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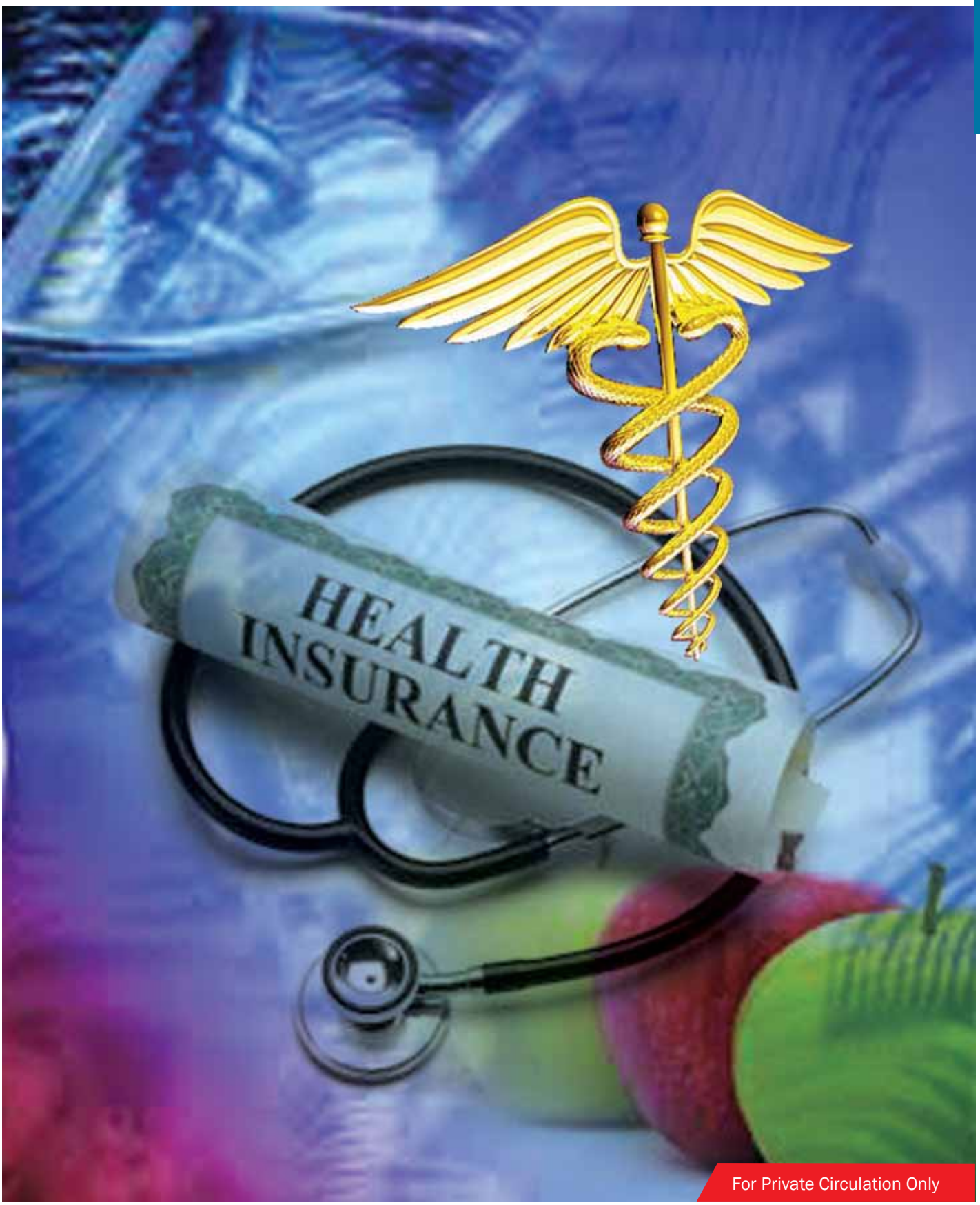

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IALM 2006-08: IS THERE A NEED FOR CHANGE?

by Tushar Chatterjee

Introduction

The Institute of Actuaries of India (IAI) have issued a new set of mortality tables which are referred to as the IALM 06-08 and the Insurance Regulatory and Development Authority (IRDA) (Circular IRDA/ACT/CIR/MISC/033/02/2013) have concurred with IAI to adopt this table as the standard mortality table. The standard mortality table will be used by the Appointed Actuaries in setting assumptions for pricing and reserving, and justifying any adjustments to be made to this table. This table has been developed by the Mortality and Morbidity Investigation Bureau (MMIB) based on the data shared by the life insurance companies in India.

The purpose of this article is to consider the similarities and differences between the IALM 06-08 and IALM 94-96 and provide my views on how these might impact the mortality assumptions currently being used by different insurers. I will not go into the details of the development of the tables and their graduation which can be found in the report by MMIB.

Comparison of the mortality tables

Since the opening up of the life insurance industry to private players in India, the standard mortality table used is the IALM 94-96. This table is based on the insured population experience between the years 1994 and 1996. The IALM 94-96 is essentially based on the experience of Life Insurance Corporation of India (LIC), being the only life insurer in operation at that time. The new table IALM 06-08 is based on the insured population experience between the years 2006 and 2008, and is based on the experience of the private insurers as well as LIC.

The figure below shows the comparison of the two tables. Due to the difference in scale, the figures are shown separately for age groups less than or equal to 50 (Figure 1) and greater than 50 (Figure 2).

As seen from the below two figures, there are no significant changes in the shape of the mortality curve for age 50 years and below except may be at very young ages; however, there are significant changes in the shape of the mortality curve for 50 years old and above. The tables are comparable as they are calibrated for the similar population which is based on the male lives that have undergone medical tests and is the ultimate table. The smoothing method is also similar and hence does not introduce any variation between IALM 06-08 and IALM 94-96.

Figure 1

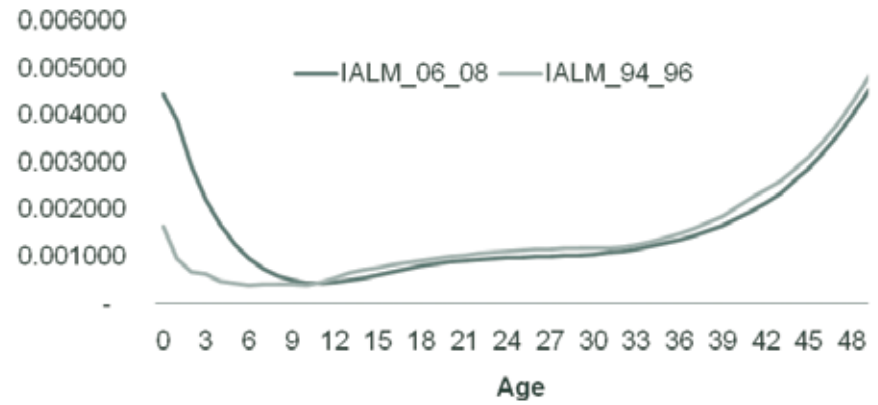
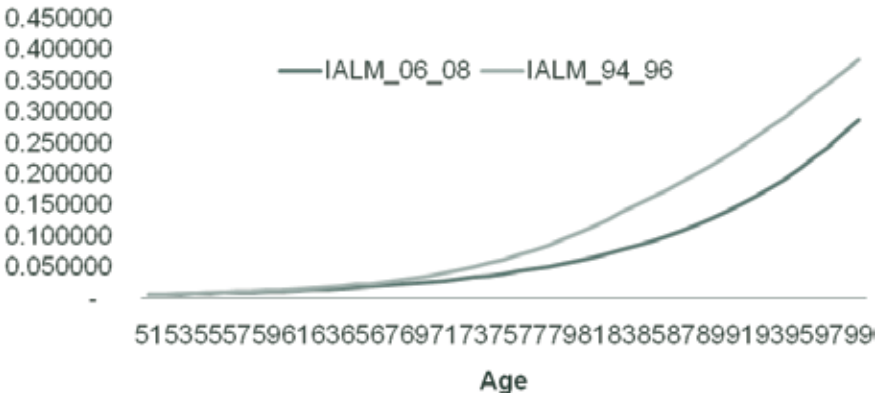


Figure 2



The differences are therefore due to the changes in the underlying population and the mortality experience of that population. IALM 06-08 includes the experience from private players whose target population is different from that of LIC and as a result, that should change the overall population mix on which the experience is based on. Some of the difference between the target populations is driven by factors like:

- The geographical reach of the private players being more concentrated in urban and semi-urban areas.
- More bancassurance-based distribution reach resulting in more financially sophisticated customers and possibly people with higher disposable income.
- Targeted sales and products towards younger people.

Given the above factors, one would

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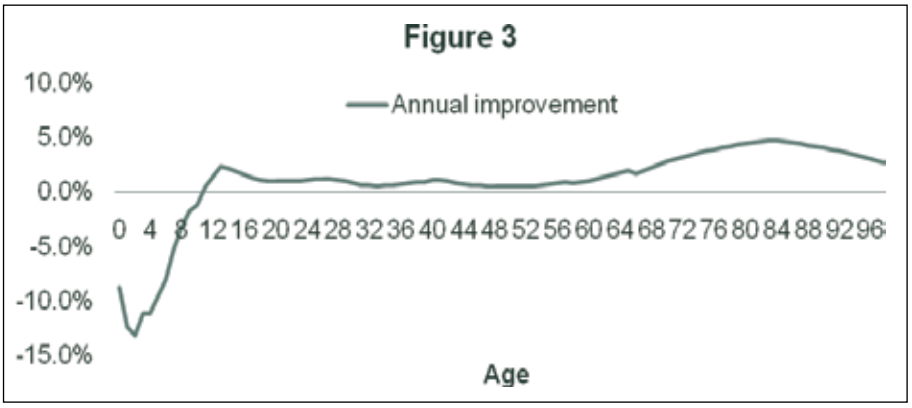
Tushar has more than 13 years of experience having worked in reinsurance, direct insurance, consulting and academics. He has done a PhD covering the impact of medical advances on the incidence of heart attacks, stroke and death. He has interest in the impact of the medical advances and lifestyle habits on mortality and morbidity trends.

expect the mortality rates to be better, as it is expected that the population in urban areas or people with more financial sophistication to have a better mortality experience.

In addition, there have been significant improvement in access to medical facilities and improvement in medical sciences leading to improved mortality over the last decade. This is the reason there is a significant improvement in the mortality in IALM 06-08. Figure 3 illustrates the annual mortality improvement between 94-96 and 06-08.



As can be seen from Figure 3, the mortality has deteriorated in the early ages and improved significantly in the older ages. In this article, I will not discuss in detail the drivers for these trends, but discuss the implications of the trends observed.

Assumption setting

The most important aspect of the change in the mortality table is the impact on the mortality assumptions. With the introduction of the new mortality tables, some reports in the popular press stated that the mortality assumption would change and hence insurance would become cheaper. This may be true for some new insurers who may not have their own experience and would use the industry table to set assumptions. However, insurers with their own experience will use the industry table and adjust these rates appropriately to reflect their specific experience. With the new table as the benchmark, the adjustments will be different, but the eventual mortality rates will be similar to what was used before.

The shape of the IALM 06-08 by age is different from the shape of IALM 94-96. So insurers using a constant factor across all ages to adjust the mortality rates will find a difference in the mortality rates which is consistent with a different shape. Some insurers can decide to change the shape of their premium curve and some others may use different adjustments at different ages to preserve the shape of the mortality rates calibrated to their own experience.

For the purposes of statutory valuation, adopting the new table will be easier. The new table, depending on how the own experience has been adjusted may lead to a one time impact on the reserve and may not be significant if the assumption is a close reflection of the experience.

For pricing, there may be wider implications, like change in the shape of the premium curve. This may have an impact on the customer behavior especially if different insurers in the market use the different shapes from the IALM 06-08 and IALM 94-96.

The embedded value calculations should have a one-time impact as well from the change in the shape of the mortality table, but should not be material from the overall value perspective as mortality profits tend to be a small portion of the overall profits in India.

From Figure 4, it can be seen that the mortality rates in IALM 06-08 is about 60% to 80% of the IALM 94-96. This is an impact over a period of 12 years. If the Actuary is setting assumptions in 2013, he/she should expect another six years of improvements and a further 10% to 20% reduction in the mortality rates and the insurers own experience should reflect this.

The factor that I have not seen being used for either pricing or valuation of mortality based products is the mortality improvement factors. The mortality improvement factors indicated from the tables above are quite significant and may provide enhanced future profitability if the trends continue. Again, this might be a small factor for many savings or investment products, but may enhance the profitability for term assurance products. With greater focus on term assurance, especially on the online platform, the mortality improvements can be a source of enhanced profitability and if passed on to the policyholder, it can result in lower premium rates for the policyholder.

Product related assumptions

Different product may cater to different target markets as they may be sold through different distribution channels, to different geographical coverage, and specific to a gender or to a different age group. Different products may be used to address different needs and hence may be attractive to different people with either different family structures, different levels of income or at different stage of their career. As a result, the mortality experience for the target population of the various products may be different. The Actuary would want to allow for the specifics of the products and set assumptions for that particular

product to be different from others. Thus a savings product to be sold to a rural population through agents will have a different assumption compared to protection product sold online.

The Actuary may use qualitative justification to indicate that the mortality rate should be different from the standard table, but the data may not be available to quantify this adjustment. He/She can use some judgment to determine the adjustments that are required to the standard tables to arrive at the mortality rates. In many of these situations, the reinsurer will be able to provide some guidance based on their knowledge of the home market and the experience from the markets around the globe.

Other considerations

For annuities, the recommended table is the Annuitants – LIC (1996-98) which is the most recent table looking at the experience of the annuitants. The table is different from the assured lives table as the experience of lives who have bought annuities is different from the experience of lives who have bought the assurance products.

Currently, the mortality improvement assumptions being used for the annuities are not specific for India. In some cases, the assumption may have been adapted from the assumption from UK or may have been an arbitrary assumption based on Actuary's judgment. This consideration is important as the UK population, for example, may have been exposed to drivers for mortality improvement for a longer duration than the Indian population and may already have achieved a majority of the mortality improvements from the current drivers. On the other hand, India may still have a significant potential of mortality improvement as it's drivers may not have had their full effect in India.

Although there is a difference in the lives covered for annuitants, the assured live mortality improvement can be used to form views on mortality improvements for the annuitants in India as the factors that would drive the mortality improvement will be very similar.

Institute of Actuaries of India

Announcement for members of IAI

The Actuary India Scheme of Awards for Best Article & Reportage for the Calendar year 2012 and thereafter till amended
The objectives: recognition of the efforts put in and encourages members to write for the Actuary India magazine either in the form of Articles and/or reportage for various IAI events.

Process of selection: Three member Selection Group will be appointed by the President in Dec. 2012 and every December thereafter to set parameters for selection and recommend best two Articles and best two Reportages in order of merit.

The Awards and recognition: Based on the Selection Group's recommendations, the following rules shall apply;

a) The awards will be given by the Chief Editor during the AGFA held immediately after the end of the calendar year 2012. The awards will be in the form of cash prize and recognition plaque.

b) The three member selection Group will send its recommendation by January each year based on editions published in a calendar year 2012 and each Calendar year thereafter.. Every member of the selection Committee will come out with his/her own list of best five articles/reportages. Thereafter, the Group will meet in the second week of January and come out with a commonly agreed upon best two. In the event there is no unanimity the Selection Group will decide on how to select the best two (e.g. going by majority view, draw of lots from the five best drawn by each or any other). This list, along with justifications, will be sent to the President well in time for him/her to announce.

c) The Author/s of first best Article and Reportage will receive a prize of ₹ 10,000/- for the Article and the Reportage and the next best will receive ₹ 5,000/- accordingly. In case there are more than one Authors, the amount will be allocated equally, however the recognitions plaques will be given to each.

d) In order to qualify each article/reportage should meet the following minimum criteria;

   I. at least about 500 words.

   II. should not be reproduced from articles elsewhere (while sending the article the author should give a declaration to this effect.

   III. Should be written by a member of the IAI (in the case of joint authors, all should be members of the IAI) at the time the article is published.

   IV. Reportage should be based on event organized by IAI only.

e) The award winning authors along with the Selections Groups key points on selection will be published in the March issue of the Actuary India each year.

Liyaquat Khan

CONTAINING THE BURGEONING HEALTH INSURANCE BILL!

by Raunak Jha

Importance of health insurance for employers:

Health Insurance is perceived as an effective social security alternative provided by employers to their employees and their dependent family members. Ideally, health insurance could be considered as an effective measure for employers to fund the cost of their employees' healthcare needs, resulting in a healthy and productive workforce. But traditional group health policies available in the Indian market offer coverage only against hospitalization risk, leaving out pre-hospitalization conditions and treatment that may have prevented the need of hospitalization. In most instances of hospitalization, it is almost certain that if the underlying condition(s) were discovered by doctors during outpatient consultation and then treated, the condition may have been arrested without having to be admitted.

Challenges posed by current environment:

At present, employers face a continuous challenge to contain cost of group health insurance with the ever increasing health care costs (i.e. higher severity) and growing lifestyle risks (i.e. higher frequencies). The fall out is ever increasing claims for insurers leading to quantum jumps in insurance premiums at each renewal; there have also been instances of mid-term increase in premium to keep pace with galloping claims. At the same time, it is seen that insurers are increasingly restricting coverage. Consequently, even the beneficiaries i.e. the employees are understandably dissatisfied that the nature and extent of coverage is getting progressively restricted; and in many instances, employees have to contribute towards the premium payable from out of their pockets.

Thus employers are not able to achieve their desired objective of keeping its workforce healthy, motivated and productive.

The question troubling most of the employers in the current scenario is this. What exactly is needed by employees and could be provided in a cost effective manner is. So let's see what are the different challenges faced by employers and how they can be dealt with.

"Group Health Insurance is used as a financial security tool by Employers to provide for their employees' healthcare needs.

In the recent times, the change in lifestyle and increasing medical costs have made it difficult for Employers to keep pace with the galloping medical insurance premium bill to provide for this responsibility.

This article tries to highlight the underlying problems and explores the possible alternatives that could be adopted or considered by the Institutions. "

Challenges first;

- **Year on year increase in cost of insurance:**

  The increasing cost of treatments has exposed organizations to financial burden of increasing insurance premiums which could be contained by either limiting existing benefits under insurance policy or sharing the costs with the employees which conflicts with the objective of providing these benefits.

- **Constant pressure from employees to increase benefits:**

  Most of the organizations are dealing with the employees' demands to increase benefits limits under existing insurance plans which are not in-line with the current costs and health seeking behavior under changing circumstances.

- **Limited Coverage:**

  Insurance benefit is restricted to hospitalization only and that too with policy terms & conditions that limit the coverage. Also, there is no scope for preventive healthcare / primary healthcare that's essential to be healthy and therefore minimize hospitalization.

- **Data insufficiency:**

  Insured organizations need but do not have sufficient data in time to know the health profile of its workforce and take corrective steps wherever applicable. They are dependent on data being collected by insurers and their Third Party Administrators (TPAs). This limits them to perform only rudimentary analysis based on the data provided by insurers / TPAs, limiting their understanding of emerging and underlying claims experience.

- **Paying for Insurance companies' profits:**

  Premiums charged by insurance companies include overheads like brokerage, administrative expenses, fees payable to TPA, and margins for profits plus service tax (that in itself is more than 10%). All these add up to form a significant portion of the total outgo from employers towards premium.

- **Less control over vendors:**

  - **Financial interest of TPAs:**

    Their service fee is mostly linked to premiums. This leaves TPAs with no incentive to lower claims costs that directly impacts premium.

  - **Biased attitude of hospitals:**

    Most if not all hospitals tend

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Raunak is the Student member of IAI. She has close to nine years of non-life insurance experience in areas like reserving, pricing, product designing, regulatory reporting and experience analysis. She is currently working as a Senior Consultant with Towers Watson and is playing an instrumental role in developing organization's Health Actuarial Consultancy practice in India.

to maximize billing through needless tests / procedures / prolonged stay when they treat an insured under a corporate health insurance policy. This increases the claims costs and hence future premiums costs for organizations.

Let's discuss what can be done:

- **Data comes first:**

  It's high time for companies to start investing in data collection processes in order to understand healthcare needs of its workforce from close. Sickness and its resultant absence behavior of workforce should be studied in different forms and segments to understand their specific behavior and related healthcare needs.

- **Invest in preventive healthcare:**

  Prevention is better than cure. Companies need to understand their employees' health needs from a long term perspective, device and implement appropriate wellness programmes by suitable vendors to alter employees' health behavior and help them increase their fitness and productivity levels.

- **Communicate and engage workforce:**

  It's always good to hear out from employees about what they want. Invest in effective communication with employees to understand their needs and encourage them to bring changes to their lives to attain overall fitness and reduce stress and hence illnesses. Engage leaders to take it forward and share the success stories of achievers to motivate other people.

- **Changes in existing insurance plans:**

  Ideally, seek inclusion of Outpatient costs towards preventive and primary healthcare to start with. And over time, bring in lifestyle management benefits under the existing insurance plans to reduce future frequency and severity of ailments or diseases and hence claims costs. Go for a structured coverage in the policy so that it can respond to a variety of situations.

- **Control over vendors:**

  Set clear performance benchmarks for TPAs' steering them to reduce costs and improve efficiencies. Have proper service level agreements in place stating the type and frequency of reports required by them.

  Keep a check on costs of treatments under different hospitals and compare the same with industry averages to identify anomalies and biases.

- **Learn from the market:**

  Clues could be taken from what others employers are doing to improve health and productivity of their employees and implement similar measures appropriate to one's organization.

- **Last but not the least: "Self-insure":**

  Why to pay for insurance companies' profits when a company knows what its workforce needs!

  Pay only for benefits which are highly uncertain and build a pool to meet the costs from predictable claims. This would save insurance costs and help in channelizing funds in the right direction.

  Is this approach followed by anyone at present? Yes, several leading Indian companies like Maruti, Air India, Hindustan Lever, etc. are already following the self-retention way.

  In the US market, one of the leading global health insurance company that is set to enter the Indian market shortly offers insurance to some of the largest US companies on 'excess of loss' basis, with the insured company retaining a large part of the risk (for predictable costs) on their own P&L instead of ground up risk transfer.

Conclusion:

The need to invest in employees' health and fitness has increased in the current growing economy where companies want to attract and retain achievers and looking after employees' healthcare needs has become imperative and essential. All companies are facing the challenges of increasing health insurance premium costs, inadequate covers, increased demand from workforce and are looking for solutions to overcome them. Few solutions have been stated and discussed here, but what works best needs to be selected by a feasibility study.

FUNNY ACTUARY

An actuary, two accountants and a hippie were flying in a four seat plane when the actuary calculated it was highly probable they would run out of gas and crash over the sea if they did not parachute to safety over land soon. The accountants found the parachutes and after several minutes of calculations came back together to announce there were only three parachutes, but four people. One of the accountants sarcastically looked at the actuary and said, "You actuaries are supposed to be so smart - why don't you figure out how 3 can equal 4?" The actuary seriously replied, "The proof would be a waste of time; the most logical way to decide this is to have the person with the smallest remaining life expectancy stay on the plane." When the actuary did the calculations, he decided that the 54 year old smoking hippie was the one who had to stay. With this decided, the actuary promptly grabbed a parachute and jumped out. The accountants looked at the hippie with a great deal of guilt since they hadn't comprehended the calculations or the logic behind the decision. The hippie looked at them and said, "Man, that really sucks! I wish I could have gotten my pot out of my backpack before that actuary jumped out with it."

By Damon Ogden

ADEQUACY OF RATING FACTORS IN EXPORT CREDIT INSURANCE

by Mayur Ankolekar & S Rajesh

This paper was presented at the 3rd Capacity Building Programme for Asian Export Credit Insurers on June 6, 2013 at Singapore

Abstract: Rating factors to be used in the pricing of short-term, buyer credit insurance in the export markets need to be carefully chosen. Whilst there are several options to use rating factors, optimality needs to be weighed in the choice of rating factors. Too many or too few rating factors would not capture the underlying risk. Simultaneously, rating factors need to defer to practicality, internal capacity and rating techniques. The paper specifically focuses on the rating factors associated with counterparty exposure and their translation to premium ratemaking. Criteria for revision in the rating factors based on periodic reviews are deliberated.

[Key words: Credit insurance, Rating factors, Linear variables, Categorical variables, Ratemaking]

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Section I: Premium Pricing Methods

Premium pricing can be approached in a number of ways mostly determined by the situation on hand. An export credit insurer is often guided by competitors, the external environment, developing pricing experience, past loss ratios, reinsurance guidance and internal and external data. Pricing methods can be classified under the following heads:

The pricing process starts with the working out of actuarially sound rates and then proceeds to the commercial decision involving the setting of premium rates.

1. Market rate (going rate) pricing:

A pricing structure modelled exclusively on prevailing market price is termed as market rate pricing. It is widely used to capture or increase market share. Further, an insurer may also choose to tag its rate with the market due to data and methodical constraints in following other pricing procedures. By aligning the price to an exogenous variable viz. the market, the technique runs the disadvantage of ignoring all internal parameters. It is accepted in the industry as a short-term method to achieve immediate results.

2. Target pricing:

As the name indicates a chosen target drives the pricing. It could be a desired level of profit or an appropriate return on the capital required to support the business. Market pricing can turn out to be a special case of target pricing when the chosen target is to capture or enhance market share.

3. Cost-plus pricing:

Rates are computed as expected cost of claims plus a percentage to cover administrative expenses and a profit margin. This approach is often used in experience-rated or burning cost contracts where the premium is expressed as a percentage of claims incurred. The method is similar to target pricing but does not necessarily involve a specific profit target. Under competitive pressure the percentage mark-up can be reduced below what is required for an adequate profit. Only mature credit insurers with enough burning cost data can use this method to price policies.

4. Demand-adjusted pricing:

It is demand-determined and is consistent with maximising profits. Sometimes also referred to as pure economic pricing, the method determines price by balancing supply and demand regardless of the costs of claims and administration or the insurer's need for profit. Economic theory explains the movement in price as well. Price moves up or down in the same direction as demand.

Since risks within a pool are often different, rating variables are identified to distinguish between levels of risk and to quantify the distinctions to arrive at different premium rates.

5. Reinsurance driven pricing:

This is used for very large value policies and in classes where the insurer relies heavily on the technical support of a reinsurer. The price is drawn from reinsurance price and adjusted for the insurer's expenses. This is appropriate when the premium retained by the insurer is a small fraction of the total, usually on a proportional reinsurance basis.

6. Sound rating:

This is the traditional actuarial method widely used in the industry. The sound rate comprises the pure risk rate expected to cover the cost of claims plus loadings for expenses, profit and rate relativities. It is the practice to compute sound rate even if the actual pricing strategy is different. The sound rate is generally the standard against which the probable impact on financials by following other pricing approaches is compared and evaluated.

Section II. Pricing based on Sound Rating Method

This paper emphasises on and discusses the sound rating method in as much as it applies to export credit insurance. The pure risk rate is discussed in the backdrop of the rating factors that generate it. There is a choice of rating factors; not all factors would be used even though they are available, and certain factors even if not easily obtained are non-negotiable. A pure risk premium rate that is actuarially defensible would achieve the balance of constructing the premium components with the relevant rating factors which appropriately represent the underwritten risk.

Pricing algorithm:

The pricing process starts with the working out of actuarially sound rates and then proceeds to the commercial decision involving the setting of premium rates. Sound rates are based on sound insurance principles and take into account the portfolio being written, the changing social, economic, legislative and technological environment. While sound rates are a starting point to make commercial judgements, the actual prices charged may depend also on an insurer's financial and non-financial objectives, market conditions and some client specific

factors. Financial objectives can be further sub-divided into operational goals of maximizing profits, achieving a specific rate of return on capital, maintaining or extending market share and security objectives such as reserves, reinsurance, investments and solvency. Thus, the sound rate depends on pure risk premium, expense and profit loading and rate relativities.

Pure risk premium rate:

The pure risk premium for a risk is the premium required to cover the expected cost of claims for that risk. For a homogeneous pool of N identical risks, we can take an average or statistical expectation and determine the premium P = E{C} / N, where:

P-Pure risk premium for each risk; and

E{C}-Expected cost of claims for the pool

When the size of risks varies within the pool, then we may presume that the expected cost of claims for a risk is directly proportional to the size or exposure. Therefore, pure risk premium in such a case would be expected cost of claims per unit of exposure. That is, the pure risk rate would be expressed as a function of measure of exposure, claim cost per unit of exposure and rating factors.

As for rating factors, the dominant practice is to first set an overall rate and make distinction for individual risks. One-way analysis of loss ratios, relative to existing risk premium rates, is a good tool for monitoring and making minor adjustments. However, if the analysis indicates a need for major changes, then multivariate modelling would be appropriate.

Insurance companies may follow any one of the following kinds of rating discussed in the next section.

Section III. Rating Factors in Premium-setting

Standard portfolio rating:

Standard rates are determined according to a number of specified rating factors. The premium for a particular risk is calculated by classifying the risk according to these factors and looking up the corresponding rate. Such rates are commonly used for portfolios with large numbers of relatively homogeneous risks (e.g. rating schedules for short term export credit policies). A significant underwriting concern in such rates is correct risk classification. Apart from drawing up a fixed rating schedule, insurers may use the underwriting process to accept or reject a risk and may include certain special policy conditions. However, pre-fixed tabular rates are usually left unaltered.

Non-standard rating:

Where less uniformity and smaller volume is observed among risks in a pool, the insurer may want to include a number of important qualitative rating factors and exercise judgement to decide the premium rate commensurate with the nature of the risk. Too many significant features may exist to enumerate in a rating structure. Further, past experience may not allow an adequate accumulation of data for statistical analysis. In all such cases, underwriting guidelines and procedures provide a format to consider many relevant factors and to channel judgement.

The idea is to find a small number of variables that explain as much of the variation between premium as possible.

In some products, an insurer may combine both types of rates such as smaller risks at standard rates and larger risks with some adjustment to standard rates for their exceptional characteristics. Apart from these there is also rating based on large individual policy experience rating.

Insurance relies on pooling to reduce relative variability between risks. If all of the risks in a pool are identical then each should contribute an equal unit of risk to the pool. However, since risks within a pool are often different, rating variables are identified to distinguish between levels of risk and to quantify the distinctions to arrive at different premium rates.

Section IV. Suitability of Rating Factors

Selection of rating factors:

A large number of potential rating factors may affect the risk and therefore the premium. It is seldom practical to use all possible rating factors. Further, too many variables would create an unwieldy rating structure. Therefore, the idea is to find a small number of variables that explain as much of the variation between premium as possible. Constraints pertaining to nature of rating variables help us to narrow down to such rating factors that are not:

- Legally barred
- Socially unacceptable (restricted usage)
- Unreliable, uneconomical to obtain, check or both
- Not amenable to statistical analysis
- Negligible in their effect
- Unacceptable/ incomprehensible to the insuring public

Rating factors can be:

1. Linear (Scalar), where the values of the factors are numerical quantities that are used individually or after grouping them into ranges of values. Examples include premium determined by exposure sought or actual value of the goods exported and premium determined by country grouping and terms of payment.
2. Categorical (Nominal), where the values of the variables are non-numerical which can again be used individually or after grouping them into ranges of values. Examples include an indicator variable (0 for 'No Underwriting' and 1 for 'Acceptance') on an overseas buyer and countries that are prohibited or under sanctions by the exporter country's government policy., .

Both types of rating factors viz. linear and categorical could be simultaneously used to assess and charge for the risk. The linear or scalar factors lead to a differential premium for the underwritten risk while the categorical rating factor would lead to acceptance or rejection of the risk. From an underwriter's standpoint, it is imperative to examine the case/ risk for satisfaction of the categorical rating factor, and only then use one or more linear rating factors.

The above classification of linear and categorical is based on actual values of the rating factors. Yet another similar classification is possibly based on the way the variables are used in the pricing model. Example, ECGC India uses a pricing matrix wherein each premium rate is mapped to a particular country grouping for a specific term of payment both of which are linear variables. Thus, by linking country grouping and terms of payment to a linear value (premium rate), in the pricing model they are turned into linear determinants of the premium. On the other hand, buyer is a categorical variable since premium is chargeable only when ECGC decides to cover the risk on buyer (0 for 'No Underwriting' and 1 for 'Acceptance').

In a Multi-Buyer Exposure policy, exposure sought is a linear variable while exporter's turnover which is by itself a linear variable is turned into a category variable (0 for 'No Underwriting' and 1 for 'Acceptance') in the pricing model, i.e. the policy is offered to an exporter with a minimum turnover or a precondition on eligibility criteria.

In a shipment based policy, premium is computed by applying the premium rate on the actual value of the shipment while

in an exposure based policy the premium rate is applied on the value of exposure sought by the client to calculate premium. Consequently, liability of the corporation is restricted to the pre-defined percentage on shipment value in the former while it is the value of exposure in the latter.

An adequate spread of values is a common requirement. Categorical variables must include enough cases and linear variables must provide sufficient values falling outside the most common region. Especially in case of linear rating factors, if there are only a few values outside the common cluster then there is a risk of losing them as outliers in the regular course of statistical analysis. A classic example would be treatment of infrequent large claims. It is a general practice to reduce the impact of isolated large claims by claim capping so as to make robust conclusions from observations lying within the common region. However, such large claims can be a consequence of natural result of a skewed claim size distribution. Therefore, instead of truncating such claims by capping methods it would be better dealt by using analysis that allow for skewness, and feeding such study into the linear rating factors. Thus sufficient spread that considers extreme risks would allow reasonable conclusions to be drawn on both the strength (significance of impact) and shape (contours of impact) of relationship.

In pure risk pricing of credit insurance, a causal link between the selected rating factor and the expected cost of claims may not always exist or even if it exists, it may not yield a usable rating factor. Therefore, it suffices to establish a strong correlation between rating factor and expected cost. Example, under a Multi-Buyer Exposure based policy dominantly claims paid pertain to a sector fraught with moral hazard thus pointing to a significant positive correlation between the commodity and expected claims though no direct causality can be established. On this statistical basis, "commodity" can be made a categorical rating factor to determine the acceptance of risk.

Section V. Techniques for Analysis of Rating Factors

Selection of rating factors from historical data: The process of selecting suitable rating factors is based on the potential of the rating factor to have an explanatory power in the determination of risk. Three analytical methods are discussed, which in turn lead to a continued assessment of the rating factors employed in premium pricing.

Tabular analysis

Data on claim frequency, average claim size and claim cost per unit of exposure (risk premium) may be collected in a one-way table using the rating variable considered. If the existing rating structure is a good approximation, tabular analysis may include loss ratios as well. This analysis would alleviate distortion in rating relativities pertaining to rating variables, at least in the present structure. If there is significant correlation between different rating variables then one-way tables do not offer a precise indication of rating relativities. The natural solution would be to extend the analysis to multi-way tables that reflect the interaction between the rating variables. Again there may be influence of variables that are not tabulated. Additional variables certainly make correlation effects more visible yet at the same time make interpretation of the tables more difficult. Further, with each addition of more variables, data is divided into smaller and smaller cells depicting random variation that may obscure or even distort the underlying pattern. Among the variables with a significant correlation, the variable that explains much of the risk or causes the correlated variable to change should be the immediate choice as a rating factor to determine premium.

Data Mining

Data mining or tree analysis is a generic name for a variety of proprietary techniques for finding patterns in data and then selecting a rating factor. The method starts with identifying a particular response variable and looks at a large number of potential explanatory variables to pick out the one that is most strongly correlated to the response variable. This search is then repeated to find the next strongest relationship and so on. Example, a response variable may signify whether a claim has been reported and then would look at the data that reveals a high correlation to claims pertaining to a particular product. Next iteration picks claims belonging to that particular scheme as the response variable. Suppose the next search points to high correlation to claims relating to a specific commodity under the scheme considered. The response variable for the next stage would be claims under the scheme relevant to the specific commodity. This iterative process of choosing a response variable and identifying the most correlated variable continues until we arrive at the fundamental rating factor. The method is carried out through data mining packages using non-parametric search algorithms. This offers an advantage to be rather unselective about the explanatory variables used in the initial runs leaving it to initial analyses to show up significant correlations. It is preferable to being too selective and missing some rating factor that was unexpected but important.

Step-wise regression

Also called linear modelling technique it starts with a set of potential rating variables and regress each against the target variable e.g. claim cost, claim frequency or average claim size and select the most significant. Regression is then repeated with further variables until the selected significance is achieved. Each selected variable is dropped to see if it substantially affects the model. After a few iterations, the 'best' model is reached. The process is slower than data mining and does not consider non-additive effects but the output can be used directly as the basis of a rating structure. However, it is desirable to check for non-linear relationships by looking at the residuals.

Inappropriate rating factors may lead to a higher (lower) premium than what should be charged for the risk, and thus lead to loss of business (adverse selection).

Section VI. Conclusion

Rating factors represent the dynamicity of risks. Thus they should be chosen correctly by achieving a mix of relevance and detailing. Periodic review of rating factors is necessary to keep ratemaking scientific and proper. Rating factors' choice is exemplified by statistical theory as described in the paper. Reviews should be acted upon to avoid inadequate charge for certain risks, which in turn invites clients to select against the credit insurer. Inappropriate rating factors may lead to a higher (lower) premium than what should be charged for the risk, and thus lead to loss of business (adverse selection).

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SEMINAR ON BEST PRACTICES IN HEALTH INSURANCE- STRATEGIES AND ACCOUNTABILITY ORGANISED BY PHD CHAMBER: A REPORTAGE

by Vinod Kumar, Head-Research, IAI

About PHD Chamber: PHD Chamber have been working since 1905 as a proactive and dynamic multi-State apex organization at the grass-root level with strong National and International linkages with a focus on North and Central Indian States (including Bihar & Jharkhand in the East) and UT of Chandigarh. PHD Chamber acts as a catalyst in the promotion of industry, trade and entrepreneurship. Health has been an area of focus for all its concerns on humanitarian grounds as also lifestyle related diseases across the entire spectrum of populace world-wide. Identifying Health Insurance as a growing and rapidly developing sector in the Indian market, the chamber take it as an urgent need to share and adapt best practices to be put in place in a most ethical and transparent way. The seminar organised on 17th May 2013 in PWD House, New Delhi was a step towards this direction.

The intention of the Seminar in a nut shell was to bring all the stakeholders (Policyholders, Insurance Companies, Third Party Administrators, Brokers and Hospitals) in the health insurance eco system on the same platform and make them understand and discuss their concerns and issues together. It was an encouraging step taken to see off the air of mistrust and disbelief existing between these parties and paved a way to look forward towards an efficient healthcare delivery system.

The seminar started on a high note with Dr. Sunil Gupta(Director, GIC) and Dr. N. V. Kamat (Directorate of Health Services, Government of Delhi) emphasising the importance of product innovation and revision in the scope of cover under the current health insurance plans to increase its penetration and utilisation. The queries raised by the audience made it quite evident that all stakeholders want changes to be implemented to improve the current state of affairs.

This was followed by a presentation cum discussion session where spearheads from different stakeholders were invited to express their views to suggest a way forward. Institute of Actuaries of India (IAI) was also approached to share its insight in respect of the current situation and how actuaries can also contribute. Ms. Raunak Jha, a senior actuarial consultant and a member of Advisory Group on Health Insurance of IAI, represented actuaries and the institute on this forum.

The session started with Dr. Praneet Kumar's (CEO, BL Kapur Memorial Hospital) presentation which covered challenges faced by hospitals while dealing with health insurance claim settlements. He highlighted the variance in expectations of patients, insurance companies and hospitals and the need to address the principal issue of non-standardisation of processes and documentation in healthcare insurance industry.

This was followed by a presentation from Sanjay Seth (Executive Vice President, Iffco Tokio General Insurance) where the conflicts between business ethics and profitability were discussed. He put emphasis on the importance of building trust with policyholders so that they can rely on insurance companies at the time of distress. The intermediaries' side was covered by S. K. Sethi (Director, Insurance Brokers Association of India) where the discussion covered how a customer's awareness could be increased to help him make more rightful choices.

To take the discussion forward, Raunak Jha explored whether a win-win situation is possible for all the stakeholders in the health insurance industry. She started the discussion with uncovering the expected roles and responsibilities of different stakeholders in the health insurance ecosystem and the roles of actuaries in this paradigm. She discussed the wish-list of each of the stakeholder and the areas where the wishes diverge and conflict. She wrapped her talk by exploring the possible solutions which could be adopted to resolve areas of differences.

Next speaker, Dr. George Thomas (Associate Professor, Insurance Institute of India) appreciated Ms. Jha's presentation and expressed possibility of resolution amongst the different conflicting stakeholders. He discussed how the business focus has changed in the time of increased market competition and its overall impact. The underlying objective of health insurance has been overshadowed with the increased cost of manpower and services.

Dr. Saini (Secretary General, India Medical Association), wrapped up the discussion by stressing the need to look into the huge gap between Government contribution (or subsidy) and private expenditure on healthcare services. He recommended developing a pool where Government and Insurance companies can bring together financial resources

in order to provide appropriate and adequate health insurance solutions to the general population.

The seminar ended on a positive note where the expert panel of speakers made a collective suggestion to take up the discussed pertinent issues and recommendations to the department of financial services under Ministry of Finance and to the Government of Delhi.

THE ACTUARY INDIA – EDITORIAL POLICY
(VER. 2.00/23RD JAN 2011)

Version history;

Ver. 1.00/31 01 2004

Ver. 2.00/23rd Jan. 2011

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

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

B: The Institute recognizes the fact that;

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

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

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

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

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

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

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Skills Required:

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Sr. Actuarial Analysts with 2+ years of relevant experience in Non-Life Insurance **(Job Code: ACTNL01)**

- Work on projects in pricing, reserving and analytics under guidance of senior actuaries
- Develop models using actuarial tools like Emblem, Radar
- Analyze and prepare data using SAS, VBA for actuarial studies

Skills Required:

- Good understanding of Non-Life products and Non-Life Actuarial concepts
- Exposure to modeling with Emblem, Radar preferred
- Exhibit consistent exam progress to work towards actuarial qualification

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HEALTH INSURANCE UPDATE

by Vibha Bagaria & Raunak Jha

Macroeconomic View:

The Indian economy is expected to grow at 5.3% for the current year and a crucial element of sustained growth of India will be better and more healthcare. Fuelled by economic trends of rising costs of treatment and change in lifestyle patterns, Health Insurance has captured significant attention of the government in the recent times. This has also been wired by the fact that the per capita public expenditure figure on health in India is among the lowest in the world. The allocations planned during the Twelfth Plan are also aiming to increase the public expenditures on health from the current level of 1.04 to 1.87 per cent of GDP. But still there is a big gap between the government support and actual costs of borne by individuals to meet their healthcare needs. This has increased the role of Health insurance to provide for this surplus cost of medical treatments and take care of populations' healthcare needs.

Industry Stats:

Now moving to the Insurance Industry statistics; Health insurance is the second largest segment in non-life insurance business which forms close to 24% of the total portfolio. The total health insurance premium for 2012-13(up till February) stands at INR 13,649 crores compared to last year when it was INR 117,52 crores, registering a growth of 16%.

Regulatory Update:

Acknowledging this significant movement in health insurance sphere, Insurance Regulatory Development Authority (IRDA) has also taken steps and initiatives to guard policyholders' interests and increase confidence in the health insurance market. Recent regulation on health insurance by IRDA suggests that companies cannot load individual policyholders at the time of renewal based on past claims history and loading's at the time of renewal will be determined based on the entire portfolio. This will be a welcome step for existing policyholders who fear claiming because of unwanted premium hikes; however it may lead to further premium increase for healthy policyholders and rates of existing business will have to be subsidized with new business. It is expected this regulation may ensure a fair approach being adopted for all policyholders, and a level playing field for all health players. IRDA has also directed industrial players to finalise procedures for fraud detection and control under the GI council, where all insurers have to share fraudulent data. The database would contain details about individuals, hospitals, pharmacies and nursing homes who have defrauded insurers selling health insurance products. This is a great step taken by regulator to instil best practices in health insurance industry and align interests of all stakeholders involved.

Market Update:

The growth in health insurance sector has also stirred insurance companies to look beyond the conventional way of providing for healthcare needs of the policyholders. This has paved the way for product innovation and companies are coming out with products that are trying to meet wider needs of customers in the changing health environment. In a trend setting move for health insurance market, Star Health Insurance has introduced a new policy covering Cardiac Aliments. The move marks a major attitude shift as the policy not only covers pre-existing ailments(which was usually kept out of scope of retail products for initial few years) but also covers one of the most risky threats. Another product launched by Star Health is Star Health Mediclassic Revision which automatically restores the sum insured by 200% when the basic sum insured is fully exhausted during the policy period. Accommodating the increasing needs of customers, Cholamandalam.has launched a product that pays for outpatient department treatment procedures, dental expenses and doctors' consultation fees, besides the regular hospitalisation expenses. Reliance Life had also launched a combined mediclaim and critical care cover, 'Reliance Life Easy Care Fixed Benefit Plan' which is a fixed benefit plan with rates guaranteed for a period of 5 years.

To curtail losses in group health insurance sector with the combined loss ratio above 120%, public sector non-life companies are set to revise health insurance rates by 20-25% for their current renewal business.

Newer and efficient options of distributing health insurance products are being explored to increase the health insurance penetration. Encouraging this IRDA has also decided to allow standalone health insurance companies to avail the services of agents and corporate agents of other life or non-life insurance companies to distribute their products.

Religare and HDFC Life are the two new players who have become active in Health insurance space and have launched comprehensive medical reimbursement health plans to spread their wings in the market.

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Success is the good fortune that comes from aspiration, desperation, perspiration and inspiration.

Evan Esar

DESMOND SMITH
Q&A: Duty calls

Sarah Bennett in conversation with Desmond Smith, immediate past-president of the International Actuarial Association.

(This interview is reprinted with kind permission of The Actuary, UK)

Desmond Smith was elected as the first South African president of the International Actuarial Association (IAA) in January 2012 and, following a one-year tenure, has now automatically commenced his duties as the immediate past-president. In this interview, he reflects upon his time as president, and discusses, among other things, global challenges facing the profession, the IAA's response, and the rainbow nation dream. He was born in Port Elizabeth, South Africa, on 21 June 1947. He obtained his BSc degree (cum laude) at the University of Stellenbosch. In 1973, he qualified as a Fellow of the Institute of Actuaries (London) and, in 1992, he completed an international senior management programme at Harvard Business School. He is chairman of RGA (South Africa) and of financial services group Sanlam. He also holds several company directorships.

Your role as IAA president must involve a substantial amount of travel?

I have travelled quite a bit over the past year. The IAA has council and committee meetings twice a year, which we try to schedule to coincide with invitations to special events from our member associations. During 2012 we met in Los Angeles and then in Nassau in the Bahamas, which coincided with the annual convention of the Caribbean Actuarial Association, providing an opportunity to rub shoulders with actuaries from all over the world. The first meetings of 2013 will be held in The Hague to celebrate the 125th anniversary of the IAA's association with the Dutch. I have also attended events in Kenya, India, Turkey and Hong Kong. In June, I was fortunate to be invited to a meeting of the International Association of Insurance Supervisors (IAIS) in the Cayman Islands to sign a memorandum of understanding between the IAA and the IAIS.

"I believe I have a duty to help build the profession for future generations. Equally, I believe I have a broader duty to society to make it a better place."

How did you get involved in the IAA?

It was a natural development really. I had involved myself in the Actuarial Society of South Africa (ASSA) as early as 1974, having qualified as an FIA in 1973. I became president of ASSA in 1996 and thought I had done my bit. I happened to be the ASSA representative when it was decided to reconstitute the IAA into its current form. When ASSA put forward a pitch to host the 2010 International Congress of Actuaries, I was 'recycled' and asked to chair the bid committee and, ultimately, the organising committee. And so my interest in the IAA was renewed. It was somewhat of a shock when I was approached to make myself available to become president – I believe my initial response was "You cannot be serious!"

What is the greatest challenge facing the actuarial profession globally?

Clearly, there are many challenges facing the profession, and the IAA has a number of strategic objectives to address these. The first is to 'identify, establish and maintain relationships with key supranational audiences and provide them with actuarial input to improve the soundness of decisions being made on important issues with a global impact'. This summarises our response to what is a very significant challenge for the profession– to remain relevant and establish ourselves as a necessary resource that is regarded as essential in debating global issues and formulating policy in the financial field.

What one skill would you say actuaries need to compete successfully in an increasingly global and mobile jobs market?

An actuary would, by definition, have the necessary technical skills and know-how. I believe it is also essential to have good interpersonal and communication skills to be successful in business or any other career. Even if these do not come naturally, they can be acquired. I have spent hours in front of TV cameras with a very critical coach learning presentation skills. A consultation with an image consultant to coordinate a 'business wardrobe' was, regrettably, the beginning of a love of clothes and shopping!

How has your experience in insurance and reinsurance influenced your view of the profession?

I can honestly say that I am invariably impressed by colleagues that I interact with – their integrity, professionalism, commitment and, in particular, their ability to identify and analyse the relevant issues in a given situation and come up with solutions. Becoming involved in industries and areas of activity beyond the traditional roles that actuaries are associated with has made me more aware of the value the profession has to add. A good example is enterprise risk management, where I believe we will play a significant role in future. The message to actuaries is that there are huge opportunities out there.

What is your attitude towards service to the profession?

When I qualified as an FIA I was fortunate to receive my certificate at Staple Inn. The theme of the address on that occasion was the famous quote from Sir Francis Bacon: "I hold every man a debtor unto his profession ..." I believe this quote is also in the renowned stained glass at Staple Inn. This made an enormous impact on me. Also, growing up and living in South Africa, where for decades many of my fellow South Africans did not have the opportunities I have had, I soon realised how privileged I was. I believe that I have a duty to the profession, which has opened doors in life for me, to help build it for future generations. Equally, I believe that I have a broader duty to society to make it a better place for all South Africans and, in particular, for younger and future generations.

What was your first job?

I joined Sanlam in 1968 after completing a BSc at Stellenbosch University. This was before computers had taken the 'schlep' out of actuarial work. So I spent close to a year calculating surrender and paid up values – not very inspiring!

What does inspire you?

I am inspired by seeing people achieve and realise their potential. I am also inspired by what we have achieved as a South African nation. I am, however, acutely aware that we cannot drop the ball at this stage. We have an obligation to continue to strive to achieve the dream of the rainbow nation!

How do you organise your time to be effective in all your roles?

I am fortunate that I am semi-retired, although my wife may not agree! I retired from executive management in 2005 and have since been involved in a number of boards as a non-executive.

How do you spend your leisure time?

I am somewhat of a sport fanatic. I must confess that I am a Liverpool supporter, which has not been easy of late! I have played golf for going on 60 years, but, while I used to be able to hold my own, age eventually takes its toll!

Have you lived or worked outside South Africa?

My wife and I lived in the UK for just under a year in 1972/73, when I was given a sabbatical by my employer, Sanlam, to study full time and complete my fellowship. We then did what so many folk from the 'colonies' did in those days – bought a car and a tent and toured round the UK and Europe for some nine months.

What are the most important things you have learnt since receiving your FIA certificate at Staple Inn almost 40 years ago?

Humility. Whenever one takes oneself too seriously and tends towards arrogance and cockiness, something will come along to remind you of who and what you really are! Also the fact that we have a duty to leave the world a better place when we pass on.

Can you offer any advice to people entering the profession?

The same as I gave to some high school students I met last year: "You will be entering a profession with a proud and distinguished past and it will be your responsibility to ensure that its future remains that way. You will be opening doors for yourself that you never dreamt of, and gaining access to wonderful opportunities. I am sure you have the ability to qualify as a fellow, but it will take hard work and dedication to do so. If you feel you are up to it, welcome!"

OBITUARY

Mr. R. K. Daruwalla
1921-2013

Mr. Rusi Kaikhushroo Daruwalla passed away on 8 May 2013 at the age of 92 after a glorious career spanning over seven decades.

Mr. Daruwalla was born in a middle class Parsi family in Hyderabad. He graduated in Commerce from Sydneham College, Mumbai in 1943. After graduation, he joined New India Assurance Company Limited in clerical capacity and by stint of hard work rose in gradual steps to become the Manager of New India Assurance Company Limited in 1961.

Mr. Daruwalla became Fellow of Institute of Actuaries, England in 1958. When general insurance business was nationalized in 1973, he was assigned to General Insurance Corporation (GIC), as Managing Director. He became the Chairman of GIC in 1979 and retired in 1981.

On retirement from GIC, he joined Thanawala Consultancy Services as a Partner and continued his association with the firm till 2001. Mr. Daruwalla served on the Managing Committee of Actuarial Society of India for many years in 1980s and served as its President in the years 1982-1984.

Mr. Daruwalla enjoyed good health all through his life and succumbed to respiratory problem in May 2013. Mr. Daruwalla is survived by his daughter, Kamal Gagrat, son-in-law Bomi Gagrat and two grandchildren.

May 22, 2013

NOTICE FOR SUBSCRIPTION FEES FOR THE FINANCIAL YEAR 2013-14

Note: It may please be noted that subscription can only be paid ONLINE only by active members (i.e. members who had paid subscription for the year 2012-13).

A) **Due date:** 1st April 2013.

(Note: online subscription payment option will get activated in your members' login ID from 1st April 2013)

B) **The subscription rates:** with effect from 1st April 2013:

Class of Membership	Fees in Indian Rupees (INRs)
Fellows and Affiliates	5,000
Associates	1,500
Students	750
For Fellows, Affiliates and Associates above age 60 as on 1st April, 2013, and not gainfully employed in profession or practice or medically unfit to be gainfully employed in profession or practice.	750
Life membership (optional) who are more than 60 years as on 1st April, 2013	Ten times the normal annual subscription as mentioned above.
Members more than 75 years of age as at 1st April, 2013	NO annual subscription
Change of Category within a subscription year	Will attract full subscription fees for new category

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

C) **Failure to make payment:** The payment should be made online on or before 30th June 2013 failing which membership will lapse resulting in to removal of name from the register of members.

D) **Mode of payment:** Please Refer **Annexure 1**

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

i) Members whose subscription is outstanding only for year 2013-14

If the request for reinstatement is received within tl September) of his/her ceasing to be a member (af annual subscription plus a penalty of 25% thereon,

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

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

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

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

F) **Help:** Kindly contact Ms. Prajakta Bhosle at actsoc@actuariesindia.org or at 022 -67843302 / 67843333 for further details on reinstatement of membership or any other matter relating to annual subscription.

Annexure 1 Mode of Payment:

1. Online Payment:

The Procedure for online payment is as under:

i) Visit to IAI website at (www.actuariesindia.org) and login in member login with your login id and password. If you are logging in for the first time, you can login by providing your membership number (preceded by IAI-) as login id and your date of birth in DDMMYYYY format as password. For example, if your membership number is 289 and date of birth is 6th May, 1980, then your login id will be IAI-289 and password will be 06051980. If you do not remember your membership id, then please contact Ms. Prajakta Bhosle at actsoc@actuariesindia.org.

ii) If you are logging in for the first time, the system will prompt for subscription payment and afterwards will ask you to change your password, upload your photograph and update your details. If you are logging in for the second or subsequent time, it will prompt you for payment of subscription and show you details of subscription fees payable.

iii) You can opt to make your payment via Debit Card, Credit Card, Internet Banking or IMPS.

iv) Once the payment is successful, you will get the acknowledgment receipt on your registered email ID and your subscription due date will be updated. You will be able to view the updated due date immediately under your Profile Tab & receipt can be downloaded from transaction detail tab.

v) In case the payment has failed for some reason, please contact IT team at nitin@actuariesindia.org for resolving the problem.

vi) In case the transaction fails after the amount is debited to the card/bank account, the amount will be refunded to the card or bank account normally in 8-10 working days. In case of non refund kindly contact ravi@actuariesindia.org .

Note: It may please be noted that subscription can be paid ONLINE only by active members (i.e. members who had paid subscription for the year 2012-13).

2. DD or Pay Order :

The annual subscription may be paid by Demand Draft / Pay Order drawn in favour of "Institute of Actuaries of India", payable at Mumbai. Please indicate your full name, Class of membership (Fellow, Affiliate, Associate or Student) & "Subscription for the year (mention year)" at the back side of DD/Pay Order and on **Renewal Form**. Please ensure that payment by Demand Draft / Pay Order is honoured by your bank as dishonour may require you to pay penalty charges of ₹ 500/-.

We would like to inform you that any payment done by cash or consolidated payments would not be accepted.

3. Wire-transfer (for members residing outside India)

Procedure for making payment through Wire-transfer in Indian Rupees (INR) is as under:

Please transfer USD ____ to account number 0011407376 of AXIS Bank Limited

Mumbai (AXISINBB002) with JP Morgan Chase Bank USA (CHASUS33) for onward

credit to account number 911020048384303 of Institute of Actuaries of India maintained with AXIS Bank Limited P.M. Road, Fort Mumbai branch (AXISINBB004)

Please transfer EUR ____ to account number 6231605392 of AXIS Bank Limited Mumbai (AXISINBB002) with JP Morgan Chase Bank FRANKFURT (CHASDEFX) for onward credit to account number _____ of _____ maintained with AXIS Bank Limited P.M. Road, Fort Mumbai branch (AXISINBB004)

Please transfer GBP ____ to account number 11131588 of AXIS Bank Limited Mumbai (AXISINBB002) with JP Morgan Chase Bank London (CHASGB2L) for onward credit to account number _____ of _____ maintained with AXIS Bank Limited P.M. Road, Fort Mumbai branch (AXISINBB004)

Please transfer AED ____ to account number 0195510382 of AXIS Bank Limited Mumbai (AXISINBB002) with MASRQ BANK (BOMLAEAD) for onward credit to account number _____ of _____ maintained with AXIS Bank Limited P.M. Road, Fort Mumbai branch (AXISINBB004)

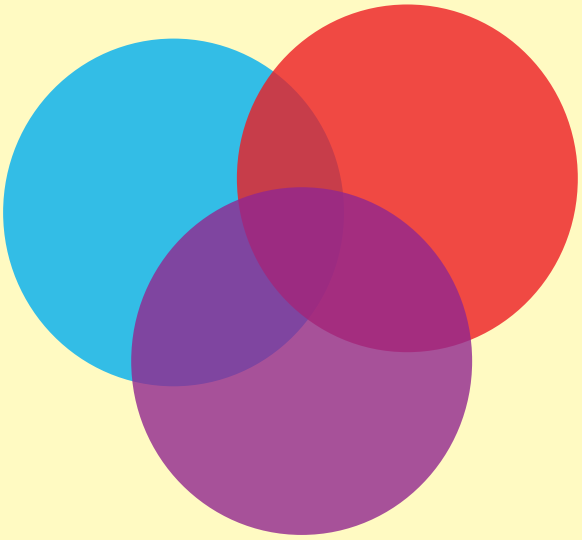
Please transfer SGD ____ to account number 501409379001 of AXIS Bank Limited Mumbai (AXISINBB002) with OCBCSGSG for onward credit to account number _____ of _____ maintained with AXIS Bank Limited P.M. Road, Fort Mumbai branch (AXISINBB004)

Note:

1) For payment made through wire transfer members need to pay additional Rs.500/- as Bank Commission and Wire Transfer charges.

2) After the payment has been made through wire transfer, members are requested to inform Mr. Ravi Mastekar (Accounts) at ravi@actuariesindia.org under copy to Ms, Prajakta Bhosle (Subscription) at actsoc@actuariesindia.org for confirming the receipt. In case the members do not send any communication to IAI in this regard, the Institute shall not be responsible for the payment made and amount shall be kept in suspect A/c as a result of which members will remain Inactive in the database.

(Gururaj Nayak)
Head - Operations



Three Sentences For Getting Success :

a) Know More Than Other

b) Work More Than Other

c) Expect Less Than Other

William Shakesphere

FROM THE DESK OF CHAIRPERSON -

ADVISORY GROUP ON EXAMINATION

D. Sai Srinivas

Saisrinivas.D@bajajallianz.co.in

It is my pleasure to share with you some thoughts around the activities of the examination advisory group as well as the plans it has for future. The main responsibility of this advisory group is quite obvious i.e advising the Education Committee on various matters related to examinations. However, the routine functions of this group are not so obvious. A lot of effort is required in conducting examinations smoothly and declaring results within a reasonable time.

We are putting in our best efforts to ensure that question papers and evaluation process are of high standards. This is a continuous activity and requires involvement of all members. I look forward to the contribution from everybody to ensure that high standards are maintained and where possible improve the standards.

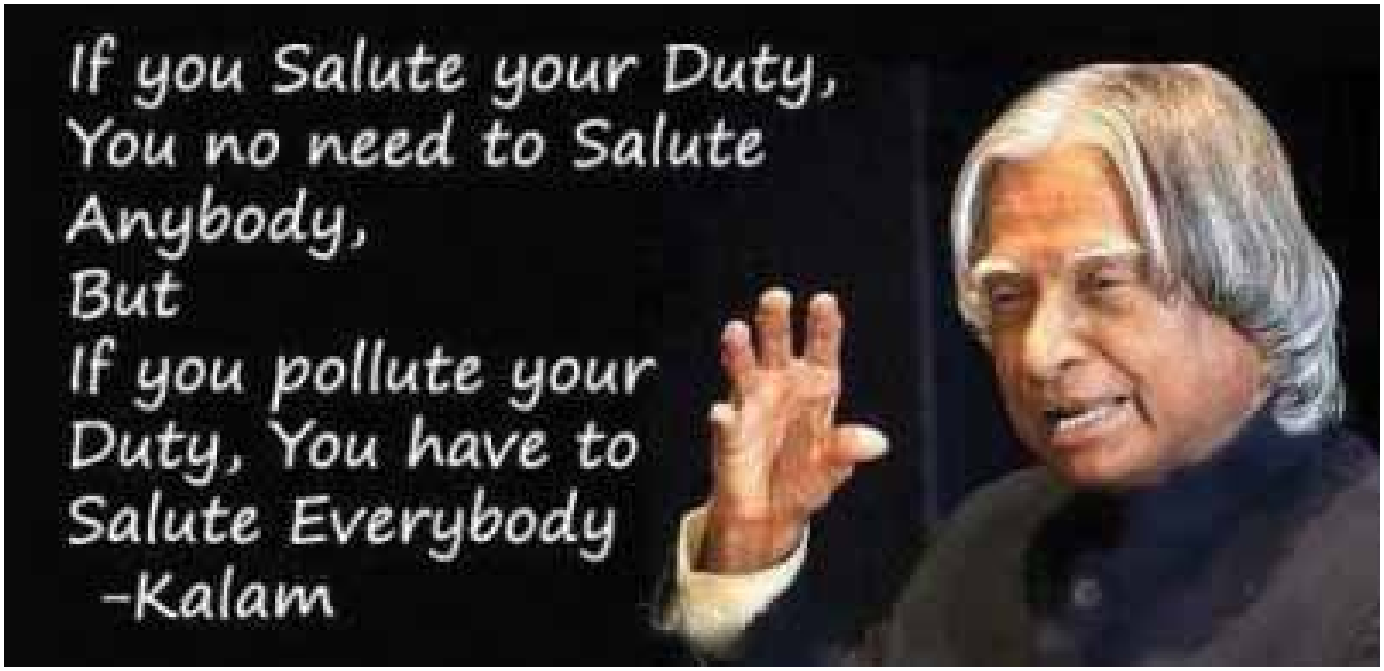
Our main focus is to declare results of all subjects together and within a reasonable time. I am thankful to all my predecessors who took many initiatives in achieving this. We are continuing the same and trying to improve the process from to time. We will remain focussed to declare results within a reasonable time.

Another important focus area is arranging an appropriate Examination Centre. While all efforts are made to ensure the smooth conduct of examinations, it has been brought to our notice that the infrastructure support is not up to the mark in some of our examination centres. We are reviewing the same and shall initiate some steps for the future diets.

Another activity where we encounter difficulties is in the area of providing counselling support to the candidates who could not pass examinations. We recognize that this is an important area from a student's perspective and especially for those students who are repeatedly failing an exam. There are many students who are left with one or two exams to qualify for fellowship and are seeking assistance in this regard. We have already initiated counselling in some subjects. We have a serious constraint in terms of resources which is causing difficulties to conduct these counselling sessions. However, we will continue to put in best efforts to provide counselling, wherever possible.

We are trying to create a pool of examiners and I request all our fellow members to join this pool and contribute to the examination related activities. This will help reducing the burden on few fellow members who are contributing regularly to the examination activity. I am grateful to all those members, both Examiners and markers, who are contributing to the examination activity and I sincerely request their continued support.

Our vision is to create one of the best examination systems in terms of quality and process. It is not possible to achieve this without the involvement of all our members. I recall the famous words of Francis Bacon who once said "I hold every man is a debtor to his profession". I appeal to each and every member of our profession to join hands with us in achieving our vision.



The experience stays with you

Academic requirements:
55% aggregate at degree level
90% Maths in class X and XII
80% English in class X and XII

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Business Standard
6th June 2013

INSURANCE INDUSTRY SEES RISE IN PROFITABILITY

After reeling under the impact of macro-economic situations, low penetration, the sector is finally seeing good results.

The insurance industry, that has been reeling under the impact of macro-economic situations and low penetration, has a reason to cheer. The insurance companies have seen a higher profit margin for financial year 2012-13, as compared to the previous fiscal. Life insurance industry, in particular, which has seen a slowdown in new business premium collection, has also fared better in terms of profitability. The largest player in the private life insurance industry ICICI Prudential Life Insurance, the life insurance arm of ICICI Bank posted a 8.09% rise in profit after tax for the full year ended March 2013. The private life insurer posted net profit of Rs 1,496 crore compared to Rs 1,384 crore for full year ended March 2012.

In terms of premiums, ICICI Life's annualized premium equivalent (APE) increased by 13% to Rs 3,532 crore in FY2013 from Rs 3,118 crore in FY2012. The assets under management at March 31, 2013 were Rs 74,164 crore (US$ 13.7 billion).

The general insurance arm of ICICI Bank has also performed better than financial year 2011-12. The gross premium income of ICICI Lombard increased by 19.8% to Rs 6,420 crore in FY13 from Rs 5,358 crore in FY12. ICICI Lombard General Insurance posted a net profit of Rs 306 crore for year ended March 2013 compared to a loss of Rs 416 crore for FY2012.

The commercial third party motor pool was dismantled from April 2012 and a declined risk pool was put in place. This has led to reduction in losses for general insurers, who had made high provisioning for this segment. With an increase in premiums, it is expected that this loss will be brought down further.

SBI Life Insurance posted profit of Rs 622 crore for financial year 2012-13, an increase of 12% over the previous fiscal. Atanu Sen, MD & CEO, SBI Life Insurance had said that despite the continued tough environment, they were able to change the business mix and sustain a profitable growth primarily due to their brand strength, multi distribution model and high productivity of our retail channels.

Bancassurance has been a major driver of growth for the insurance companies. Insurers, backed by bank partners have seen not just higher premiums, but also an increase in profit margins. IDBI Federal Life Insurance, which achieved break-even in its fifth year operation in FY2012-13 has about 74% of its premium coming from its bank channel.

Another leading life insurer HDFC Life has seen a 66.5% growth in net profit and posted net profit of Rs 451 crore in financial year 2012-13. The company recorded 16% positive growth in new business premium income (Individual business) and 11% growth in total premium income.

However, profitability has not just been restricted to insurers with bank partners. Bajaj Allianz General Insurance, for example, saw a 138.6% growth in net profit in FY13 over previous fiscal. Further, Max Life Insurance reported a net profit of Rs 423.4 crore for the financial year 2012-13.

Rajesh Sud, CEO & Managing Director, Max Life Insurance had said, «Our continued focus on fundamentals and efforts to differentiate in the market place based on our advice based sales, diversified distribution architecture and comprehensive product portfolio helped us achieve a profitable growth in a tough year for the industry.»

Public general insurers have also seen a significant rise in profitability, apart from a double digit increase in annual premium growth. New India Assurance posted profit after tax (PAT) of Rs 843.6 crore for financial year 2012-13, compared to net profit of Rs 179.3 crore posted in FY12. The company collected total premiums of Rs 10,038 crore in India, recording a growth rate of 18%.

Similarly, private general insurer HDFC ERGO General Insurance posted net profit of Rs 154.49 crore for the year ended March 31, 2013 as compared to a net loss of Rs 39.69 crore posted in the previous fiscal.

While the general insurance industry expects the growth momentum to continue, life insurers expect some challenges in this fiscal too. Max Life›s Sud explained that while they would see growth in the first half of the current financial year, in the second half insurers including them would have to manage the regulatory changes.

Adding to this view, Amitabh Chaudhry, MD & CEO, HDFC Life had said, "This year will continue to be a tough year for the industry. We have delivered against the set targets, but we would not look to build the top-line at any cost.»

As per the monthly data from Insurance Regulatory and Development Authority (Irda), life insurers collected total premiums of Rs 4965.37 crore for April, seeing a 0.57% rise over same period last year. General insurers, on the other hand, saw a 22.01% rise in premium collection for April 2013. General insurance companies collected premiums of Rs 7890.40 crore for the period, as against Rs 6467 crore in April 2013.

http://www.business-standard.com/article/companies/insurance-industry-sees-rise-in-profitability-113060500588_1.html

NOTICE

"Please note change in working hours of Institute of Actuaries of India from 10.00 am to 6.00 pm w.e.f. 1st June 2013"

TIMES OF INDIA
28TH MAY 2013

Financially Sound

Sunil Sharma, chief actuary with Kotak Life Insurance & chairperson of advisory group on communication of Institute of Actuaries of India (IAI), talks to Tirna Ray on why an inherent interest in mathematics is important if one wants to pursue a career in actuarial science

Why has actuarial science, as a discipline, emerged in recent times?

Until the denationalisation of the insurance Industry, LIC was the only employer for actuaries. Prior to denationalisation, actuarial profession was not even known to the general public. It was only after the industry was opened in 2000 to private participation that the number of insurance companies operating in India increased. This has created a surge in the demand for actuaries in the country. Currently, there are 24 life insurance companies, 27 general insurance companies and eight major re-insurers operating in India. Further, there are many KPO/ analytical centres set up by various global insurers and actuarial consultants, which in turn increase the demand for actuaries in the Indian insurance market.

In case a class X or class XII student wants to pursue this field, how does s/ he identify if s/he has the aptitude for it?

One needs to have an interest in mathematics if s/he wants to pursue an actuarial career. There is a vast difference between getting 90% marks in board exams and having an interest in mathematics. You should possess problem-solving skills to get into actuaries. You need to be hard working and dedicated with lot of concentration skills. Institute of Actuaries of India has started an entrance test to become the member of the Indian actuarial profession and to become eligible to write actuarial examinations.

There are many KPO/analytical centres set up by various global insurers and actuarial consultants, which in turn increase the demand for actuanes in the Indian insurance market.

What combination should one take in class X and Xn, to pursue actuarial science?

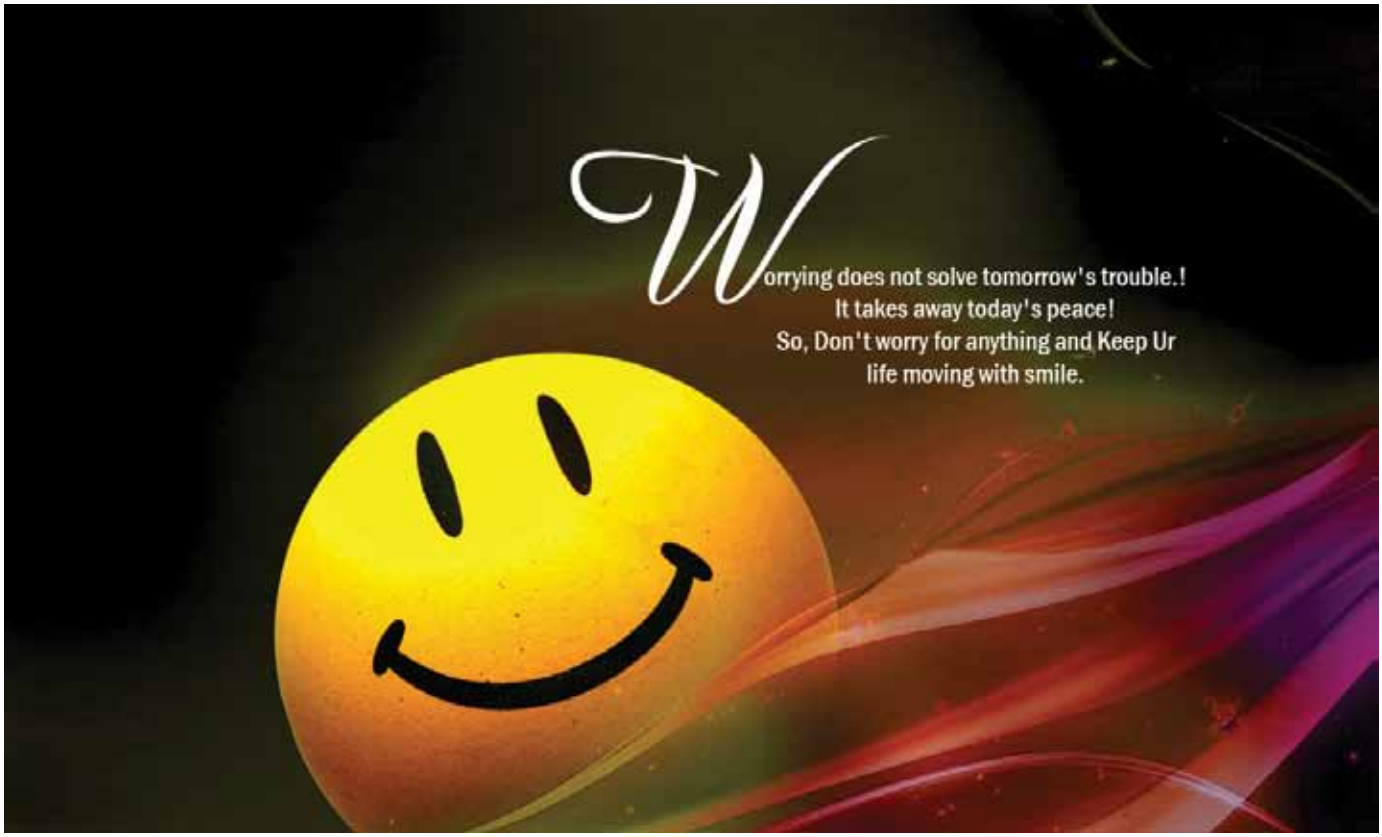
Higher level mathematics is a must to be successful in actuarial science. Depending upon the courses available in school, you can choose economics, statistics, finance and business studies along with mathematics.

What are the eligibility criteria to pursue this field in India?

To become a member of the Institute of Actuaries of India, one has to clear the Actuarial Common Entrance Test (ACET). The Institute of actuaries of India conducts ACET twice in a year — in June and December. Interested candidates can visit the IAI website to find more details for submission of application for ACET. For more, visit the institute portal http://actuariesindia.org

Which are the top five institutes for actuarial science in your opinion in India?

Some of the universities that have actuarial science as a pan of their curriculum are Amity University, Narsee Monjee Institute of Management Studies, DS Actuarial Education. Indian Statistical Institute, Bishop Heber College, Institute of Insurance and Risk management. However, students must note that the course curriculum varies from one institution to another. Further, studying from such institutes help students to acquire actuarial subject knowledge, although there is no exemption from the main actuarial professional examinations.



THE AFFORDABLE CARE ACT (COMPREHENSIVE HEALTH INSURANCE REFORMS) BECOMES LAW IN THE UNITED STATES

by Rajendra P Sharma

The Affordable Care Act was passed by Congress and then signed into law by the President on March 23, 2010. The law has been controversial and was challenged in courts by its opposition on constitutional grounds. On June 28, 2012 the law went into effect after the Supreme Court rendered a final decision to uphold the health care law.

Key Features of the Law

The law puts in place comprehensive health insurance reforms that will roll out over four years and beyond. The most important parts of the law are broken into five groups: Rights and Protections, Insurance Choices, Insurance Costs, 65 or Older, and Employers.

1. **Rights and Protections provided the Act**:

- Most health insurance plans and issuers must provide an easy-to-understand summary about a health plan's benefits and coverage.
- State Consumer Assistance Programs help individuals file complaints and appeals, enroll in health coverage, and learn about their rights and responsibilities as health care consumers.
- The "Patient's Bill of Rights" outlines consumer protections and gives the knowledge needed to make informed health plan choices.
- The Act ensures your right to appeal health insurance plan decisions–to ask that your plan reconsider its decision to deny payment for a service or treatment. If your plan still denies payment after considering your appeal, the law permits you to have an independent review organization decide whether to uphold or overturn the plan's decision. This final check is often referred to as an "external review."
- Insurance companies can no longer limit or deny benefits to children under age 19 due to a pre-existing health condition.
- Individuals have the right to choose the doctor the Health Insurer's network or seek emergency care at a hospital outside of your health plan's network.
- You have the right to keep your "grandfathered" health plan if you were covered before the health care law was enacted. Grandfathered plans do not have to provide some of the rights and protections under the Affordable Care Act.
- Insurance companies can no longer cancel your coverage just because you made an honest mistake on your application.

2. **Insurance Choices:**

- Starting next year, the Affordable Care Act guarantees that all Americans – regardless of their health status or pre-existing conditions – will have access to quality, affordable coverage. Open enrollment begins on October 1. The Health Insurance Marketplace will offer a choice of plans. Coverage begins on January 1, 2014.
- The Pre-Existing Condition Insurance Plan (PCIP) makes health coverage is available to all US citizens and legal residents, who have been denied health insurance because of a pre-existing condition, and have been uninsured for at least six months. The PCIP program covers a broad range of health benefits: primary and specialty care, hospital care, prescription drugs, and other benefits even to treat a pre-existing condition. There is no higher premium just because of medical condition. Eligibility is not based on income. Premiums vary by state.
- Young Adult Coverage: Before the health care law, most health plans that cover children must make coverage available to children up to age 26. By allowing children to stay on a parent's plan, the law makes it easier and more affordable for young adults to get health insurance coverage. Your children can join or remain on your plan even if they are married, not living with you, not financially dependent on you and eligible to enroll in their employer's plan.
- The Health Insurance Marketplace is designed to make buying health coverage easier and more affordable. Starting in 2014, the Marketplace will allow individuals and small businesses to compare health plans, get answers to questions, find out if they are eligible for tax credits for private insurance or health programs like the Children's Health Insurance Program (CHIP), and enroll in a health plan that meets their needs.
- The Act creates a new type of non-profit health insurer, called a Consumer Operated and Oriented Plan (CO-OP). These insurers are run by their customers. CO-OPs are meant to offer consumer-friendly, affordable health insurance options to individuals and small businesses. The federal government is offering loans to non-profit organizations to help establish CO-OPs.

3. **Insurance Costs:**

- The Affordable Care Act requires insurance companies to spend premium dollars primarily on health care. It requires that insurers selling policies to individuals or small groups to spend at least 80% and those selling to large groups (usually 50 or more employees) must spend at least 85% of premiums on care and quality improvement. This rule does not apply to employers who operate what is called a self-insured plan. The health insurance company must report yearly to the Secretary of Health and Human Services on the share of premium dollars spent

on health care services and quality improvement and if the share is less than required percentages, rebates are to be paid through refund or reduction in premiums.

- The Act prohibits health plans from putting a lifetime dollar limit on most benefits you receive. The law also restricts and phases out the annual dollar limits a health plan can place on most of your benefits — and does away with these limits entirely in 2014.
- The Act creates a Rate Review program to help protect individuals and small businesses from unreasonable health insurance rate increases. Health insurers must justify any rate increase of 10% or more before the increase takes effect.

4. **65 or Older:**

- The Affordable Care Act offers eligible seniors participating in the original Medicare, a range of preventive services with no cost-sharing.
- The Act includes benefits to make Medicare prescription drug coverage (Part D) more affordable. It does this by gradually closing the gap in drug coverage known as the "Donut Hole."
- Under the Act, the life of the Medicare Trust Fund will be extended to at least 2024 as a result of reducing waste, fraud, and abuse, and slowing cost growth in Medicare. This is expected to provide future cost savings on premiums and co-insurance.

5. **Employers:**

- Tax credits and new programs are now available to small businesses with intent to make care more affordable for employers, employees, and early retirees.
- If an employer has fewer than 25 employees and provide health insurance, a tax credit of up to 35% (up to 25% for non-profit organizations) to offset the cost of insurance for the employer. This credit will increase in 2014 to 50% (35% for non-profits). This will make the cost of providing insurance much lower.
- If your company provides health insurance to retirees ages 55 to 64 (within 10 years prior to Medicare eligibility at age 65), it may be eligible for financial help through the Early Retiree Reinsurance Program.

Readers involved with health insurance field may wish to read the full text of Affordable Care Act using following links:

- The Affordable Care Act and Reconciliation Act http://housedocs.house.gov/energycommerce/ppacacon.pdf
- The Affordable Care Act http://www.healthcare.gov/law/full/patient-protection.pdf
- Reconciliation Act http://www.healthcare.gov/law/full/patient-protection.pdf

The first link listed above contains the full text of the Affordable Care Act and the Health Care and Education Reconciliation Act of 2010 in one document. It is not official and is provided for your convenience. The second and third links contain the official certified full text of the law.

About the Author

rpsharma0617@yahoo.com

Puzzle No 193:
An army four km long steadily advances four km while a dispatch rider gallops from the rear to the front, delivers a dispatch to the Commanding General, and gallops back to the rear. How far has the rider travelled?

Puzzle No 194:
Find the quadrilateral which the shortest perimeter which meets these conditions:

a. The sides are of different integral lengths
b. The area is a perfect square
c. Two of the angles are right angles.

Solutions to Puzzles:

Puzzle No 189:
A round peg will fill a maximum of π / 4 = 78.5% of a square hole. A square peg in a whole of radius r has a maximum measurement of √2r × √2r and so will fill a maximum of 2 / π = 63.7%

Hence a round peg in a square hole is the better fit.

Puzzle No 190:
The possible values for (x, y) are (19, 91) and (59, 91)

Correct solutions were received from:

Puzzle No 189:

1. K. S. Pujari
2. Shilpi Jain
3. Kailash Mittal
4. Mufaddal Trunkwala
5. Raju Mishra
6. Anupama Katariya
7. Siddhi Wadhwa
8. Vishvesh Kumar
9. Madhav Mittal
10. Graham Lyons
11. Debasis Khamrai
12. Aswin Pugalia
13. Puja Rege
14. Harshul Taneja
15. Sourav Mahapatra

Puzzle No 190:

1. K. S. Pujari
2. Mufaddal Trunkwala
3. Raju Mishra
4. V. V. N. Kiran K Sarma
5. Graham Lyons
6. Debasis Khamrai
7. Harshul Taneja

shilpa_vm@hotmail.com

SUDOKU

puzzle No. 11 for the month of June 2013

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

HARD

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

Many Happy Returns of the day

the Actuary India wishes many more years of healthy life to the following fellow members whose Birthday fall in **June 2013**

P A BALASUBRAMANIAN
R KANNAN
DIONYS EMIL BOEKE
LIYAQUAT KHAN
K SUBRAHMANYAM
RICHARD WALTER LEISER BANKS

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

Solution of Sudoku Puzzle No.10 published in the Month of May 2013

SOLUTION

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

INVITATION

TWO DAYS SEMINAR

ON

CURRENT ISSUES IN HEALTH CARE INSURANCE

on 11th & 12th July, 2013 in

Hotel Orchid at Vile Parle East, Mumbai

Background: Health Care Insurance has grown rapidly in last few years in India. The high growth rate has lot of opportunities and some challenges as well. Institute of Actuaries of India is planning a two days session on "Current Issues in Health Care Insurance" to discuss and reflect on these opportunities and challenges. The speakers and panelist will be a mix of actuarial and non-actuarial professionals with vast experience in Health Insurance domain.

The seminar will include coverage of the following:

- Fraud management initiatives at the industry level - outcomes, challenges, way forward
- Group health insurance experience - recent trends
- Moratorium underwriting
- Micro Insurance
- International Health Insurance Market
- SWOT analysis of Indian health insurance industry
- Flexibility in product design – learning from the international product market
- Grievances in health insurance

Speakers: The speakers are eminent leaders from the Health Industry.

Who should attend: Given the nature of the issues being discussed and the diverse profiles of the speakers, it is open to all professionals associated with the Health Insurance industry.

M. Karunanidhi
President, IAI

Biresh Giri
Chair – Advisory Group on Health Care Insurance

Program

Speakers Profile

- Registration Fees : 7500/-
- Dress Code: Business Casual
- CPD Credit for IAI Members: 6 hrs (As per APS 9)
- Point of Contact for any query: Quintus Mendonca (quintus@actuariesindia.org)

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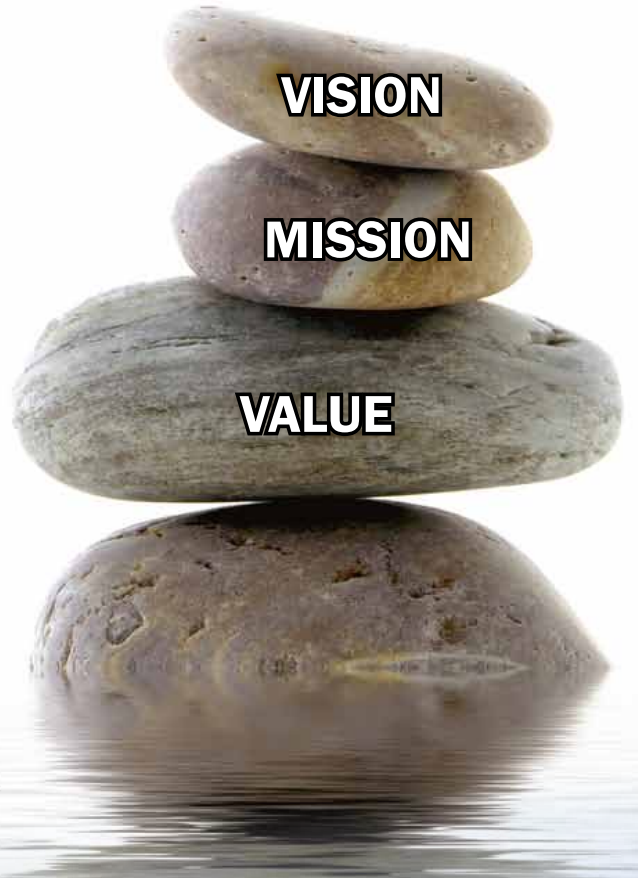
Institute of Actuaries of India

VISION, MISSION AND VALUE STATEMENT

(Excerpts from the book: Bootstrap leadership – 50 ways to break out, take charge, and move up by Steve Arneson)



Vision & Mission provides purpose and direction to an organization and paves way for road to success

VISION – Vision is the dream – the future state, where you want to go. Think of it as the why – as in, "Why does our group exist?" The vision should be aspirational and motivational; something the team can rally around. . . . . Aim high and make it aspirational. A great vision can unify a team and give its members a reason to come to work every morning.

MISSION - Mission is the goal: the objective in front of you. Think of it as the what – as in: "What are we trying to accomplish?" The mission should be challenging and should describe the business you're in and the customers you are trying to serve (whether internal or external). The mission should be connected to the vision; that is, by accomplishing the mission, you move closer towards making the vision a reality.

DEVELOP STRATEGY – Think of Strategy as the how – as in "how are we going to complete the vision?". Strategy describes the specific plans taken to meet the objective, and should be clear and measurable. Good strategy includes detail about how the work will be accomplished, and includes resources, responsibilities, budget, metrics, and milestones.

VALUES - Value statements are often referred to as "guiding principles". A value statement is an expression of a company's or individual's core beliefs. It allows for the company's staff to be aware of the priorities and goals of the company.

The value statement, along with a mission and vision statement forms the corporate culture and climate.

VISION	IAI to be globally well recognised professional organisation, developing enduring thought leadership to manage uncertainty of future financial outcomes.
MISSION	To educate/train risk professionals • To enhance and maintain high professional standards • To shape Public Policy and Awareness • To engage with other professional/regulatory/government bodies • To promote/build IAI as a respected Brand of risk management globally • To promote Research, to advance actuarial science/application
VALUE	Integrity • Respect for others' views • Accountability • Continuing learning/Research oriented learning • Transparency • Be responsive/ sensitive