

Malaysian Actuary

Issue No. 10

DECEMBER 2006

An Interview with 3 ASM EXCO Members

With Profit - An Endangered Species

“You are like a Dinosaur!”

**Continuing Professional Development (CPD) for
Faculty and Institute of Actuaries**

2007

CONTENTS

- 1 Message from the President
- NEWS**
- 2 ASM Annual Dinner 2006
- 3 Updates from the Singapore Actuarial Society
- EVENTS**
- 4 Joint Regional Seminar 2006 - "Current Topics in Financial Reporting"
- 5 Risk Management in an Insurance Company
- 6 "Why Non-life Actuarial Expertise is a Critical Success Factor in Today's Market and Regulatory Environment"
- 7 ASM Bowls!
- INTERVIEWS**
- 8 Actuaries in Malaysia
An Interview with 3 ASM EXCO Members
- 10 Interview with Peter Telford
- 12 Interview with David Grundy
- 15 A Day in the Life of a Regional Investment Actuary - David Gundy
- 17 Malaysian Actuary Abroad
A Day in the Life of a Commercial Pricing Manager - Kartina Tahir Thomson
- FEATURE ARTICLES**
- 18 With Profit - An Endangered Species
- 19 "You are like a Dinosaur!"
- ACTUARIAL ANECDOTES**
- 21 Along Came Polly or "How the Good Guy Risk Analyst Gets the Girl in the End by Using Stochastic Analysis"
- EDUCATION**
- 22 American Education Path
- 23 Continuing Professional Development (CPD) for Faculty and Institute of Actuaries
- 24 Actuarial Jokes

EDITORIAL TEAM

- Chong Hui Min, MSIG Asia
- Gary Hoo, NMG Consulting
- Jeremy Lim, Prudential Assurance
- Kelvin Hii, Hong Leong Assurance
- Lim Ling Feng, ING Insurance
- Lisa Leong, Prudential Assurance
- M Khairul Izad, Mercer Zainal
- Tioh Jih Ying, Bank Negara Malaysia

e editor@actuaries.org.my

Barely a year ago, I was writing the final ASM President's Message for the year 2005. As I was re-elected to be President for year 2006, that turned out not to be the last one. However, this one will surely be my final message as President of ASM due to the ASM Constitution which states that a President cannot stay for longer than 2 terms.



Are there any emotions leaving this role? I had planned to tread down memory lane and reflect on some experiences I have gained from the past two years. While this may be good, I thought the more important thing to do is to look prospectively (against the actuarial convention of looking back into history!)

The current EXCO, and supported by many members I have spoken to, wants to make the ASM a truly professional body. I feel that we have achieved this to some extent so far, as was mentioned to me throughout the term by some members. I am pleased to note that many members have called me and volunteered to assist in helping to shape ASM towards a more professional stature. I believe that the foundation has been laid, and that future President and EXCO will be able to take it up from here to develop further.

One area I think would be important is CPD – Continuing Professional Development. The Institute of Actuaries of UK is now making CPD compulsory in that every Fellow must fulfill and record the required number of hours online. I am sure other professional bodies are doing or will be doing something similar. This is indeed a giant leap forward to make actuaries an even more credible and trusted profession in the public eye. This is necessary because our skills are becoming more widely recognized and accepted in the public. I would suggest that ASM similarly introduces some kind of CPD requirement to ensure that we constantly update our knowledge via further education.

While ASM has accomplished various tasks, yet there is still unfinished work. I will leave it to the next EXCO to continue building the vision. For now, I would like to thank the EXCO for their tireless contributions to ASM throughout the year. Because you are committed and have acted consciously and professionally, it has made my term as President so much more enjoyable. For that, I would like to extend a big THANK YOU to you.

For many other members who are not in the EXCO but who participated via other sub-committees, you have also made very valuable and important contributions to the Society. These are the real workers behind all the activities of ASM. Again, I THANK YOU.

Before I bid farewell, I hope that many of you who have participated actively and/or shown interest in ASM activities will continue to do so in the coming years. You might even want to contemplate volunteering to be an EXCO member to contribute more directly.

Lastly, my biggest wish is that while we have started well and continued well, we must also aim to finish well. I am reminded by the quote, "Becoming an actuary is not difficult; being an actuary is".

To the next EXCO, cheers!

ASM Annual Dinner 2006

by Gary Hoo

Date: 8 August 2006

Venue: Shangri-la Hotel, Kuala Lumpur

The annual dinner kicked off with a 5pm afternoon talk featuring three prominent CEOs in the insurance industry who shared with us their wealth of experience, having practiced as actuaries before moving up to their current distinguished positions.

Mr Alex Foong of Great Eastern spoke of how he started off as a mathematics teacher before pursuing his career as an actuary. He pointed out on how difficult it was back then when the actuarial profession was practically unknown in Malaysia and how he had to “eat fast and sleep less” to cope with juggling between work and studies. Mr Foong advised students to not be discouraged by exam failures but to build and learn from them. He mentioned that the actuarial profession is heading towards new changes as opportunities in non-life insurance area begin to open up, e.g. in general insurance and risk management.



Actuarial Society of Malaysia Photo Gallery 2006

Mr Ng Keng Hooi of Prudential similarly feels that the prospects for actuaries are now more exciting in non-traditional roles including



Actuarial Society of Malaysia Photo Gallery 2006

marketing and sales. He shared on how Jack Welch's book “Winning” helps him in his day-to-day managerial roles, including the 4E1P principle – Energizing people, having Enthusiastic communication, maintaining the Edge, proper Execution and being Passionate in one's job. He spoke also on keeping a balanced lifestyle along with the importance of having a mentor in guiding one's career progress.

Mr Ng Lian Lu of AmAssurance shared on how he started his insurance career in the training department where he sold insurance products, before he ventured into actuarial science. He advised the attendees to never underestimate one's own abilities and to always put in one's best effort. He also said that a capable leader should be able to make good decisions and these decisions should be based on facts. He concluded that there are 3 main ingredients to a great career – Goal or vision, Capability or knowledge, and a Burning heart or commitment.



Actuarial Society of Malaysia Photo Gallery 2006

The talk concluded just after 7pm, after which all attendees then proceeded to dinner where we were also treated to a captivating “Sudoku challenge”. Juggling between shoving food into our mouths and having to chew them, while at the same time mentally analyzing the 9x9 boxes and shouting to teammates on what numbers should go into which box, was definitely not an easy task. Congratulations to all the Sudoku table winners!

Right after dinner, we kicked off the exciting trivia Quiz, where teams of 4 battled their wits to determine who were the smartest when it came to areas such as identifying seriously foreign currencies, naming relatively unknown buildings located in KL, and guessing TV show titles from the 80's by listening to their theme songs. It was a session that ended past 11pm but well worth the wait and fun. Again, our congratulations to all the worthy Quiz winners, our hats off to you!

Updates from the Singapore Actuarial Society

by Chi Cheng Hock

The Singapore Actuarial Society (SAS) had been active in the last few months, with the most significant events being the retirement conference held in October 2006 entitled 'Asian Retirement - Ready or Not?', and the introduction of its first Professional Standard PS1: Continuing Professional Development.

The retirement conference was well attended with more than 140 delegates from Singapore and overseas. The list of high profile speakers included Yves Guerard, Secretary General of the International Actuarial Association; Liew Heng San, CEO of Singapore's Central Provident Fund; and Yvonne Sin from the World Bank. The Society celebrated its 30th anniversary with a gala dinner during the conference.

Compliance of PS1 is mandatory for all SAS Fellows. This Standard allows the SAS to monitor the professional development of actuaries who are providing professional services in Singapore. Fellows must continue to satisfy the CPD requirements of their 'parent' associations. A Fellow may fulfill the requirements of the SAS and the parent body simultaneously, wherever appropriate.

Besides these events, the SAS also organised and conducted a Faculty/Institute of Actuaries Module CA2 (Modelling) workshop in August 2006. 13 students from Singapore, 2 from Malaysia and 2 from Hong Kong attended the workshop. It was conducted by Assoc Prof John Shepherd of Macquarie University, Sydney, Australia and Mark Birch. 12 students passed the module, giving a pass rate of 92%, comparable to the workshops held in the UK.



An Actuarial Forum was held on 26 October 2006, with Ronnie Bowen, Vice-president of the Faculty of Actuaries as the speaker.

You will have received the call for papers for the SE Asia Health Insurance Seminar 2007, which SAS will be hosting from 30 July to 3 August in 2007. The Society is hoping for a strong participation from members of regional actuarial associations, in terms of both attendance and presentation of papers, to make this a truly international event.

More information on these activities, as well as other upcoming ones, can be found in the SAS newsletter posted on its website: <http://www.actuaries.org.sg>.

Please feel free to browse.

Upcoming Regional Events in 2007

1. South East Asia Health Insurance Conference
Date: 30 Jul - 3 Aug 2007
Organizer: Singapore Actuarial Society with support of International Actuarial Association
More information:
<http://www.actuaries.org.sg/documents/Health%20Conference%202007%20-%20CALL%20FOR%20PAPERS%20final.pdf>
2. 14th East Asian Actuarial Conference (EAAC)
Date: 09 Oct - 12 Oct 2007
Venue: Keio Plaza Hotel, Tokyo, Japan
Organizer: Institute of Actuaries of Japan
More information: <http://www.eaac14th.com>
3. 23rd Pacific Insurance Conference
Date: 28 Oct - 31 Oct 2007
Venue: Shangri-La Hotel Kuala Lumpur
Organizer: Life Insurance Association of Malaysia (LIAM)
More information: <http://www.actuaries.org.my> and <http://www.pacificinsuranceconference.org>

Joint Regional Seminar 2006

“Current Topics in Financial Reporting”

by Lim Ling Feng

Date: 22 & 23 June 2006

Venue: Sheraton Imperial Hotel, Kuala Lumpur

Kuala Lumpur – The Actuarial Society of Malaysia welcomed over 160 delegates from Asia, ranging from our close neighbour, Singapore to as far as Pakistan, to the Sheraton Imperial Hotel on the 22nd and 23rd of June 2006 for the much anticipated Joint Regional Seminar event, in hope of learning, sharing and exchanging views on the current issues on financial reporting.

On this inaugural occasion, ASM was privileged to have invited several high profile and experienced speakers to cover various topics ranging from International Financial Reporting Standard (IFRS), emerging trends and developments in financial reporting requirements to enterprise risk management. However, the event was not a one-way affair. The event had also successfully served as a platform for participants to share their point of views on the progress as well as adoptability of certain practice, for instance, Market Consistent Embedded Value, in the Asia-Pacific Region.



During the second day, more discussions were held and opinions exchanged as the seminar proceeded to more lively half-day workshops involving the IFRS implementation issues as well as Embedded Values.

The members of the Society of Actuaries as well as the Faculty and Institute of Actuaries also had the opportunity to earn Professional Development points!

The event was generally very well received and the feedback was very positive. Some of the feedbacks from the industry are as follow:

- *“Addresses most of the current issues in the industry ... definitely one of the most successful events organized”*
- *“Intellectually challenging talks but not boring”*
- *“It is interesting to see how Solvency II and IFRS Phase II (which govern the measurement of insurance companies) will interact. Having said that, there is immediate need for insurers to provide sound disclosures.”*
- *“Some topics are less relevant to the Asian industry but nevertheless provide a useful platform to discuss possible future developments in the region”*
- *“Well presented talks in a well-picked venue. Well done ASM!”*
- *“Interesting presentations with interactive sessions”*
- *“The idea of Economic Capital was something new to me. It definitely was an eye-opener.”*
- *“A truly magnificent conglomerate of actuaries across the region”*
- *“The food was great!”*
- *“The ALM Framework talk delivered by Mr. Mark Saunders was truly enlightening!”*
- *Despite stretching over one and a half day, the seminar was deemed as one of the highlights in 2006. The ASM would like to extend its gratitude to the speakers and participants who have come a long way to make the event a success.*

Risk Management in an Insurance Company

by Hung Kian Teong & Ainur Fadhilah Ahmad Fuad

Date: 19 July 2006

Venue: Menara ING, Kuala Lumpur

On July 19 2006, ASM organized a talk entitled "Risk Management in an Insurance Company" at Menara ING, Kuala Lumpur. The talk was aimed to enlighten Malaysian actuaries on the alternative of venturing into the Risk Management trade. The guest speaker for the day was Ronnie Tan, a Fellow of the Society of Actuaries (1997), a Certified Financial Analyst (CFA), as well as a member of the American Academy of Actuaries (MAAA). Tan is currently based in Singapore as the Head of Group Risk Management for Great Eastern (GE).

Tan started off his presentation with an interesting anecdote on the significance of mutual understanding and effectual communication amongst different parties in an insurance company - actuaries, investment professionals, accountants, lawyers and the Board. This is important to ensure that the information of interest is correctly and accurately conveyed to the relevant parties. In his anecdote, Tan described how the investment department could come up with a fantastically illustrated diagram derived from a single yield rate given by the actuarial department. In essence, any information should be well communicated to the respective department to avoid any misinterpretation or abuse of the information, judging from a risk management perspective.

Following the lively introduction, Tan brought in the GE ERM Framework that served as the core of the day's presentation. The fundamental behind the framework is basically the cycle of three main aspects of risk management:

- Risk Governance
includes the risk appetite of the Board, detailed to the clearly defined roles and responsibilities of the unit(s) involved in providing the assurance.
- Risk Framework
the consistent framework which includes the internal models that regulate the risk measurement across the entire company.
- Business Decision & Execution
the focus of having risk and return optimized at overall company level.

Further to these would be the Reporting & Monitoring as well as Standards & Benchmarking for feedback on the established policies, sharing and comparison in the financial industry.

Tan then proceeded to the subject of Risk-Capital-Value Framework whereby two portfolios, Portfolio of Enterprise Risks and Portfolio of Capital Resources, are managed separately while ensuring that the capital adequacy is met. In managing



Actuarial Society of Malaysia Photo Gallery 2006



Actuarial Society of Malaysia Photo Gallery 2006

the Portfolio of Enterprise Risks, he stated that such a portfolio ranges from various risk allocation at macro level, to systems, processes and people at micro level. He illustrated the different risks GE bears in a pie chart and showed how the subjective risks such as operational risks are quantified to give an aggregate risk allocation decision to the company. Tan also explained that application of a consistent framework is sufficient for the comparison.

In conclusion, Tan's brilliant delivery is undoubtedly beneficial to all those who attended the talk. It was a valuable session that gave its attendees an insight on the various risks embedded in an insurance company, as well as highlighted the frameworks used for risk management.

“Why Non-life Actuarial Expertise is a Critical Success Factor in Today’s Market and Regulatory Environment”

by Gary Hoo

Organizer: ASM and ISM

Date: 22 September 2006

Venue: Crowne Plaza Mutiara Hotel, Kuala Lumpur

In light of the recent regulatory requirements and market changes for non-life insurance in Malaysia, actuaries have become more and more sought after. However there continues to be a lack of dedicated staff for quantitative and actuarial analysis in this field locally. In view of this, ASM and ISM jointly organized this 9am morning talk entitled “Why non-life actuarial expertise is a critical success factor in today’s market and regulatory environment” targeting directors, CEOs, senior management and actuaries from insurance and Takaful operators. The talk featured three distinguished non-life actuaries who have extensive experience in the Asia region as well as first-hand experience in the Malaysian market.

En. Mustafa Ahmad shared on his experience as a life actuary and his subsequent move into non-life insurance area. He mentioned that Malaysia currently lacks local expertise in non-life insurance and that we should tap into foreign expertise to assist in speeding up the process of developing a local talent pool. En Mustafa also described the major roles an actuary plays in a non-life insurance company, and also briefly shared the many challenges of communicating one’s findings across to the company management.

Mr. Sebastian Tan then spoke on the importance of pricing and statistical underwriting to help improve the profitability of non-life insurance companies. He demonstrated that actuaries play a vital role in performing such analyses, and that it will be highly beneficial for non-life insurers to use the skills and knowledge of actuaries. Mr. Tan also mentioned that from proper analyses, the company will be able to identify the actual cost of losses for each risk and thus, will be able to price them more accurately.

Mr. Sheng Yu was next to speak and he shared of his wealth of experience as a consulting actuary based in Hong Kong. He talked about the general development of the actuarial profession and the progress of non-life actuarial expertise both in Hong Kong SAR and China. The local Malaysian market will indeed gain from learning on how these markets have successfully introduced and integrated regulatory requirements for actuarial expertise in non-life insurance.

The informative talk concluded with a panel discussion where the audience was given the opportunity to ask questions and tap the knowledge and experiences of these three prominent actuaries. The Q&A session was then followed by lunch at noon.



ASM Bowls!

by Pong Chiew Ping

Date: 1 December 2006

Venue: Cosmic Bowl, Mid Valley Megamall, Kuala Lumpur

The ASM Newsletter editor gave me three reasons to write this article: -

1. The same few people have been writing the articles in recent editions
2. The editorial team has had its fair share in article writing in the past one year
3. I am the event organizer, isn't that the perfect reason?

So, here am I, as the event organizer of ASM Bowling Tournament 2006, presenting you the report on the event.

First, I would like to take this opportunity to thank everyone who had contributed to the success of this event. Many of you must have received my phone calls and emails in my attempt to boost the turnout rate. Despite my constant bugging, I hope you had enjoyed yourselves, especially the first timers. Special thanks to Elisya who had helped out with registration. Not forgetting a colleague of mine who had helped to create the wonderful banner for the tournament.



We had managed to obtain the participation of 23 teams (92 participants) owing to the great response. More than 20 members and non-members had also turned up to support the teams.

Dinner was held before the tournament began. It was a great opportunity for members to mingle with one another.

The tournament finally began at 7.30pm. Each bowler played 2 games. Some did very well, while some spent a great deal of time 'polishing drains'. According to some teams, they have had practices before the tournament. Practice makes perfect...

The games finally ended at half past nine. We could sense the excitement while Ravinder was working on the results. The results were as follow: -

Group

Champion – Team Uni.Asia

1st Runner-up – Team MAA

2nd Runner-up – Team Bank Negara Malaysia

Male Student

Champion – Yong Hong See (Uni.Asia)

1st Runner-up – Ramlan Mohd Nasir (MAA)

2nd Runner-up – Lai Wei Cheong (Manulife)

Female Student

Champion – Gavina (MAA)

1st Runner-up – Krystle Lim (Great Eastern)

2nd Runner-up – Lee Shuh Yeen (Uni.Asia)

Male Fellow

Champion – Ong Kheng Heng (Prudential)

Prizes were presented by ASM Immediate Past Vice President, Raymond Lai.



There was no participant in the Female Fellow category. Hence, the prize was presented to me as a token of appreciation (according to Ravinder). I will keep it as a source of inspiration. Who knows one day I might become a fellow cum bowling champion?

Actuaries in Malaysia

An Interview with 3 ASM EXCO Members

by the Malaysian Actuary team



The following interview was conducted by the Malaysian Actuary team with three of our present ASM EXCO members who are fully qualified practicing actuaries. With the objective of informing the general public of the actuarial profession along with updating the current actuarial workforce in Malaysia on the latest industry developments, we have with us Mr Lee Jiau Jiunn from AIA who is also the current ASM President, Mr Teh Loo Hai who runs his own consulting firm TAS and who is also the ASM Immediate Past President, and Mr Ong Kheng Heng of Prudential who is the current ASM Treasurer.

Malaysian Actuary (MA): *Since this is for the general public's reading as well, perhaps we can start off by describing what actually is an actuary and what does an actuary do?*

Lee Jiau Jiunn (JJ): Various descriptions have been used to describe what an actuary is. The two I like most are: An actuary is a person who uses mathematical skills to make financial sense of the future. I like this because it somewhat captures what an actuary is, i.e. mathematical and with a job that involves making financial decisions. The other one is to describe an actuary as one who drives a car forward by looking at the rearview mirror. I like this because it describes the actuarial job in a subtle manner yet seems to suggest that an actuary must also learn to look prospectively. Traditionally, an actuary is usually found in an insurance company, analyzing statistics and calculating risk. Today, you will see more actuaries in other areas, such as financial institutions and investment houses.

MA: *How did you become an actuary? What led to you to take this path?*

JJ: I actually did not know what an actuary was before my university life. By some fortunate circumstances, I came across this career in a university in New Zealand. I was drawn into this because I loved mathematics and employing its skill-sets in the financial world. Actuarial science seems to offer this feat, and once I started the journey - as people would say - the rest is history. I have enjoyed the job so far, and still look forward to it everyday!

Teh Loo Hai (TLH): My Form 4 class teacher introduced me to the actuarial profession. I was quite good at math in secondary school. Back in those days, if you were good in math, you would pursue

an engineering course. My uncle being an engineer himself however advised me against it. My father being a businessman wanted me to study accountancy. So I was looking for something in between, something that had a lot of math in it yet was business related. My class teacher's advice came at the right time, and yes - the rest is history!

Ong Kheng Heng (OKH): I started with a degree in Actuarial Science, and then worked in life insurance companies in the UK, Malaysia and Singapore.

MA: *How does one become an actuary in Malaysia? What traits are important to be an actuary?*

JJ: The actuarial profession is a statutory qualification since 1996 in the Insurance Act. The Insurance Act only allows an actuary who is a Fellow of a recognized professional body to practice in Malaysia. Hence, you must obtain the qualifications through this route after your basic actuarial degree. Actuarial examinations are difficult, one of the toughest in the world. The passing rates are usually low and the standard is set high. Hence, you must be very aware and carefully consider the weight of all these before taking up the examinations. You must be mathematics savvy or at least have a strong inclination toward mathematics and statistics. In addition to that, you must be ready to commit a lot of time to studying. An actuary is usually a very focused person.

TLH: To be a successful actuary in Malaysia, I believe one needs to go beyond having good technical skills. As there are not that many actuaries in Malaysia compared to other more developed countries, actuaries tend to play important management roles in the corporate world. So actuaries must be a good manager and leader, have

good business acumen and be a good communicator.

OKH: To qualify as an actuary, one has to sit for a series of examinations whilst trying to juggle between work and social life. Important traits to be an actuary would include perseverance, attention to detail and good communication skills.

MA: *How is working as an actuary in Malaysia like?*

JJ: I have been working in Malaysia in the last 10 years, and it has been both very enjoyable and challenging. In terms of actuarial development, Malaysia has been progressing in a very fast pace towards the standards set in the mature markets. As a result, there is a constant change of actuarial skill-sets needed and actuaries need to update and improve themselves regularly.

TLH: The corporate life of an actuary in Malaysia is far from boring. The career path for a young actuary is fantastic and for the right people, you are almost always in the fast lane for career growth. Once an actuary grows out of the technical roles, he/she has a wide world open to him/her. There are so many senior positions in the corporate world that actuaries can play a significant role in. These roles range from CEO, Chief Actuary/Appointed Actuary, CFO, Chief Marketing officer, Chief Risk Officer, COO just to name a few common ones. Of course there are also other opportunities such as in the consulting world and government sector. Actuaries can also enjoy flexibility in work - I know of at least more than one actuary in Malaysia who works from home! Having said all the good things, an actuary's work can be quite demanding. Most actuaries put in long hours. However, most of the actuaries in Malaysia whom I know (and

Actuaries in Malaysia

An Interview with 3 ASM EXCO Members

⇒ this means almost all actuaries in town) are relatively happy people.

OKH: Actuaries in Malaysia probably have a lot more variety in work than in more developed countries where there is a greater level of specialization.

MA: *What are your views on the growth of the actuarial profession in Malaysia over the recent years and in the future years to come?*

JJ: The actuarial profession has been developing very well in Malaysia. Ten years ago, the number of qualified actuaries was only around 20 and actuarial students were only about 50. Today, we have about 50 qualified actuaries, and about 200 students. Presently, the financial landscape of the insurance industry both in Malaysia and the world is undergoing frequent changes. As a result, I believe the demand for actuaries will continue to be very high. In fact, I think there is a shortage of actuaries and actuarial students currently.

TLH: There has been some improvement in the number of newly qualified actuaries recently. From what I noticed of late, I think each year we see about 3 newly qualified actuaries being produced. Compared to more than five years back, you would be lucky if we had more than 1 newly qualified actuary in a year. With the large student base that we have now, I have no doubt we will see more people qualifying in future years. The other factor to look at in the growth of the profession is the brain-drain factor. Our actuaries are still attracted to overseas countries as most developed markets enjoy better pay packages as well as regional exposure. There is certainly still a shortage of actuaries in Malaysia. With the four new Takaful operators and a few mergers/acquisitions that have resulted in the entrance of international players, the future for actuaries in Malaysia is certainly very bright. This is not even taking into account the untapped opportunities in the general insurance companies.

OKH: The membership numbers in the

ASM are showing healthy growth. There are more Malaysians qualifying as Fellows each year and this includes Malaysians practising outside of the country. The Malaysian actuarial profession is quite dynamic with inflows and outflows each year but I believe there is still ample room for growth. The attendance at the ASM functions has also been very encouraging with full houses for the events that the ASM runs.

MA: *What about your views on the seemingly over-supply of fresh actuarial university graduates of late? Where should they look to for employment?*

JJ: Many companies are still looking for actuarial students, both experienced and fresh graduates. There is also growing demands for actuarial skills in the general insurance industry, as this is a relatively untapped area.

TLH: I think we all have a role to play here. There is a fierce competition out there for experienced actuarial students. I have heard of high actuarial student turnover rates and in some cases, companies seeing almost all new faces in the actuarial department compared to 1 or 2 years ago. I can understand naturally we all prefer experienced staff in our recruitment but I would like to appeal to all potential recruiters of actuarial students out there not to forget our social responsibility as well. Nobody was born with experience and we were also at least once given the opportunity to acquire our experience and knowledge. Our training in demography would have taught us about the risks associated to a population if there is no supply of new entrants and the base of the population chart become narrower.

For fresh actuarial graduates who can't find employment, my advice is for them to look beyond the traditional areas of life companies. General insurance industry would be a good choice. However, our fresh graduates must be prepared to take it the harder way, as in most general insurance companies, they will not perform the traditional actuarial functions, they may not have proper

guidance from a qualified actuary and they may not enjoy good study schemes.

For actuaries working in composite companies, I strongly urge all of you to help establish and grow the actuarial department/section in the general insurance area. Actuaries certainly have a role to play in general insurance companies as proven overseas. If we do not take the initiative, the opportunities for the profession will be limited.

OKH: If Actuarial Science remains a popular course amongst students, that can only be good for the profession. Companies can choose the best candidates while candidates must be well-prepared to secure the positions they want. This means having a well-written CV and good interview techniques. The ability to make a good first impression certainly helps. Also be prepared to move into other areas to utilize your actuarial skills.

MA: *What developments in the industry are currently affecting or changing your roles?*

JJ: As I said earlier, the financial landscape of the insurance industry is changing. Throughout the world, new financial reporting and accounting standards are being and will continue to be introduced. Many regulators are also assessing the level of capital adequacy, and are looking seriously at a financial framework where the capital is tied to the level of risk, i.e. Risk-based capital. In addition, Malaysia has introduced Takaful insurance, an Islamic-based insurance concept. As Malaysia is at the forefront of Takaful developments in the world, there is a big role that actuaries can play in this new and growing area. All these developments have been keeping actuaries busy. Actuaries can no longer rest on their laurels; instead they need to update and improve themselves constantly through continuing professional development. I believe actuaries will play a bigger and/or different role in the future.

TLH: I moved out of corporate world last

Actuaries in Malaysia

An Interview with 3 ASM EXCO Members

⇒ year and decided to move into consulting. That itself is already a big change in my roles at work. Currently I focus on non-traditional areas such as Takaful and general insurance. The recent entry of new Takaful operators and the government MIFC initiative are certainly very exciting news. Going forward, the introduction of RBC and the eventual de-tariffing of the general insurance business will augur well for the areas I am focusing on.

OKH: Recent developments in the Takaful industry this year have kept me busy. Helping to get a new Takaful operator started was both challenging and exciting. In addition, the increased focus in risk management has also been keeping me busy in developing the risk management processes of the company. These are areas that the majority of actuaries in

Malaysia may not have been involved in previously.

MA: *Are you as rich as people generally associate actuaries to be?*

JJ: "Rich" is a relative term. I believe actuaries are generally well paid. However, to put things in the right perspective, other professions are known to pay well too.

TLH: Generally, the actuarial staff enjoys a better remuneration package than their peers in other professions/industries. However in choosing one's career, I always believe that we should not look at the remuneration package as the dominant deciding factor. We should look at what we like and what we dislike, as we normally excel in things that we like. Look at it

this way: we spend about 1/3 of our lives working. If we do not achieve satisfaction in our jobs, eventually no matter how much you get paid you will want to run away from it. After all, there are always other professions that enjoy better pay than actuaries and there are faster ways to becoming rich in a big way.

OKH: The actuarial training has certainly been useful for creating financial awareness – not necessarily financial wealth.

MA: *Thank you to all three of you for the time taken for this interview. We are certain this article will be beneficial to the Malaysian society who wants to find out more about the actuarial profession and to the current actuarial workforce in Malaysia and overseas in keeping them updated on recent industry developments.*

Interview with Peter Telford

by Bronwyn Loong, FIAA

The interview was conducted by Bronwyn Loong, FIAA, Assistant Editor of the Newsletter of the Actuarial Society of Hong Kong. She can be reached at bronwyn.loong@axa.com.hk. The interviewee was Peter Telford, FIA, from AXA Asia Pacific, Strategic Finance Department and can be reached at peter.telford@axa.com.hk. This article first appeared in October 2006 issue of ASHK Newsletter and is reproduced with permission.

We have invited Mr. Peter Telford from AXA Asia Pacific, Strategic Finance Department to be interviewed. Let us hear his thoughts and comments about Risk Management.



Peter Telford was formerly the Regional Chief Actuary and Chief Risk Officer of AXA Asia Life. In January 2007 he left AXA in order to return to the UK.

How long have you been in your role as Chief Risk Officer?

I was appointed as AXA Asia's first Chief Risk Officer (CRO) at the start of 2005 so I've been in the role nearly 2 years. As it is a new role, I've been involved for all of that time in building a dedicated risk management function.

How do you contrast your current role with that of the Appointed Actuary?

I'm still an Appointed Actuary, at the same time as being CRO. The two roles fit together very well, although they have some different focuses and they answer to different stakeholders. The AA's primary duties are to maintain a sound financial condition, and to demonstrate this to the OCI (Office of the Commissioner of Insurance). The CRO has very similar concerns, but is answerable to the company and its shareholders.

Interview with Peter Telford

⇒ What are your general duties as Chief Risk Officer at AXA?

My job as CRO is not to manage all the risks directly – that would be impossible, and in any case it is the whole management team's responsibility to follow good risk management practices. The CRO's main duties are to advise and, in some respects, set rules on what is good practice; to monitor that good practice is actually being followed; and to measure the amount of risk being taken, relative to the company's risk appetite.

What advantages do actuaries bring in risk management roles over other finance professionals?

Actuaries are in many ways ideal CROs because we are trained to think in terms of contingencies, especially the unfavourable ones, and we know how to develop and use quantitative tools. However, a CRO needs to operate partly outside the traditional actuarial box, to think in words as well as in numbers about the company's risk profile and its implications.

What are your thoughts on Solvency II and impact on insurers?

Solvency II will be the insurance equivalent of the banking world's Basel II capital standard. It will affect all subsidiaries/branches of European insurance groups (which means many Hong Kong insurers) within a few years. A key aspect of Solvency II (as with Basel II) is that companies with strong risk management functions, and good internal risk models, can use these to work out their own solvency capital requirements – and this will usually mean a saving in capital, relative to companies without those qualities. So there will be a real commercial benefit from doing risk management well.

What are the major challenges you face in your role? Do these challenges differ by different types of risk?

In my actuarial training and career, I've learned how to measure and manage certain kinds of risk – for example insurance risk, financial option/guarantee risk and

market risk. And those are the areas which most insurance companies already handle quite well. But a comprehensive risk management framework requires more – such as policies and measurements for credit risk, counterparty risk, operational risk and so on. These are relatively new areas for companies and actuaries to handle in a systematic way. In building AXA's competency across those areas, I have the support of other professionals, such as corporate financiers, investment managers, and internal auditors – they don't all work for me, but we cooperate.

How does the risk management process differ from other non-financial institutions? (eg resource companies)

There is a fundamental difference, not only between insurers and non-financial companies, but between insurers and most banks. Those companies (apart from certain investment banks for example) generally treat risk as something to manage out – by turning it away, or hedging it, or transferring it off their balance sheet. By contrast, for insurers, risk is our stock-in-trade, and we will happily accept it – provided that it's at the right price, and in the right quantity. That's why risk measurement and risk appetite are vital concepts for insurance CROs.

What is the value to the business of having good risk management?

I've already mentioned one potential benefit in terms of lower capital requirements. More directly, product development and pricing is a key opportunity for actuaries to control risk. If we get risk management wrong at this critical point, management teams for years to come will suffer the consequences. Although the value of avoiding or limiting loss events can be very considerable, it can be difficult to measure reliably, because by definition the loss that we want to value is one that hasn't occurred. Perhaps we'll never know how much the value is, but we can be grateful that we won't find out the hard way?

Operational risk is one of the more difficult risks to measure. What has

been the trend in allocating capital explicitly for operational risk and do you expect this to change in the future?

Most global insurers are still in the early stages of measuring and capitalizing for operational risk. For example AXA has taken some initial steps in its European Embedded Value results for 2004 and 2005. The industry needs to do much more in terms of capturing historical data on operational risk losses, building models for future loss distributions, and standardizing reserving methods. It will be a growth area for actuarial practice.

How do risk management tools and policy in the Asian region compare with the US or Europe (eg use of Enterprise Risk Management (ERM))?

We need to make sensible use of the new techniques and tools that major world markets are developing. There may not be anything fundamentally different that Asia needs to do in risk management, compared with North America and Europe, but of course the principles need to be applied bearing in mind the generally less developed nature of most Asian markets.

What advice would you give actuaries wanting to pursue a career in risk management? Do you recommend any additional study to support this goal? Do you feel risk management is covered adequately in the current qualification syllabus?

I expect risk management to become an important "Wider Field", that some actuaries will adopt as a core part of their skill set, while the rest of us will need to understand the principles. For specialist risk management actuaries, I don't believe that current actuarial syllabuses cover the ground fully. Much of the necessary knowledge may come initially from other professional disciplines such as banking, project management, or corporate finance.

Interview with David Grundy

by Lisa Leong & Jeremy Lim

We recently had the pleasure of interviewing Mr. David Grundy, a well-traveled investment actuary currently working in Prudential Regional Office in Hong Kong. Starting of as a high-school math teacher, he has moved on to work with Tillinghast (Australia), Bacon & Woodrow (UK), Trowbridge Consulting (Australia, Hong Kong), AXA China, and Trowbridge Deloitte, before settling in with Prudential Corporation Asia (PCA), i.e. Regional. A very friendly and affable chap, Mr. Grundy was more than happy to impart his knowledge on all things actuarial.

PART I: CAREER & WORK

How long did it take you to achieve qualification?

9 years from when I started exams to when I finished. This included one period of 3 years without passing any exams, and getting an FC¹ grade on one exam for which I had done a lot of preparation.

What is your view on the arduous process fledging actuarial graduates have to take to reach the top? Is it worth the effort?

The process *is* arduous, no doubt about it. Speaking as someone who has failed plenty of exams, I'd like to say that "it's a character-building experience" and "I'm sure it was good for me" as I have so often been told. (Yeah, right.) It seems to me there are several issues with failing, and they have different importance depending on personality and the company you work for:

- It batters self-confidence. It's hard to persevere, particularly since most actuarial students were outstanding at school and have not had much previous experience with failing exams.
- Studying takes time out of personal life, and repeated exam failures waste time in life, which could be used for other things. However, in practice a lot of actuaries' just work harder, once qualified, to use up the newly available time!
- In many companies there's a strong expectation that students want to rise to management roles, but there's a low ceiling unless you qualify.

What are your job functions and responsibilities?

My responsibilities keep expanding!

I work for PCA (Prudential Corporation Asia, the regional office) and not for PAM (Prudential Asset Management, the investment management operation). However I do interact quite a lot with PAM people.

Primary function: Providing recommendations for Strategic Asset Allocation

- I produce recommendations for target asset allocations, benchmarks, and the range of delegated investment freedom around the benchmark.
- "Strategic" means treating the day-to-day movements of the market as noise (since worrying about that is someone else's job) and concentrating more on long-term Asset/Liability management characteristics. I don't have a Bloomberg terminal, for example, and when I need data I'm more likely to ask for a historical data series than for the latest price.
- A key responsibility is finding ways of measuring the suitability of alternative asset strategies: the extent to which a particular strategy achieves what we want ("return" or "value" metric); the extent to which things might go wrong ("risk" metric); how to properly represent policyholders' expectations of stability and performance, so as to see whether a given strategy will meet these expectations. And once we know how to measure these, how to present the results of an investigation in a way which makes it easy to see how different strategies compare.
- PCA's life insurance companies around the region have about 50 proprietary funds – ie shareholder funds or insurance funds where

shareholders may have to provide capital if necessary to support the insurance liabilities. I focus on these funds, and run a program of rolling reviews. Obviously prioritization is important – it can take some weeks or sometimes months to complete a review, depending on the detail required, and it's not worth spending much time on the smaller funds. I don't look much at linked funds as the asset allocation strategy is generally decided at fund launch and can't easily change afterwards.

- Various ad-hoc investigations to improve our understanding of ALM, such as whether including some fancy new equity strategy will make a difference to the overall risk/reward tradeoff in the funds, or how to define the duration of an equity portfolio for the purposes of ALM, or working out the extent to which on overseas fixed interest asset can provide a match to a local liability. These rely on a mix of theory and empirical investigations.

Other functions

- Advice on stochastic modeling, especially on whether a given approach will produce meaningful results.
- Long-term economic assumptions: I accept our "house view" (which is produced by someone else) but this needs careful interpretation and sometimes adjustment for specific applications.
- Generating sets of simulations for stochastic investigations (whether for SAA or for other purposes such as EEV reporting or stochastic profit testing) and advising on whether the characteristics of a set of simulations are suitable for a particular purpose.

¹ Translation: "Have you considered an alternative career?"

Interview with David Grundy

⇒ How different do you feel your role is as compared to your Actuarial peers involved in General and Life Insurance?

It's hard to know what's different because in fact I have never properly done most things that actuaries do. I tend to think I'm more like a product actuary than a valuation actuary, because what I do is supposed to result in a decision to change something (or not to change it), and because I need to talk a lot to people outside my area. It's possible that this just reveals my prejudices about the nature of other actuaries' work.

What do you think is the most rewarding aspect of your job?

- The most rewarding aspect of the job is inventing a method of arriving at an answer. I enjoy working out how to analyse a situation, and how to get a good enough approximation to the answer I need. I enjoy the research aspects of the job – for example, the question about matching with overseas fixed interest which I mentioned before – and I enjoy trying to work out how to communicate what I have learned in a way which allows others to comprehend it more quickly than I did. I like being regarded as an expert.
- I also enjoy the challenge of presenting results. Decision-makers generally don't want too many caveats on the recommendations; but I want people who use my results to understand something about the known limitations of the analyses. How do I communicate those limitations, while maintaining professional credibility and at the same time not sending my audience to sleep?

What are the major differences working for a Regional Office as opposed to local operations? Which do you prefer?

I think it probably depends on the specific organization. I know that in some companies, the regional office does not have much autonomy; but in PCA that's not true, so there's a lot of scope of

develop professionally and to get a very good understanding of the projects we get involved in. But I haven't had a purely local role (ever) so I can't really compare with what that's like.

For me the more interesting comparison is to working in consulting. It turns out that I enjoy working in the PCA regional office more than I enjoyed working in the previous 2 roles.

- My job now has a very high degree of independence, and if I think I don't understand something well enough I can usually pursue it further until I think I do understand it. In consulting, I found there was a much more difficult process to go through to get agreement to do extra work, and it's often less obvious whether it's in the client's interest to do so.
- In consulting, a key to advancement beyond a certain point is marketing. I guess I'm not especially good at organizing marketing activity, although I enjoy the meetings and presentations. I still do some sort of "marketing" internally within PCA, but it's really not the same.
- Another thing I like about the regional office role compared to consulting is that the fact that I see much more of what happens after the recommendation is delivered, so I have learned quite a lot more about what's practical and what isn't.

PART II: INVESTMENTS

Why do you think Actuaries are usually marginalized when it comes to the Investment field? With our strong technical background, why aren't we seeing strong demand from fund management and investment banks for our skills?

It's hard to answer this, as it's not a problem I have faced. Usually this question relates to the difficulty of getting a good job in a fund house or investment bank; but I have never tried to do that and I doubt that I would want to.

Fund management companies

- I think that actuaries are trying to get into the investment area from the side rather than the bottom, and may lack the necessary credibility for the sorts of jobs they might want. And someone who has gone to the trouble of getting an actuarial qualification may be reluctant to take a step "backwards" and start with a more junior role.
- I have heard of comments from fund managers over the years, suggesting that particular colleagues, while very good at whatever analysis or other work they do, are "not real fund managers" because they have never had direct responsibility for running a fund. Without that experience, it might be difficult to have the credibility for a senior role in an investment management house.
- My perception is that day-to-day fund management activity requires a willingness to take a position quickly (often based on insufficient or conflicting evidence) and accept the possibility of being wrong quite often. I suspect that the sorts of people who are good at being actuaries may not usually be good at this.
- The majority of senior roles in funds management (other than the research roles) seem to include a lot of marketing and negotiation. This is not generally regarded as a particular strength of actuaries.
- Research roles do not often require an actuary's knowledge of liabilities, whether Life, Pensions, or GI. Why should an employer pay a premium for a professional with a qualification which is not well targeted to the work?

Investment banks

- I think investment banks might be a better bet, especially with the trend towards creative investment products designed to meet the perceived needs of Life Insurance companies.
- Actuarial training seems to me to be more relevant here, since a key part of designing specific products should be in deciding what needs to

Interview with David Grundy



address.

- Once again, senior roles will require a significant proportion of time spent on marketing, while more junior roles may require long (and irregular) hours.

What steps can be taken to get more actuaries involved in investments? Where do you see are our strongest areas of contributions (e.g. financial instruments pricing, stochastic market simulations?)

- My perception is that a key contribution actuaries could make is in improving the understanding of risk. I have in the past seen some rather dubious statistical analyses presented by people trying to “sell” specific strategies or structured products. Either they believed the analyses (worrying) or they knew they were presenting unreliable evidence (even more worrying). I’m not really an expert on stats (and I am trying to find courses at a suitable level to address that problem) but even I can immediately see some problems with some analyses I have seen. The most common examples (that I notice) are back-testing analyses, which sometimes assume that overlapping time periods are statistically independent of the others, and sometimes even draw a strong conclusion from a single short period of market history.
- Stochastic analyses can certainly help, but there’s an art to setting assumptions and to interpreting the results, given that there don’t seem to be generally agreed models & parameters to reproduce the detailed characteristics of any investment market. In the example of the analyses I mentioned above, it’s easy to show by simulation that the original analysis is unreliable; but it’s hard to derive a reliable answer from stochastic modeling. The simulated performance of dynamic asset strategies depends critically on assumptions about the degree of serial correlation in asset returns at various time lags, and the extent

to which long-term volatilities of asset returns are different from what you would expect when you look at short-term volatilities. It’s hard to get consensus on how these should be modeled.

- To contribute to better investment strategy, I think actuaries would need to have a very good understanding of what kinds of strategy might plausibly work. Given the sheer volume of historical market data, you’ll always find patterns in a dataset if you look for them. Usually they don’t provide anything useful because they don’t persist when you look at other datasets. So you could waste a lot of time if you don’t filter the analyses: given that most markets are efficient almost all the time, is there a plausible mechanism by which a segment of the market might be persistently mispriced compared to other segments? The person I know who is best at this is an economist, not an actuary.
- Personally, I got into this area somewhat by accident. When I worked at AXA CR, someone had to run the implementation project for the new stochastic model, and that someone was me. Since then I have worked from stochastic modeling expertise towards asset allocation expertise. I was lucky that PCA was looking for someone at the time when I was looking, and they took me on even though my skill set was not exactly ideal.

Can you share with us the importance of Asset-Liability Modeling in our current financial climate of stricter accounting regulations and solvency controls?

I think maybe the most important change is not really in regulations, but in shareholders’ attitude to providing capital. A good return on capital has become more important than it used to be, and in order to provide that good return most companies try not to hold more capital than is needed. But it’s hard to determine what capital is needed without stochastic modeling; and then it’s hard to use stochastic modeling to

determine capital requirements without a pretty solid understanding of the model, the dynamics of the business, and the economic simulations used for the exercise.

What are the key skills that are helpful for young actuaries to pick up if they are interested in Financial Modeling?

I suspect this depends on the detail of the role. The skills I notice myself relying on (which relate to financial modeling) are these:

- Framing a problem correctly. Stochastic modeling usually involves a compromise between accuracy and feasibility (due to both complexity and run times). Correctly identifying the important elements allows focused development of tools to answer the question, and avoids wasting time on calculations that don’t matter for the question at hand. Often there’s no need to do a very detailed analysis.
- Presentation and explanation of results. It’s easy to misinterpret stochastic results. The people who use my results are mostly not experienced with stochastic modeling, and even if they are I can’t assume that they will immediately understand what my results mean. So I have to be ready to explain clearly what my results mean, and I try to leave out distracting detail. At the same time, I have to be ready to answer some questions in a lot of detail.
- Understanding the biases in the models and assumptions, and explaining to decision-makers on how significant those biases are. There’s sometimes a fine line to walk: I have to explain the limitations of the analysis, and at the same time make it clear what aspects of the results are robust in spite of those limitations.

PART III: PERSONAL INFO

When did you first decide to become an actuary? Who or what prompted or influenced your decision?



Interview with David Grundy

⇒ I had never heard of actuaries until after I finished my degree and started teaching maths. But teaching was so stressful that I was physically unwell most of the time, and I had to find something I was more suited to.

Luckily a friend's father was a career counselor, and he suggested to me that I'd make a good actuary. I looked it up and got the impression that actuaries could expect good pay, good conditions, and a requirement to be good at maths, and so I thought it sounded like the job for me.

Tell us about some of your hobbies?

- As you would have realized, I'm keen on photography. I probably spend 14 hours a week taking pictures, messing around with them in Photoshop, maintaining my piece of the photo sharing site, and looking at other peoples' shots.
- I like reading, mainly fantasy and popular science books. Recently I foolishly started on Robert Jordan's "Wheel of Time" series, which runs to something like 10,000 pages altogether.
- Travel, of course. This year and last year included leisure trips to Japan (Hokkaido and Kyoto), India

(Rajasthan), Indonesia (Bali and Sulawesi), Australia, China (Yunnan province), and USA (California). I have booked a photographic trip/workshop in Iceland for next July, which I'm looking forward to.

- I love diving, but just haven't had any time for it recently. I did 400+ dives in 2003 (while traveling mostly in Indonesia) and got lots of great underwater pictures, but this year I have only managed around 8 dives.

How do you balance them against the demands of your work?

I have three key strategies for keeping time available:

- I don't sleep enough.
- I almost never watch TV. And I especially avoid TV news, because of the lack of proper analysis of what's going on. For the first 5 years that I lived in HK, I didn't even own a TV. The only thing I really miss is good-quality comedy shows, but I have some on DVD which I occasionally have time to watch!
- I sometimes say, "No!" at work: I don't have time to do everything.

In the movie "About Schmidt", Jack Nicholson played an actuary as a math-

obsessed and socially disconnected person with poor communication skills. To what extent do you agree/disagree with the movie portrayal of actuaries?

- Well, I haven't actually seen the movie. (When I have time to go to the movies, I'd usually rather read something or go out with a camera.)
- There are plenty of jokes about actuaries' poor communication and social skills, but if you dig a bit you'll probably find that almost all "actuary jokes" are told about accountants and engineers as well. (The only exception I can think of immediately is the one about the Sicilian actuary²) So I guess that actuaries are not the only ones with the same image problem, but maybe we are seen as "more" intellectual, brainy, technical, and, by extension, socially disconnected, than these other professions.
- Still, I do know a few stereotypical actuaries. But I know a lot more who don't fit that stereotype. Perhaps those who don't fit the stereotype are more likely to do something beyond a purely technical role, and are less likely to identify themselves as "actuaries".

² If you have a group of, say, 1000 people, any actuary can estimate how many of them will die in the next 6 months. But the Sicilian actuary can also tell you which people will die, and their addresses and phone numbers

A Day in the Life of a Regional Investment Actuary

David Gundy

by Lisa Leong & Jeremy Lim

There isn't really "typical" day! But here's an example from a recent day:

- 9:45** I arrive at the office, get coffee, check e-mail. I find a note from GHO (in London) arrived during the night. A new version of our in-house economic scenario generator is coming this week. I read through the documentation of the changes to see whether it makes any difference to the data requirements for calibrating the model. I'm relieved to find there's no difference. I forward the documentation to some colleagues who will be working with it next week.
- 10:15** A friend from PAM (our fund management operation) comes over for a chat. We discuss the merits of Commodity Futures as an investment for a Life Fund, but (as in previous iterations of this conversation) we don't reach a consensus.
- 10:30** A colleague asks me whether we have "standard" long-term economic assumptions for a particular country. Specifically, do we have a "standard" assumption for the time horizon over which markets might return to equilibrium levels? As it happens, I did some work on this early this year so I'm able to suggest an assumption which, while not standard, is at least



A Day in the Life of a Regional Investment Actuary



accepted as plausible and has some evidence to support it. I have to dig through the archives to find out what parameters we agreed for that country though.

- 10:50** Second cup of coffee.
- 11:00** Calibration time: Part of the calibration process for stochastic scenarios needs a full forward curve month by month out to 99 years for each country. This involves some manipulation of the available data, and some assumptions for what happens to the yield curve after the longest bond available in the market. We have long-run assumptions, but how does the market data trend to the long-run? For this year I want to set up a standard approach to the necessary calculations so that it's easier for reviewers to see what was done. It's spreadsheet time.
- 11:50** A quick trip downstairs to get some lunch, and return to eat at my desk. I check my internet photo sharing site to see whether my "photo a day" shot that I posted yesterday has been popular on the photo sharing site. (It wasn't! Oh well...)
- 12:40** Back to the yield curve spreadsheet. It works, but the transition from market data to long-run assumptions doesn't look sensible. Lots of tweaking follows as I try to find an approach which will reliably produce sensible results on a variety of input datasets.
- 15:00** I get a question from a PAM compliance officer about a reported breach of a limit in one fund. We are in the process of re-writing the relevant investment policy document, and we know that this particular kind of breach will not be regarded as a breach under the new policy. Can I get an agreement from the necessary people (the investment committee) that the breach is not regarded as a breach? I check back through the documentation and determine that we already have an agreement which covers this situation. I send a note to the compliance officer to remind her of this.
- 15:45** Update on a Strategic Asset Review for one of our major funds: some simulation results are available from the local team doing the modeling work. I look at the results, and they seem broadly sensible; but there's something funny about one of the output series. I discuss it with the team. This kind of conversation is difficult by phone. Afterwards I try to write a spec for an additional reporting item for the next run, but I can't work out how to get the info I need without storing thousands of intermediate values. Then suddenly I see how to do it (which was obvious, once I knew how).
- 17:30** Downstairs for a coffee (decaf, at this time of day) and to try for a photo possibility I have in mind.
- 18:05** More discussion on that SAA review. We agree on runs for tonight with the new reporting variable.
- 18:25** There's a second investigation going on (another Par fund), and I start pulling results out of the model for presentation. There are many ways of looking at the results; I spend some time deciding which metrics give a reasonable picture of what's going on, and thinking about how to explain what the results mean.
- 20:50** Hunger catches up. I pack up and head for home, food, and some internet time. Last night's photo has been almost completely ignored, and I post a new one.
- 23:00** I open the work computer, and check e-mail. Nothing much coming from London. I work a bit more on the presentation, until at **1:30** I suddenly realize I should be asleep.

Malaysian Actuary Abroad

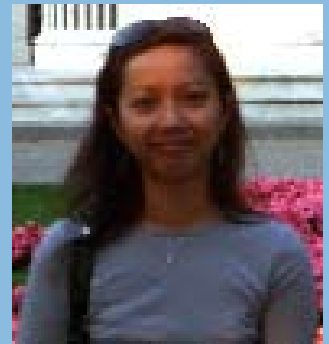
A Day in the Life of a Commercial Pricing Manager

Kartina Tahir Thomson

by Loke Chang Yueh

Your esteemed sub-editor wants to run a regular feature on Malaysian actuaries who are working overseas. He rang and asked if I know anyone who fits the bill and who are willing to contribute. It turned out that quite a few of my friends are keen and so in this issue, you will find a short but sweet contribution from a friend whom I have known since my university days.

Kartina Tahir Thomson, who is currently working in London, is one of the lucky few who had opportunities to work in life insurance, pensions and general insurance. Her forte is statistics (I would know, since I used to copy her coursework!) and she is an expert in Risk Based Capital for General Insurance. Mind you, she is not your typical actuary - she has a soft spot for high heels, fast cars and unshaven men. She has mellowed down since she tied the knot and she now enjoys trying out new cooking recipes on her hubby (who is now always immaculately shaven)!



- 6.32am** Nearly miss the train from Colchester to London Liverpool Street! But all is well as the train driver sees me running down the platform and gives me a cheeky smile... Who needs the gym, eh?
- 7.30am** Arrive at the office. As usual, first person here – just the way I like it. A little peace and quiet to do some admin work – expenses, low priority work, etc.
- 9.00am** As I am responsible for the commercial property and casualty pricing, most of my time is spent on pricing reviews and pricing models. At the moment, I am modelling professional indemnity products. I am trying to refine the pricing models so that there is a good balance between risk and profits.
- 10.00am** Catching up with my team, getting updates on their work progress and discussing on issues. It's a soft market in the UK insurance cycle at the moment so we are under pressure to reduce rates – a lot of work for us!
- 11.00am** Meeting with underwriters to discuss the rating structure and rates which I am proposing. Incorporate their market knowledge and subjectivity on feasibility of the proposed rates in practice.
- 12.00pm** Have lunch with an old colleague from my previous Risk-Based Capital (RBC) team. It's good to keep in touch with people as the General Insurance Actuarial community is very small, almost incestuous!
- 1.00pm** Back in the office. Enhance models with underwriters' suggestions and opinions. It's such an iterative approach that the pricing models end up being very dynamic (think Actuarial Control Cycle....).
- 2.00pm** Meeting with Finance Department to discuss process and prospect of embedding RBC into the business. I'm keen to introduce stochastic modelling into commercial pricing as you can incorporate variability as well as the mean of a distribution.
- 3.00pm** My boss came over to ask me to do a 'little' thing – provide some analyses on a strictly private and confidential M&A work with a close-of-play deadline (!!!).
- 6.00pm** Submit a high-level analysis on the M&A work using the embarrassingly little data that was given to me. My report is heavy with assumptions and I remember all the jokes on actuaries.....
- 6.30pm** Finally, I am done for the day. I catch the train home, daydreaming on what I should cook for dinner (am I brave enough to attempt cooking char koay teow without totally messing up?!).

With Profit - An Endangered Species

by Loke Chang Yueh

Recent experience in the United Kingdom has meant that with-profits have been taking quite a hammering from the press, regulators and consumer groups. One of the main criticism is its opacity; with investors getting little information about how their funds are invested, or indeed about the nature of the risk to which they are exposed. It may become an extinct species unless it can evolve to meet the new challenges.

The origins of with-profits business date from the late eighteenth century. Life offices were making mortality surplus as a result of margins in their mortality assumptions. These are then distributed to the policyholders by the way of reduced premiums or reversionary bonuses.

At the time, life offices had large volumes of non-profit business. People took out non-profit policies to meet liabilities that were expressed in monetary terms in a low inflation environment.

However, the life offices were worried whether they have enough capital to get through possible catastrophes, e.g. war or pandemic. The answer came in the form of with-profits to mitigate the risk in the non-profits business. If things went well, with-profits policyholders would get a share of the profits from the non-profit business. If things went wrong, the life office would still be able to pay the guaranteed benefits. It would stop paying bonuses and reduce surrender values but still be technically solvent at the expense of the with-profits policyholders.

For this to work, the Management and their actuarial advisers had to balance the interests of all concerned in a fair and honourable way, even though it has not been written down.

Things have now changed considerably and it is a difficult task to treat all parties equitably. Inter alia, the change from quoted companies with a wide range of small shareholders to companies that are wholly owned by one institution that is under pressure to increase profits

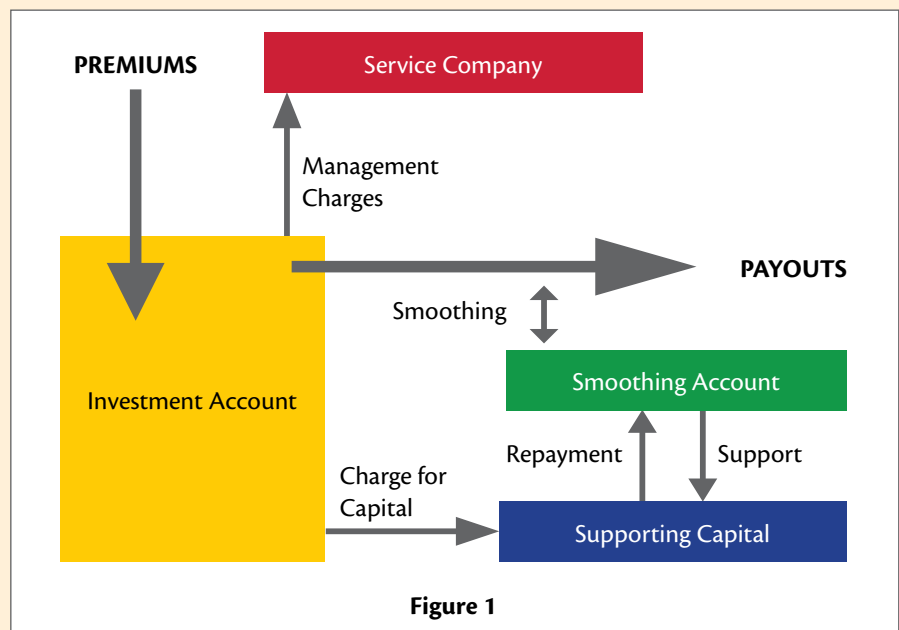


Figure 1

has been a complicating factor. So have inflation and the switch of investment policy to equities, and the consequent necessary changes to accounting.

One may now ask - why would anyone take out a policy that will suffer if anything goes wrong; that is opaque and relies upon the competence and good faith of the management; and where 10% of the profit goes to the shareholders for no apparent benefit to the policyholder?

In 2001, the UK Government set up a review of the long term retail savings market which was spearheaded by Mr. Ron Sandler. In the section on with-profits, The Review proposed the following changes which are designed to address the perceived shortcomings of with-profits business. In its most simple form, it requires

1. A separate management company (which could be owned and capitalised by the parent insurance company) would make management charges for running the fund.
2. Shareholders would not share directly in the returns to the fund and policyholders would no be exposed directly to cost risk, i.e. a 100/0 fund.
3. With Profits Fund not to be used for other part of business.

4. Full consumer disclosure, with the ability to impose a market value adjuster (MVA) to prevent arbitrage.
5. A 1% cap on the amount of charges providers can extract.
6. Smoothing should aim to be neutral 'in the long run' according to pre-specified formula or parameters.
7. The supporting capital would normally be provided by shareholders, either from their own funds, or alternatively from their share of any distributable assets from an existing inherited estate.
8. Distribution of an approved product through a controlled sales process.
9. Limits on investment risk, i.e. there should be a minimum component of fixed income and the equity investment should be diversified.

Figure 1 illustrates the flow of funds between the accounts

We shall look into some of Sandler's requirements briefly.

A separate management company would potentially be an extra cost. It is possible to achieve the same result with out setting up separate companies but the perception is that there will be better segregation from the use of a separate company.



With Profit - An Endangered Species

⇒ A 100/0 structure is seen as being clearer and fairer to consumers. However, there are many 100/0 funds already in the UK but there is no evidence that consumers regard them in any different light from 90/10 funds.

One of the potential uses of with profits funds is to finance new business, including non-profits business. Under the proposed structure, it would mean that the new business growth would have to be financed by shareholders.

The proposal for full disclosure is consistent with the regulator's initiative towards clearer benefit statements. However, there may be system issues relating to the provision of this information.

One question is whether the 1% cap would be enough to recoup expenses and meet the cost of capital, cost of guarantees and

cost of smoothing? This seems unlikely and studies have shown that the cap should be increased by another 0.5% if we were to have a viable product.

The main issue to address with smoothing is whether anyone would invest in a with-profits fund when the smoothing fund is negative? Another problem is how to ensure the smoothing processes will not build up unreasonable surpluses or deficits in the future.

The resulting product would be unitised with unit price published on a daily basis; have a separate smoothing account within the fund; have explicit charges and have a fund structure of 100/0. This would not be true with-profits in the original sense and Sandler actually suggested a change of name to "smoothed investment fund". Given the bad press of with-profits, it is no surprise that there was widespread

support for this.

We, in Malaysia, do not need to take such drastic actions yet but we could explore whether there is future demand for this product, bearing in mind that it is not too different from a unit-linked product. Perhaps we can position the two products differently - one with smoothed, less volatile returns but at the price of lower return in bull markets; the other providing more volatile but possibly higher returns.

The jury is still out on whether the complete makeover will offer with-profits another lifeline in the long run. If this is not viable, maybe a re-visit of older with-profits models is in order. For now, I shall leave the last words to a certain Mr. Darwin – it is not the strongest that survives, nor the most intelligent that survives; it is the one that is the most adaptable to change.

Disclaimer: The views expressed in this article are entirely my own and in no way represent those of my employer. I am hugely indebted to Mr. David Tomlinson who very generously provided an overview of the history of with-profits business in the UK and reminded me that I should use my right side of the brain more often!

"You are Like a Dinosaur!"

by Lim Ling Feng

While we were driving to a mamak stall, my friend, Ronald turned to me and said, "You are like a dinosaur."

"What?" Caught by a (sarcastic!) comment which came out of nowhere, this was all I could muster.

"I said you are like a *dinosaur*." He turned to me again, this time a bit longer, but still managed to make a right turn.

"No way, man. I am prettier than Scarlett Johansson." I quipped. Obviously, I am still stunned by his sleek maneuver and comment.

"That's not what I meant." Obviously unimpressed by my joke, my friend, who by the way is a huge Scarlett Johansson fan, turned around to the backseats to grab something and put it on my lap.

Now, I was even more confused. Sitting firmly on my lap was a Chinese magazine named "Smart Info". What on earth had it got to do with dinosaurs and me? However, it finally hit me when I was asked to turn to page 68. Featuring on this page was an



article about the four rarest professions¹ that you could find in Malaysia. And, guess what one of the professions may be? Yes, it is an actuary and how "lovely" was my friend to have likened the actuarial profession to the dinosaurs. We might be rare but we are not extinct!

"Smart Info" interviewed our current ASM president, Mr. JJ Lee



"You are Like a Dinosaur!"



(in his pink shirt!) who gave some insightful information on what it takes to be an actuary. Here are some excerpts from the article:

"To be an actuary, one must not only be eloquent in math and statistics. But he or she must also have a shrewd mind."

"Once committed, one must maintain the interest and passion towards gaining the actuarial knowledge."

"Professionalism is built on the concrete of knowledge and skill, not luck."

"In the past, the actuarial profession was not very well-known as it was only limited to finance and insurance. Furthermore, the low popularity was also due to the strict requisite on professional exams."

"An actuary should have a nose for the market trend and environment as the job is the make financial sense of the

future."

And my personal favourite is -

"To be a successful actuary, one needs to sacrifice some of his or her leisure time and set the heart for continuous learning. He or she must acquire a sponge-like ability to absorb and enhance one's knowledge in different areas, as well as good communication skill."

In the article, JJ also recounted how he first set foot into this unknown but fascinating territory. He also expressed the view that actuarial examinations are one of the most difficult in the world. (Being an actuarial student who has not passed his exams for ages, I could not have agreed more!)

All in all, the interview has portrayed a well-rounded picture of an actuary and helped to create public awareness on our profession, which I think the profession is currently lacking².

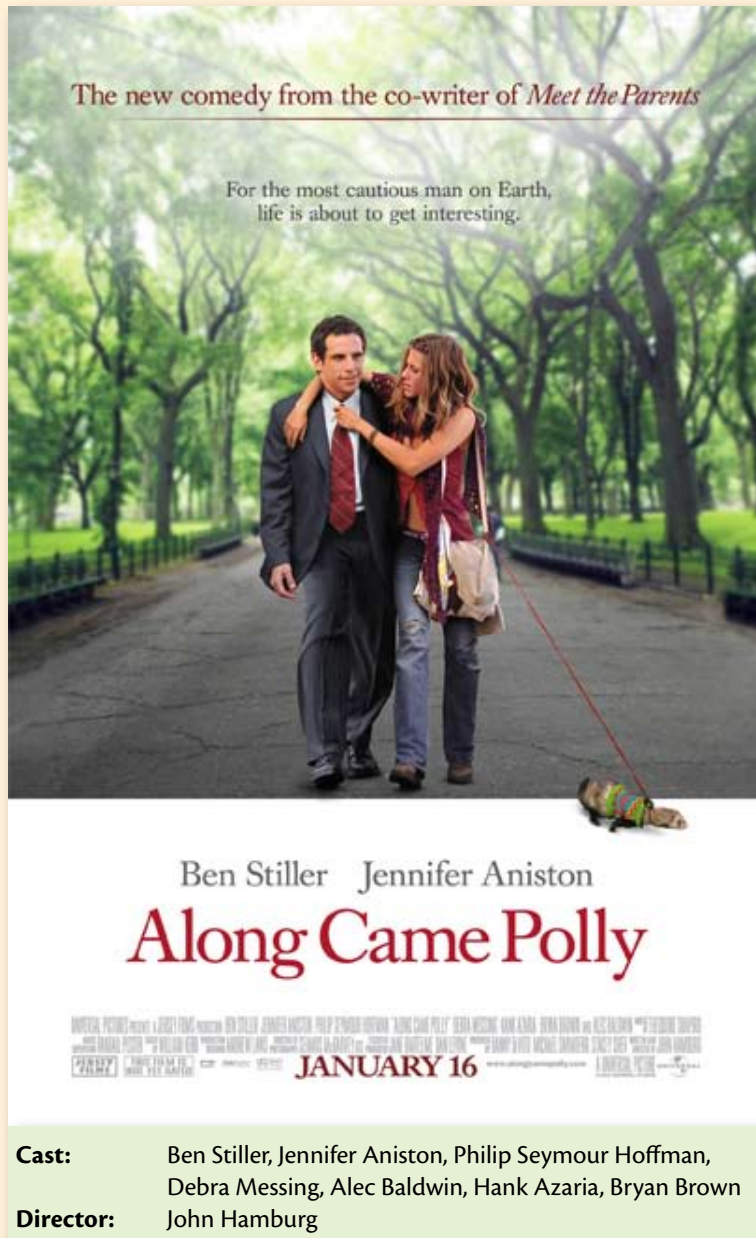
¹ The other 3 rare professions in Malaysia today are tarot fortune teller, hypnotherapist and female embalmer (beautician for the deceased).

² To find out more about JJ's interview with "Smart Info", a soft copy of the article is available for download (with permission from "Smart Info") from http://www.actuaries.org.my/new/download/smart_info_JJ_interview.pdf. Mind you, it's in Chinese.

Actuarial Anecdotes is a column that touches on anything that has even the tiniest bit of relation to the actuarial profession. In this issue we look at another movie about an actuary.

Along Came Polly or “How the Good Guy Risk Analyst Gets the Girl in the End by Using Stochastic Analysis”

By Khairul M Izad



This is one of your typical romantic feel-good-in-the-end kind of comedy, which is synonymous with Ben Stiller movies.

Ben Stiller plays the character of Reuben Feffer while Jennifer Aniston plays Polly Prince. Reuben works as a Senior Risk Analyst (or Analysis according to Polly) for a family-owned insurance company. On his wedding honeymoon somewhere in the Caribbean Islands, he walks in on his newly-wedded wife in the throws of passion with a French scuba instructor whom they just met a couple of hours before. His life then goes into a total tailspin until he meets Polly Prince, his old high-school mate. Things seem alright in the beginning except that Polly is the exact opposite of Reuben and that's when all the fun and laugh-out-loud moments begin.

Reuben, trying to be as accommodating as possible, tries his best to fit into Polly's world with some really hilarious moments. Having lived his life by taking as few risks as possible, he takes his biggest risk by wanting to have a long-term relationship with Polly. In the end, it's his "Risk Master" software that helps him make the decision, but unfortunately Polly finds out about it and isn't too happy. Thus the movie concludes with our hero making a last-minute dash to prevent the princess (Polly) from leaving him. And they lived happily ever after... Hmm... such a nice story that you have to watch when taking time off from studying for exams.

Reuben while not exactly referred to as an actuary in the movie, is probably one because of the nature of his job, which is analyzing risk for an insurance company. However, the software he uses in the movie called "Risk Master" bears no resemblance to any valuation program that I have ever seen before. Actually it looks more like a video game!

There are also other subplots as well involving a blind ferret and a once famous actor.

Overall, if you want some fun entertainment, then you might enjoy this. It's worth taking the risk checking this movie out you know...

American Education Path

by Michael Fong Weng Yu

In the June 2006 issue of the Malaysian Actuary, the Australian Education Path article was published to help prospective actuarial students learn more about the professional qualification route through the Institute of Actuaries of Australia (IAAust). As a follow up on that initiative to provide more information regarding various qualification routes, the American Education Path is outlined in this issue, covering the roadmap to Fellowship and the recent changes to the American education and examination system.

Prospective actuaries who wish to pursue the American path can achieve professional status by passing a set of examination and completing admission courses prescribed by the Society of Actuaries (SOA) or Casualty Actuarial Society (CAS).

Society of Actuaries <http://www.soa.org>

Students who seek professional qualification through SOA will normally work in areas of life insurance, health benefits system, retirement, financial and investment management. A certain number of courses must be completed to attain Associateship status, which carries the designation ASA (Associate of the Society of Actuaries). Once an Associate has fulfilled the Fellowship educational requirements, he or she will be admitted as a FSA (Fellow of the Society of Actuaries).



Effective 1 January 2006 onwards, the redesigned SOA education structure can be viewed as three components: -

Preliminary Component consists of four exams and VEE (Validation by Educational Experience) for three subjects.

Exams: Probability (P)
Financial Mathematics (FM)
Actuarial Models (M)
Construction & Evaluation of Actuarial Models (C)
VEE: Economics
Corporate Finance
Applied Statistics

Although the exams can be taken in any order, it is advisable for students to follow the sequence of P, FM, M and C above since some of the concepts in later exams build upon the content of earlier exams. VEE credits can be obtained through completion of courses offered by American universities or other educational experiences that are approved by SOA.

FAP Component (Fundamentals of Actuarial Practice) consists of eight modules and two exams.

Modules: 1. Roles of the Professional Actuary
2. External Forces
3. Risk in Actuarial Problems
4. Actuarial Solutions
5. Actuarial Models
6. Model Selection and Solution Design
7. Selection of Initial Assumptions
8. Monitoring Results and Completing the Control Cycle
Exams: FAP 1 (covers modules 1-5)
FAP 2 (covers modules 6-8)

FAP is a self-paced, e-learning course on the actuarial control cycle that is delivered and administered by electronic means. The modules are completed in sequence, and the FAP component also includes two computer-based examinations, testing students on the material learned in the eight modules.

Upon completing the Preliminary component, FAP component and Associateship Professionalism Course, students will attain the status of an Associate of the Society of Actuaries (ASA).

Specialization Component consists of an exam on Applied Actuarial Modeling and an Advanced Specialized Actuarial Practice paper. Students will choose one of the following specialty tracks.

- Finance and Enterprise Risk Management
- Health, Group Life and Managed Care
- Individual Insurance
- Investments
- Retirement Benefits

Once an Associate completes the specialization component and fulfills the other Fellowship educational requirements - Professional Development and Fellowship Admission Course, he or she will be admitted as a Fellow of the Society of Actuaries (FSA).

For students who have credits under the 2000 exam system, and wish to find out about the conversion rules after the education redesign, kindly refer to the society's website for details.

<http://www.soa.org/ccm/content/?categoryID=3822071>

Continuing Professional Development (CPD) for Faculty and Institute of Actuaries

by Loke Chang Yueh

“What do you get from an actuary working for the Mafia?
An offer you do not understand but cannot refuse”

-Anonymous-

When Gary approached me to write “a summary on CPD”, I asked, “Why me?”

He replied, “JJ suggested your name!”

I hesitated but decided that this is probably a case of “an offer I do not want but cannot refuse!” (Editor: We’re not implying JJ is in the Mafia!)

What follows is a summary in FAQ-style which I hope some of you will find useful.

When did the scheme take off?

The new Continuing Professional Development (CPD) scheme came into effect on 1 July 2006.

What is the objective of the new CPD scheme?

The new scheme aims to ensure that all qualified actuaries are competent to carry out their jobs and to give actuarial advice and also for the public and other professions to have confidence in what an actuary says or does.

How will it affect us?

The scheme will be mandatory for all working actuaries who are members of the Faculty of Actuaries or Institute of Actuaries to undertake some form of CPD activity on an annual basis.

What is the new scheme?

Under the new scheme, all actuaries will fall within one of following four categories:

CPD Categories

1. Actuaries requiring Practising Certificates
2. Actuaries working in one of the subject areas covered by specialist application syllabus, but not requiring Practising Certificates
3. Actuaries working outside categories 1 and 2 – this includes those who work in wider fields or who have moved away from actuarial work
4. Actuaries who are not working

CPD Activities

All CPD activities will fall into two categories; *verifiable* or *personally assessed*.

What activities are considered as *verifiable*?

The activity or the outcome from the activity must be observable by others. This includes attending a sessional meeting or other event where attendance is recorded; studying and passing an examination; preparing and delivering learning to colleagues.

An activity may be verifiable but it is only CPD if it “develops or maintains your professional skills”.

What activities are considered as *personally assessed*?

The activity is not observed by others and the outcome will need to be explained on the CPD Record Form.

How many hours do I need to put in to meet the minimum requirements?

Below is a table which will help you to identify your requirements.

For example, actuaries in Category 2 are required to complete at least 15 hours a year of either verifiable activities or personally-assessed activities, 10 hours of which must be relevant to their

	Category 1	Category 2	Category 3	Category 4
Minimum No. of hours of CPD	15 hours	Mix	Mix	
Verifiable	15 hours	Mix	Mix	
Personally assessed		Mix	Mix	
Hours relevant to practice area	10 hours	10 hours	Self determined	
Minimum number of entries on CPD form	4	4		
Entries relating to Technical Skills	2	2		
Professionalism skills	2 hours pa min	2 hours pa min		
Attendance at the decennial Professionalism Event (UK or Ireland)	Yes	Yes	Encouraged	

Continuing Professional Development (CPD) for Faculty and Institute of Actuaries

⇒ practice area. There should be at least four distinct entries overall with at least two distinct entries in the Technical Skills section. There is also a minimum requirement of 2 hours for activities relating to professionalism skills.

There is no minimum requirement for those in Category 4.

What is the CPD (reporting!) year?

For Categories 2, 3 and 4 the CPD year is 1 July – 30 June. For Category 1, it is the same as the dates for the Practising Certificate.

You would need to specify your category at the start of each CPD year.

Which categories do I fall into?

Most of us in Malaysia will fall into Category 2. If you are unsure or need further advice, you could send an enquiry to cpdfeedback@actuaries.org.uk.

Are the requirements relaxed for members who are practicing outside the United Kingdom?

Only to the extent that you do not have to attend the decennial professionalism event!

Where do I record my CPD?

The profession has developed an on-line recording and monitoring system which makes use of its existing database and conference booking service.

To access this page, you need to log on to the profession's website at <http://www.actuaries.org.uk>. The log-in username and password is the member's personal actuarial number (ARN) and date of birth respectively.

Once you have logged in, you will see two sets of information relating to CPD; CPD Records and CPD Declaration.

The views expressed in this article are entirely my own and in no way represent those of the Faculty of Actuaries or the Institute of Actuaries.

Actuarial Jokes

- Actuary talking: "There are three kinds of actuaries. Those that can count. And those that can't."
- Two people are flying in a hot air balloon and realize they are lost. They see a man on the ground, so they navigate the balloon to where they can speak to him. They yell to him, "Can you help us - we're lost." The man on the ground replies, "You're in a hot air balloon, about two hundred feet off the ground." One of the people in the balloon replies to the man on the ground, "You must be an actuary. You gave us information that is accurate, but completely useless." The actuary on the ground yells to the people in the balloon, "you must be in marketing." They yell back, "yes, how did you know?" The actuary says, "well, you're in the same situation you were in before you talked to me, but now it's my fault."
- Two actuaries are duck hunting. They see a duck in the air and they both shoot. The first actuary's shot is 20 feet wide to the left. The second actuary's shot is 20 feet wide to the right. The actuaries give each other high fives, because on average they shot it.
- A patient was at her doctor's office after undergoing a complete physical exam. The doctor said, "I have some very grave news for you. You only have six months to live." The patient asked, "Oh doctor, what should I do?" The doctor replied, "Marry an actuary." "Will that make me live longer?" asked the patient. "No," said the doctor, "but it will SEEM longer."
- A life actuary designed a new coverage "Senility Insurance". He expected low claims because "If you remember that you have a policy, it is proof that you are not senile."
- Actuarial bumper stickers:
 - Actuaries do it with frequency and severity.
 - Actuaries do it without risk.
 - Actuaries do it by integrating by parts.
 - Actuaries do it with models.
 - Actuaries do it with professional guidance.
 - Take a risk - marry an actuary.
 - Old actuaries never die; they just get broken down by age and sex.

Happy New Year!

from the Editorial Team