and discouraging mis-selling. Replacement of a life insurance policy refers to selling a new insurance policy to an existing policyholder within six months from the date of lapse, surrender, paid-up conversion or alteration in benefits or premiums of the existing policy. The guidelines include requirement for the intermediaries to obtain written consent from the prospect to such effect, along with particulars of the existing policies held and the proposed new policies. Existing insurers must be notified of such replacement and they are obligated to communicate the advantages of continuing the existing policy to the policyholder within seven days from receipt of the notice. A proposal form is also required to be submitted to the new insurer which provides consent of the prospect along with reasons for replacement.

Few other recent regulatory developments are:

- The two-month long pilot launch of the insurance repository system was initiated effective 1 July 2014. Insurers were prohibited from declining requests for electronic policy by existing or new policyholders during this phase. They are also required to convert a specified minimum number of policies into electronic form over the duration of the pilot launch. Although the initiative has apparent advantages, the industry appears to be divided in opinion over its merits.

About the Author

vivek.jalan@Towerswatson.com

Director-Risk Consulting India Towers Watson.

- The regulator has issued revised guidelines on investment by insurers in forward rate agreements, interest rate swaps (IRS) and exchange traded interest rate futures (IRF) allowing insurers to hedge their interest rate risks using longer-term investments in light of changes in the investment environment and product structures. The guidelines prohibit investment in IRS with implicit or explicit options and mandate the use of these derivatives solely for hedging purposes.

  Following the circular, Edelweiss Tokio Life carried out the first trade of the insurance sector in IRF on the National Stock Exchange.

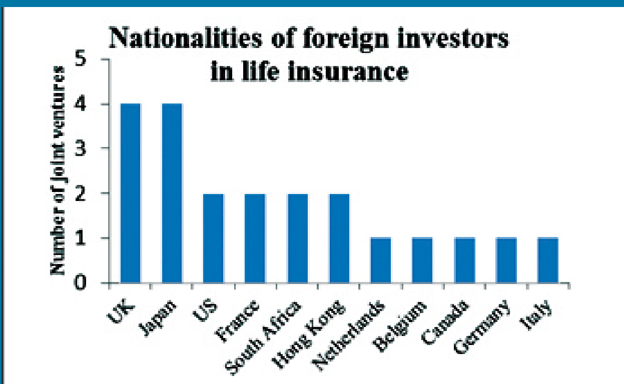
- The IRDA has permitted insurers to seek membership of Securities and Exchange Board of India (SEBI) for proprietary trading. This is, however, subject to certain conditions including obtaining consent of the Board of Directors for such membership, compliance with SEBI guidelines in this regard, implementing separate monitoring of trading transactions, among others.

On the distribution front, Standard Chartered Bank inked a 15-year deal with ICICI Prudential Life and thus concluded its partnership with Bajaj Allianz Life. The deal is part of a pan-Asian bancassurance tie-up between Standard Chartered Plc and Prudential Plc and covers 10 other markets apart from India.

Online plans continue to find favour with life insurers and customers given their advantages in terms of affordability, transparency, convenience, availability and customer-centricity. The latest entrant to the list of insurers employing the online medium is the state-owned insurer, LIC. Meanwhile, HDFC Life, which has witnessed a twenty-fold rise in its online sales since 2012 to INR3 billion, is reportedly aiming to double the said figure by 2016.

More innovative initiatives have been launched to encourage customer interaction and make insurance solutions simpler and easily accessible. The LIC, Birla Sun Life and AEGON Religare Life are examples of a few insurers who have launched initiatives such as a mobile application, technology platform or online game. There have also been initiatives by insurers to enable swift claim settlement. Reliance Life and IDBI Federal Life have launched initiatives to settle claims within a specified period of time, failing which the insurer shall pay interest on the sum assured.

Overall, there is increasing focus on customer service and protection, while seeking wider distribution avenues and enhancing use of technology.



Investors from a total of 11 countries have presence in the Indian market currently, with the number of operations of the United Kingdom and Japan investors currently at the top of the list.

There could be a change in the investor profile following the relaxation of the FDI limit in the insurance sector.

We recently witnessed the exit of the UK-based insurer ING from the Indian market while a few others have also expressed their plans to follow suit, in line with the strategy to exit the Asian markets and focus on the domestic markets.

There have also been press reports that insurers from new markets such as South Korea have been looking to enter the Indian market. In view of strengthening ties between India and Japan, and an announcement from the latter stating its plans to invest more than USD30 billion in India over the next five years, we may also see more insurers from Japan investing in India over the next few years.

FUNNY ACTUARY

A man walks into the actuarial department of an insurance company and sees three actuarial students busily involved in the center of the room. One is holding a long board upright; the second is steadying a chair on a desk upon which the third student is balanced. The third student has one end of a tape measure and the first student has the other. The intruder asks, "What in the world are you doing?" The actuarial students answer, "We're trying to measure this board." The intruder says, "Why not lay it down on the floor and measure it?" The students answer, "We already know how long it is, now we want to see how tall it is.

by Eric Shipley

Advisory Group on Life Insurance

The LIAG (Life Insurance Advisory Group) is responsible for addressing issues in respect of life insurance that are either referred to it or it considers appropriate to address and advise the Council for appropriate action.

The Life Industry has undergone significant changes in terms of both business dynamics as well as in terms of the Regulatory framework. The actuaries working in the industry particularly the Appointed Actuaries have had to face severe challenges so as to face up to the demands on account of these.

The LIAG, over the last few years has worked towards supporting the actuaries, so that they are able to function appropriately in this time of change. It has interacted with the Regulator providing inputs to proposed regulatory changes. It has also carried the views of the actuaries to the Regulator. The Product Regulations of last year was one area where the Group has worked very closely with the Actuarial community.

In order to strengthen the actuarial best practice within the Life Companies, a few GNs/APSs have been put in place and a few more are also in the due process. To mention a few, there have been GNs on Reserving for Guarantees in Life Insurance business, Management of Participating Business and Determination of Embedded Value etc. A few are currently in due process which cover areas such as the With Profits Committee etc.

The other areas where the Group works on is reviewing and updating the Actuarial Practice standards and GNs so as to keep them abreast of the industry requirements and regulatory changes. In this context, some of the APS/GNs are currently being reviewed.

The Group is also actively engaged in designing and carrying out Continuing Professional Development Programmes including seminars and workshops for enhancement of skills of members in the Life Practice area. The CILA Seminar is the flagship seminar that the Group conducts. The last one was held in November 2013 and the next one is scheduled for the 28th of November 2014.

The 1st Capacity building seminar was held on the 9th of August 2014. The objective is to impart actuarial skills of technical nature through these seminars. The topics selected are generally on the emerging areas of actuarial practice, to which our members would not have been greatly exposed to. The Group aims to hold more of such seminars in future.

Remembering Shri Nalin R Kapadia

(25 November 1935 – 31 August 2014)

We were shocked and deeply distressed to know that Shri Nalin R Kapadia, our Fellow Member and a former President, passed away on 31 August 2014 at Mumbai at the age of 78 years.

Shri N R Kapadia, B.Com. completed his Fellowship of the Institute of Actuaries, London in 1963. He had an illustrious professional career, starting as an employee and later by consultancy services through his actuarial firm. His work in all the areas was marked by excellence and distinct achievements. He served the profession from the 1960s in a variety of roles culminating as President of the then Actuarial Society of India during 2001-02.

He started his career with the actuarial firm of Late Shri K A Pandit. He was employed with the Life Insurance Corporation of India till 1974, during which he made a significant contribution by setting up the group insurance, gratuity and pensions schemes business on the path of faster growth and thus made it an important part of the Corporation's business. During 1974 – 84 he branched out into the wider field and made his mark in the finance area as General Manager of Special Steels Limited, Mumbai. Thereafter he was in Zimbabwe for 10 years heading the life business of Old Mutual Zimbabwe.

He returned to India in 1994 and was active in actuarial practice through his consultancy firm in employee benefits, life insurance and social security benefits for clients based in India and overseas. In the process he has trained quite a few actuarial students and helped them in qualifying as actuaries. The actuarial students who worked with him acknowledge his support as mentor in many areas such as studies, research, writing papers, technical work and professional guidance. He was active at work till the last day of his life.

He regularly attended seminars and conferences and always made notable contributions. He has authored a number of papers to the Institute's Seminars and Conferences. As part of his service to the profession he spearheaded various initiatives at different stages.

Shri N R Kapadia endeared himself to all those who came in association with him, through his energy, vision, goal orientation, powerful communication and performance and in terms of his friendliness, personal and professional help and the technical and professional rigour with which he handled subjects and assignments.

Shri N R Kapadia leaves behind his wife, son, daughter and their families. We pray to the Almighty that may his soul rest in peace and to give strength to the family members in their hour of grief.

by V. Rajagopalan

FROM THE PRESS

IANS : Price Discovery must for insurance coverage under Jan Dhan Scheme; 8th Sep, 2014

Chennai, Sep 8 (IANS) There should be a proper price/premium discovery through data analysis and a tender for the accident insurance cover offered under the Pradhan Mantri Jan Dhan Yojana, a top official of an insurance company said.

"Discovery of proper pricing through a tender for the Pradhan Mantri Jan Dhan Yojana is important so that all the players - private and public - get an opportunity to participate," a top official of a private insurer told IANS preferring anonymity.

According to him, the mega financial inclusion scheme is a new one and proper price discovery for the accident insurance is important given the huge numbers.

The government hopes to open around 7.5 crore new bank accounts as part of the financial inclusion scheme.

Each account holder will be offered a RuPay card with an accident cover of Rs.100,000.

The RuPay card is administered by the National Payment Corporation of India Ltd (NPCI).

According to insurance industry officials, the mandate for providing the accident insurance cover has been given to another private insurer though there is no official announcement to this effect.

The officials said the Jan Dhan Yojana scheme has changed the entire dynamics of the insurance coverage and hence proper price discovery has to be there.

The managing director and CEO of NPCI, A.P. Hota, was not available for clarifications when contacted by IANS.

"When the country wants foreign direct investment (FDI) in insurance there should be level playing field for the players," the official remarked.

A senior industry official did agree that actuarial analysis could be made from the number of lives currently covered under the accident insurance offered by general insurers and the life insurers as an additional risk cover.

Meanwhile, clarity is needed as to the amount of insurance - life and accident - coverage available for the account holder and the conditions under which claims are payable.

"The account holders should be clearly told as to the conditions of insurance coverage upfront so that confusion does not arise at a latter stage," R. Chandrasekaran, secretary general, General Insurance Council of India, told IANS.

He agreed that the risk of insurance industry getting a negative image - that it accepts premium but not the claims - if the policy conditions are not explained to the Jan Dhan Yojana account holders clearly.

Given the basic purpose of the Jan Dhan Yojana scheme - financial inclusion of the poor - and the demographic profile of the people targeted, stipulating conditions like the usage of debit/credit cards certain days prior to the claim is also not fair, feel industry experts.

As many banks have promoted general insurance companies, industry officials also expect them to approach the government with a demand that they should be able to provide insurance cover to their account holders, the industry officials said.

Reference:

https://www.google.co.in/webhp?sourceid=chrome-nstant&ion=1&espv=2&ie=UTF8#q=Price+discovery+must+for+insurance+coverage+under+Jan+Dhan+scheme&tbs=sbd:1,nsd:1&tbm=nws&filter=0

■■■

CAREER CORNER

Invitation for offers for engagement of Actuary

The Chief General Manager, Postal Life Insurance, Chanakyapuri P.O. building, New Delhi-110021 invites offers from interested fellow members of the Actuarial Society of India for engagement of an Actuary for a period of two years initially and extendable by one year on the prescribed application form. The Actuary will be required to do Actuarial Valuation of Post Office Life Insurance Fund (POLIF), Rural Post Office Life Insurance Fund (RPOLIF) and Gramin Dak Sevaks Group Insurance Fund (GDSGIF). He will also be a member of POLIF and RPOLIF Investment Board. The Actuary would also be required to provide actuarial advice of different types as per requirements of Life Insurance business from time to time and design new products for Postal Life Insurance and Rural Postal Life Insurance. The tender document, along with terms and conditions, has been uploaded on www.eprocure.gov.in. The bidders can log on to the website and see the tender document. The interested eligible Actuaries who are desirous of participating in e-procurement shall submit their Technical bids/proposals in the standard formats prescribed in the Technical documents, displayed at www.eprocure.gov.in . The bidders should upload the scanned copies of all relevant certificates, documents etc. in www.eprocure.gov.in in support of their Technical bids. The bidder should sign on all statements, documents, etc. uploaded by him, owning responsibility for their correctness/authenticity. Bid documents can also be down loaded from www.indiapost.gov.in . Downloaded applications/forms may also be submitted by hand alongwith financial bids to the undersigned by 26.09.2014 (1500 hrs) . .In case of any query relating to uploading the bids in www.eprocure.gov.in or submission down loaded bids as hard copy please contact undersigned . Query , if any , may also be e.mailed on amplidte@gmail.com.

Sd-

Amitabh Singh
Addl. General Manager (PLI)
Directorate of Postal Life Insurance
Chanakyapuri Post Office Complex
New Delhi-110021
Phone : 011-24674794

PAKISTAN TAKAFUL UPDATE

The Securities and Exchange Commission of Pakistan (SECP) issued Takaful Rules 2012, replacing the earlier issued Takaful Rules 2005. The new rules allowed conventional insurance companies to participate in window Takaful operations. Existing Takaful players objected and filed a petition in the court against the provisions of the rules, upon which the Court issued restraining orders.

The restraining orders were taken back in May 2014, thus allowing conventional operators to offer window Takaful operations. As a compromise, SECP introduced an additional condition that the conventional insurers interested to have window Takaful operations will have to deposit a sum of PKR 50 million (approx. USD 0.5 million) in a separate bank account.

This country update provides commentary on Takaful Rules 2012 issued by SECP on 16th July 2012.

1. Takaful Business Model

Takaful Rules 2012 do not provide specific details of Takaful Business Model, however the following contracts are allowed under the new rules:

1. Wakala Contract
2. Modaraba Contract
3. A combination of the above as determined sound and workable by the Shariah Advisor

2. Conditions to Transact Takaful Business

The rules require obtaining certificate of authorization from the SECP to carry out Takaful business as Takaful Operator or Window Takaful Operator. The rules specify that Conventional Unit Linked offering Shariah Compliant investments will not be considered equivalent to Takaful business.

Licensing requirements for a new and window Takaful operator are similar to that of a conventional insurer including a 10 year Business Plan, ownership structure, organizational chart etc. Details can be found on SECP's website.

3. Conditions applicable to Operator

The operator is required to comply with the following requirements in order to offer Takaful business:

❖ Requirements to Comply with Shariah Principles

All operators are required to appoint following individuals to comply with Shariah principles:

(a) Shariah Advisor,

(b) Shariah compliance auditor, and

(c) Shariah compliance officer

The rules provide details on responsibilities of the above along with prerequisite qualifications where applicable.

❖ Operational Model for Family Takaful

Operators offering Family Takaful business are required to set up one or more statutory funds exclusively for Takaful business (in line with the requirements of Insurance Ordinance 2000). They are further required to divide each statutory fund set up for Takaful business into a number of sub-funds namely Participant Takaful Funds, an Operator sub-fund and in case of investment contracts, a Participant Investment Fund.

The operator is required to prepare a detailed policy of Participant Takaful Fund, fee structure and profit sharing ratio of investment management in accordance with the advice of the Shariah Advisor and the Appointed Actuary.

The Takaful Rules 2012 provide detailed guidelines on segregation of contributions and the allowable receipts, payments and reserves. The operator is explicitly disallowed to make payment out of Participant Takaful Fund for marketing or sales expenses (including commissions), administrative and management expenses.

❖ Operational Model for General Takaful

Operators offering General Takaful business are required to set up an Operator Fund and one or more Participant Takaful Funds.

Similar to Family Takaful, General Takaful operator is required to prepare a detailed policy of Participant Takaful Fund, however role of Appointed Actuary is not required here. The detailed guidelines on receipts, payments and reserves as given above are also applicable here.

❖ Further Conditions for Window Takaful Operator

In addition to the general conditions outlined in the Takaful Rules 2012, further conditions applicable on Window Takaful Operator are:

a) All head of departments of the Window Takaful operations are required to be separate from the Conventional Insurance business.

b) The operator is required to report all assets, liabilities, revenues, expenses separately for Takaful and Conventional Insurance business.

c) All documents sent to third party are required to mention "Window Takaful Operations" below the company name.

d) Deposit a sum of PKR 50 million (approx. USD 0.5 million) in a separate bank account.

4. Participant Membership Document

Takaful Rules 2012 require the Operator to prepare Participant Membership Document, highlighting in detail the benefits and obligations of each participant for each Takaful Contract. This includes:

a) Rights and obligations of Participants

b) Procedure of division of contribution between Participant Takaful Fund, Participant Investment Fund and Operator Sub Fund.

c) Method of determination of fees and share of investment income payable to Operator

d) Procedure for and timing of

transfer of funds between Participant Takaful Fund, Participant Investment Fund and Operator Sub-Fund

e) Procedure for claims payment and payment of Takaful benefits.

f) The procedure for pooling money for investment purposes in under Participant Investment Fund

g) Terms and conditions on which the Operator will manage the Participant Takaful Fund and Participant Investment Fund

5. Qard-e-Hasna (interest free loan)

The Operator is required to give Qard-e-Hasana to meet deficits in the Takaful Fund. In the case of General Takaful, the requirement of Qard-e-Hasana is triggered when admissible assets in the Participant Takaful Fund are not sufficient to cover liabilities. In the case of Family Takaful, the requirement of Qard-e-Hasana is triggered when a Statutory Fund is not solvent as per the provisions of the Insurance Ordinance (2000).

Qard-e-Hasana is required to be recovered from the future surpluses prior to surplus distribution to participants. In the event that the deficits in the Participant Takaful Funds are covered by Qard-e-Hasna for three or more consecutive years, the Operator is required to submit a report to SECP entailing the reasons and signed off by the Appointed Actuary in case of Family Takaful, and Principal Officer in case of General Takaful.

6. Sharing of Surplus

The Takaful Rules 2012 prescribe evaluation of assets, liabilities and surplus/deficit position of the Participant Takaful Fund at the end of each financial year.

For General Takaful operators, the operator is required to formulate the surplus distribution mechanism. The SECP can also specify the surplus distribution mechanism for General Takaful operators.

For Family Takaful operators, the operator is required to formulate the mechanism for determination and distribution of surplus after approval from its appointed actuary. The surplus distribution mechanism is required to specify the frequency, method, entitlement conditions, basis and form of surplus distribution.

A Participant can donate his surplus for social or charitable purposes and may request the Operator to arrange for the transfer of the donation.

About the Author

info@naumanassociates.com

Nauman Cheema has been a fellow of the Society of Actuaries since 1982 and is the Chief Executive of Nauman Associates, a firm of consulting actuaries based in Lahore, Pakistan.

17th GCA Expression of Interest

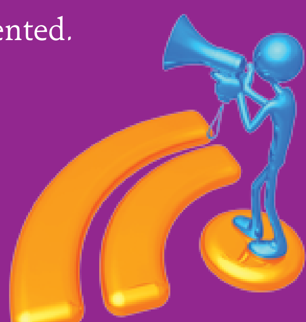
Institute of Actuaries of India invites **Expression of Interest** to present papers in 17th Global Conference of Actuaries to be held on 2nd & 3rd February, 2015. The same will be peer reviewed according to relevance to the conference Theme, originality of the work, specific results described, and potential impact. The Last date to submit Expression of Interest is **30th September, 2014.** No conference is successful unless thought provoking papers are presented and deliberated. Such papers also generate healthy discussions at the sessions.

17th GCA Theme: Changing Risks, Expecting the Unexpected

Topic Categories Life Insurance, General Insurance, Pensions & Social Security, Health Insurance, Enterprise Risk Management, Microinsurance etc. The topic chosen should be aligned to the theme of conference and from the fields of insurance, retirement benefits, finance, financial economics, investments and other similar fields of interest to Actuaries.

Expression of Interest Guidelines:

- EOI must be submitted in English, via the **Online Submission System** (available on 17th GCA website) only E-mail submission will NOT be accepted.
- It should not exceed 200 words.
- Only IAI members are expected to participate
- EOI will be selected based on their merit, quality & novelty of data presented.



Important Dates:

- Last date to submit EOI – 30th September, 2014
- Notification of Acceptance/ Rejection: 15th October, 2014
- Full paper Submission: 30th November, 2014
- PPT submission for presentation: 10th December, 2014

Point of Contact: binita@actuariesindia.org

PUZZLE

Puzzle No 219:

In a league of four soccer teams, each team played the other three. Two points were awarded for a win, one for a draw and none for a defeat. After all six games had been played, the following league table was prepared.

				Goals		
Team	Won	Drawn	Lost	For	Against	Points
A	2	1	0	4	0	5
B	1	2	0	2	1	4
C	0	2	1	1	3	2
D	0	1	2	2	5	1

What was the score in each of the six games?

Puzzle No 220:

Three children of different ages share the same birthday. On one of their birthdays, one of their ages was the sum of the other two ages. On another birthday a few years later the youngest observed that one of their ages was half the sum of the other two ages. When the number of years since the first occasion was half the sum of the ages on that occasion, one celebrated her 18th birthday. What birthdays were the other two celebrating at this time?

Solutions to puzzles

Puzzle No 215:

Twenty hexagons and twelve pentagons have $20 \times 6 + 12 \times 5 = 180$ sides between them. Each side is paired with another when sewn, giving 90 pairs of edges to be stitched. The length of thread needed is therefore 900 cm.

Puzzle No 216:

Q = 67980

Correct solutions were received from

Puzzle No 215:

1. Graham Lyons (900 cms)
2. Aayush Agarwal (900 cms)
3. Rohit Baid
4. Nikhil Kamdar
5. Indranil Deshmukh

Puzzle No 216:

1. Suresh Sindhi
2. Shilpi Jain
3. C.N.V.Ramarao
4. Graham Lyons
5. Aayush Agarwal
6. Bhagirathi P.R.
7. Rohit Baid
8. Kripa Choudhary
9. Shreya Chheda
10. Sourav Mahapatra
11. Nikhil Kamdar
12. CA. Pravinkumar A.
13. Shruthi Iyengar
14. Indranil Deshmukh

shilpa_vm@hotmail.com

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 for submitting the articles are available at http://www.actuariesindia.org/subMenu.aspx?id=106&val=submit_article

SUDOKU

SUDOKU No. 25 for the month of September 2014

SUDOKU HARD

	4		9			5		
	6		8	3		4		
	1		7			2		
4				5				9
7			2		9			8
2				6				3
		8			2		7	
		9		7	4		6	
		4			3		1	

HOW TO PLAY

Fill in the grid so that every horizontal row, every vertical column and every 3x3 box contains the digits 1-9, without repeating the numbers in the same row, column or box.

You can't change the digits already given in the grid.

- Sudoku Puzzle by Vinod Kumar

Solution of Sudoku Puzzle No.24 published in the Month of August 2014

SOLUTION

5	4	3	9	2	6	7	8	1
7	6	9	3	1	8	2	5	4
8	1	2	5	4	7	6	3	9
6	5	1	4	7	3	8	9	2
9	2	7	1	8	5	3	4	6
4	3	8	2	6	9	5	1	7
1	1	6	8	5	2	4	7	3
3	7	5	6	9	4	1	2	8
2	8	4	7	3	1	9	6	5

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