

Contents

Editorial

Message from the President

Upcoming Events

Council Update

Committee Reports

Health Insurance

General Insurance

New Members

News & Articles

General News

Article of the Month

Brainteasers

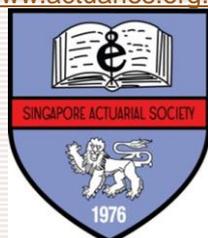
Contact

Office: 81 Clemenceau Avenue
#04-15/16 UE Square
Singapore 239917

Mail Box: Singapore Actuarial Society
Robinson Rd Post Office
PO Box 376
Singapore 900726

Patsy Lau

www.actuaries.org.sg



Editorial

This week we come to the end of the Council's year in Office. The AGM and Annual Dinner are very much part of the fabric of SAS and it will be good to see strong attendance.

My mind goes back to the informative years after I qualified when I used to attend one of the several 'Dining Clubs' in London for qualified actuaries. I know the SAS has done a good job promoting and increasing the number of social activities, but I wonder if there would be an appetite for the occasional more formal dining between actuaries in Singapore from time to time?

This month we also see the final article resulting from the SAS Symposium, where Nigel Knowles and Lee Wen Yee provide a summary of the break out group that discussed retirement solutions in Singapore. This is certainly a topical subject and should be of interest. It is a good introduction to the upcoming SAS Retirement Conference in Singapore. Thank you.

Richard Holloway

Message from the President

Last month, we had a discussion about what it means to be a SAS Fellow. This was an interesting and enlightening discussion. Moving forward into the next Council year, this issue will be looked at in more detail, with a working party being formed. I will discuss this more at the AGM on 23 March and expect email circulars.

The AGM and Annual Dinner are being held on 23 March at the Fullerton and Thai 1827 respectively. Please note that all Council seats are elected annually, so if you are interested in running, please contact myself or Raymond to find out more.

I think that SAS has had a great year (check out the Annual Report) and I hope that members feel that they have received value for their time and money. Thank you.

Jill Hoffman



Upcoming Events

Date	Event	Location	Contact
23 rd Mar 2012	SAS 36th AGM	Fullerton Hotel, 2:30pm	Patsy Lau: patsy@actuaries.org.sg
23 rd Mar 2012	SAS Annual Dinner	Restaurant 1827 Thai, 1 Parliament Lane, Level 1	Patsy Lau: patsy@actuaries.org.sg
12 th April – 13 th April 2012	SAS – LIA Retirement Conference 2012	Hilton Hotel, Singapore	ret2012@actuaries.org.sg
9 th May – 10 th May 2012	7 th Asian Takaful Conference	Marina Mandarin, Singapore	Ms Michelle michelle@asianinsurancereview.com
14 th May – 16 th May 2012	6 th Asian CFO Summit	Marina Mandarin, Singapore	Ms Loga loga@asianinsurancereview.com
18 th Jun 2012	Equity-Based Insurance Guarantees Conference	Tokyo, Japan	Ravi: kravindran@annuitysystems.com
14 th – 17 th Oct 2013	17 th East Asia Actuarial Conference	Singapore	Wil Chong: Wil.chong@allianzre.com

Council Update

Last month we had our SAS volunteers' dinner at AMARA Hotel. We appreciated our members who have served the SAS in various capacities to bring 2011 an eventful year for SAS. Indeed, we are delighted that the number of volunteers has grown from 70 in 2010 to about 90 in 2011 (i.e., close to 20% of all our members). We still welcome more volunteers to serve in the new term 2012/2013. If any of you would like to serve in any of the SAS committees this year, please contact me directly at secretary@actuaries.org.sg.

The 36th SAS Annual General Meeting (AGM) will be held on the 23rd March at the Fullerton Hotel. This is not only a time to share with our members a snapshot of all the wonderful events that we have held last year, but

also a time for our members to cast their votes to the next Council Committee who will serve us in the term 2012/2013. We look forward to seeing you there. If you are unable to attend the meeting in person, you can still cast your votes through the proxy method.

Following the AGM, we will proceed to Restaurant 1827 Thai at 1 Parliament Lane for our annual dinner, which is just a short 10 minutes' walk from the Fullerton Hotel.

We welcome any feedback and suggestions on how we can serve you better in the SAS. Please email me at secretary@actuaries.org.sg or Patsy Lau, our Administrative Executive, at patsy@actuaries.org.sg for any SAS matters.

Raymond Cheung



Committee Reports

• Health Insurance

This is the final report for the Society year 2011/12. The Health Insurance Committee had been busy with the following projects (more details will be given in the SAS Annual Report which will be distributed at the annual general meeting (AGM) on 23 Mar 2012):

- Survey of East Asian Actuarial Conference (EAAC) member countries, on the Public-Private Healthcare Financing Partnerships in these countries: the results were presented at the EAAC 2011 in Kuala Lumpur.
- SAS Forum, based on International Actuarial Association Health Section (IAAHS) Webcast on “Stochastic Modelling for Health Care Actuaries”, held on 12 May 2012.
- Health Insurance Resource Centre (HIRC).
- Analysis of Ministry of Health (Singapore) data (available on MOH website) to 2009: an article on the findings will be published in a future SAS Newsletter.
- Annual Healthcare and Financing Report 2010/11, which will be posted on the SAS website soon.

The Committee also initiated the organisation of the 3rd SAS Health Insurance Conference to be held in May

Chi Cheng Hock

• General Insurance

Dear All, just a reminder to keep the Thursday 31 May and Friday 1 June free for the 4th SAS GI Conference at Sentosa. It looks to be another great event with lots of interesting speakers. A flyer will be going out later this month with more details however a couple of highlights include the working parties made up from SAS members in the industry working together.

Topics for the working parties include: Stress Testing, Motor Insurance experience in Singapore, Technical Reinsurance and Actuarial Standards. All the Certifying Actuaries in Singapore should have received a copy of

Matthew Maguire

2012. Colin Chan and Alvin Fu and their team members are now running the show.

The Committee also conducted a Survey of SAS members on Health Insurance Involvement and Interest, the results of which were published in the Nov 2011 Newsletter. The 2012/13 Committee will act on these findings.

I take this opportunity to thank all the 2011/12 Committee members (some of whom will be staying on for 2012/13) – Roy Boo, Chen Wei Hin, Joanna Chu, Leong Siao Wearn, Gideon Tan, Samuel Tan and Yip Oi Leng – for their efforts and commitment to the Committee projects. Thanks, folks!

The 2012/13 Committee has been formed (with new members, but we do welcome more members!) and I will announce the names of the Committee members and the projects planned for the year to come in the next Newsletter, after the AGM.

See you all at the AGM!

a survey on the Singapore Stress Test Exercise and I urge you all to complete this as the working party really appreciate your efforts in completing the survey.

Also, given the recent circular from the MAS on the Actuarial Investigation Reports For General (Re)Insurers, the Actuarial Standards working party will be getting a higher profile. It is not too late to join any of these working parties so if you are interested, please let me know which one you wish to join and I will forward your name to the Chair of the relevant group.



New Members

Fellow Membership:

LOW Shih Nin, *RG Reinsurance Co*

LIM Khang Yee, *American International Assurance*

Hai Jian LIANG, *Ernst & Young*

Associate Membership:

Chun XIAO, *Aviva Asia Pacific Regional Office*

WOO Chee Chang, *NTUC Income Co-operative*

Ordinary Membership:

TAN Pei Xian, *NTUC Income Co-operative*

ZHANG Wanling Bernice, *Aon Benfield*

SIM Wei Tat Simon, *Aviva Ltd*

PUA Yeong Heng, *Nil (fresh graduate)*

Student Membership:

Nil



News & Articles

• General News

Asia Enters Bull Market

Bloomberg, 1 March 2012

Asian stocks entered a bull market yesterday after central-bank easing from the U.S. and Europe to China and Japan fueled the fastest rally in more than two years.

China Shipping Container Lines Co. (2866), which surged 163 percent, led gains since a low on Oct. 5 as efforts to prevent the spread of Europe's debt crisis and improving U.S. economic reports boosted the outlook for the region's exporters. S-Oil Corp. (010950), Korea's No. 3 refiner, led energy stocks higher as crude prices surged. Agile Property Holdings Ltd. (3383), a Chinese developer, rose 137 percent on speculation the country will ease property curbs as inflation slows.

The MSCI Asia Pacific Index fell 0.7 percent to 128.06 as of 2:43 p.m. today in Tokyo, after advancing more than 20 percent from its Oct. 5 low and entering a so-called bull market as of yesterday. The gauge has advanced the last 10 weeks, the longest such streak since its inception in 1988, as the European Central Bank expanded its balance sheet to a record, the U.S. Federal Reserve pledged near-zero interest rates and China lowered reserve ratios.

"One would have expected some kind of a pause by now because the market has been rising since mid-December," said Mark Matthews, Singapore-based head of research for Asia at Julius Baer, which oversees about \$180 billion in assets under management globally. "The major thing that put the floor on markets was the European Central Bank's long-term refinancing operations that were introduced in December. U.S. data has been pretty robust too. All these things are good. It's all good."

The rally has boosted valuations for Asian stocks to the highest level in two years relative to global equities. The MSCI Asia Pacific Index (MXAP) trades at 15.1 times estimated profit, while the MSCI All-Country World Index has a multiple of 12.7, according to data compiled by Bloomberg.

Regional Gauges Surge

The Hang Seng China Enterprises Index (HSCEI), which added 46 percent from Oct. 5, has led gains as easing inflation and slowing growth in the world's second-largest economy allowed the People's Bank of China to cut reserve requirements twice.

Chinese property companies and infrastructure stocks such as CSR Corp., a railcar maker whose Hong Kong shares jumped 151 percent, have surged as HSBC Holdings Plc, JPMorgan Chase & Co. and Goldman Sachs Group Inc. said the government has a number of tools to fine tune the economy. Hong Kong's Hang Seng Index advanced 33 percent in the period.

Japan's Nikkei 225 Stock Average (NKY) climbed 15 percent. Gains increased through February as further easing by the Bank of Japan and receding concern about financial meltdown in Europe saw the yen weaken, boosting the outlook for the nation's exporters.

Easing Lends Strength

"The global trend towards monetary easing is the major factor giving equities strength," Ayako Sera, a market strategist in Tokyo at Sumitomo Trust & Banking Co., which manages the equivalent of \$298 billion. "Corporate earnings are holding up even amid some concern about the global economy, and easing measures are pushing up shares."

Analysts are estimating that Asia-Pacific index companies will record earnings-per-share growth of 31 percent over the next four quarters, according to data compiled by Bloomberg. About half of companies that have issued quarterly reports since Jan. 9 have failed to meet analysts' estimates.

Australia's S&P/ASX 200 Index gained 9.5 percent. Korea's KOSPI Index increased 22 percent. The BSE India Sensitive Index advanced 12 percent.



"The rally looks sustainable," said Khiem Do, Hong Kong-based head of multi-asset strategy at Baring Asset Management Ltd., which oversees \$46 billion. "The recession in Europe doesn't look that severe. The U.S. economy looks OK and China isn't falling into a hard landing."

China's Manufacturing

China's manufacturing improved for a third straight month in February, signaling the world's second-biggest economy is maintaining momentum amid Europe's debt crisis and a cooling domestic property market.

Energy companies had the biggest advance among the 10 industries in the Asia-Pacific gauge as the improving economic outlook and simmering tensions with Iran spurred an increase of more than 40 percent in the price of oil since October.

South Korean S-Oil jumped 52 percent to 125,500 won in the period. Japan Petroleum Exploration Co. (1662) increased 47 percent to 3,945 yen and Santos Ltd. (STO), Australia's No. 2 oil company, climbed 27 percent. Sembcorp Marine Ltd., the world's No. 2 maker of oil rigs, jumped 72 percent to S\$5.35 in Singapore.

ECB President Mario Draghi's unprecedented emergency lending to euro-region financial institutions helped persuade investors that a credit freeze will be averted. The ECB said yesterday it will lend banks 529.5 billion euros (\$712.2 billion) for 1,092 days, topping the 489 billion euros handed out to 523

institutions in the first three-year operation in December.

Exporters Advance

Esprit Holdings Ltd. (330), a Hong Kong-listed clothier that gets about 80 percent of revenue from Europe, climbed 85 percent to HK\$17.40. Hutchison Whampoa Ltd., owner of ports in Germany, Spain and Italy, advanced 43 percent. Canon Inc., the Japanese camera maker that counts Europe as its biggest market, added 7.3 percent to 3,680 yen.

Exporters to the U.S. have also risen amid promises from the Federal Reserve to keep borrowing rates near zero through at least late 2014 to support growth. Applications for U.S. unemployment insurance benefits were unchanged in the week ended Feb. 18 at 351,000, the fewest since March 2008, Labor Department figures showed Feb. 23. Measures of consumer confidence and housing starts have also improved.

Li & Fung Ltd. (494), the biggest supplier to Wal-Mart Stores Inc., jumped 54 percent to HK\$17.80. James Hardie Industries NV (JHX), which makes most of its revenue selling home siding in the U.S., surged 36 percent to A\$7.33 in Sydney. Samsung Electronics Ltd., the world's second-largest seller of phone handsets, climbed 43 percent in Seoul.

Among stocks that fell, Elpida Memory Inc. (6665), the Japanese computer-memory maker, had the biggest decline, dropping 99 percent to 7 yen after filing for bankruptcy on Feb. 27. Hynix Semiconductor Inc., a Korean rival, has increased 51 percent since Oct. 5.

China agrees to open up auto insurance market

Reuters, 14 February 2012

U.S. Vice President Joe Biden said on Tuesday that China had agreed to an important financial sector reform by opening up its massive auto insurance market to foreign competition.

During a meeting with U.S. business chiefs and Chinese Vice President Xi Jinping, Biden said China

had indicated that it would move forward this year with tax reform to boost imports and domestic consumption, key goals sought by Washington.

"China's also just told us it will open the third party liability auto insurance market to foreign companies," said Biden, sat next to a broadly smiling Xi.

Cloud-Based Pricing Solution Targets Gap in Insurance Industry Software Market



PRWeb UK, 4 March 2012

UK software development company Kaleida has announced the release of new cloud-hosted price calculation software, RightCalc (<http://www.rightcalc.com>). The subscription-based SaaS (Software as a Service) has been designed to enable insurance companies with complex and variable product pricing to establish a universal pricing system that allows real-time price setting and distribution across multiple sales channels and administration systems.

Effective pricing is key to the success of any business, and of particular importance in the current economic climate. Many organisations are now focusing on pricing as one of their main counter-downturn strategies. PWC's Top Insurance Industry Issues report of 2011 highlights this: 'A pattern of losses over many years has built up pressure amongst insurers for changes in pricing.'

While it is well established that price management initiatives can yield an improvement in results, for many insurance companies the management of pricing is the most time consuming, system intensive task involved in realising improved profits. Even in large organisations the lack of a sophisticated pricing system often means that different pricing data is used across the various distribution channels, and pricing managers are one step removed from essential calculation and management functions.

Cath Kenyon, a director at Kaleida, believes RightCalc addresses some of these pricing issues: "Kaleida has been developing administration systems for insurance companies since 1997. This has given us real insight into the industry and highlighted the lack of solutions

that centralise pricing processes, particularly for small to mid-sized insurers."

The motivation behind RightCalc stems from the knowledge that an enterprise-wide pricing system can dramatically reduce inconsistencies and have an impact on profits. The solution's web-based user interface offers "anytime/anywhere" access for pricing managers, while the powerful calculation engine enables complex, variable pricing using a comprehensive range of rules, actions and controls. To fulfill the aim of delivering real-time pricing, the solution is capable of processing tens of thousands of calculations every second; delivering prices to multiple legacy and modern systems in a fraction of a second.

Understanding the make-up of insurance pricing and the factors that influence profits are paramount, explains Cath Kenyon: "By leveraging technology that allows a full breakdown of a variable price; from the components that make up a base price through the loadings that contribute to a final selling price, the possibilities for price targeting, price optimisation and price analysis are greatly enhanced."

Following a full application development cycle, RightCalc has been trialled, tested and implemented by Motorway Direct PLC, the fastest growing warranty company in the UK. The beta version of the new software is now available to trial for free online at <http://www.rightcalc.com>. The company hope to encourage a wide range of insurance and financial services companies to sign up and contribute in broadening the solution's real-world exposure before general release later in the year.

Actuaries set up Group to Improve Product Information

Money Marketing, 23 February 2012

An influential group of actuaries is calling on the financial services industry to re-evaluate the product information sent to customers as part of a drive to improve engagement.

The Institute and Faculty of Actuaries has set up a consumer information working party to challenge the financial services industry to think about the information consumers of financial products receive and how it could be improved.



Ideas put forward by the working party include encouraging providers to communicate progress relative to consumers' savings goals, communicating risk and reward by referring to the product's chances of achieving the savings goal, keeping communications concise and easy to digest and promoting simple rules of thumb for saving.

Better Retirement director Billy Burrows says: "The suggestions put forward by the working group are a practical and workable way of improving how we communicate to customers."

● **Article of the Month**

Singapore actuaries discuss retirement solutions

This, the last of the records of the break-out groups held during the successful Appointed Actuary Symposium held on 3 November 2011 tackles the topic of retirement.

This break-out group was tasked with discussing the issues raised in the presentation by Nigel Knowles and Wen Yee Lee earlier in the day called "Retirement Solutions in Singapore". The presentation presented three facts about retirement to stimulate the debate:

- GBP13bn - The size of the United Kingdom traditional annuity market
- 60% - The rate of mortality improvement in Singapore population statistics for Males aged 65-69 since 1980
- 28% - The number of Singaporeans with no retirement provisions in place

Perhaps unsurprisingly given the above statistics, only one of the participants was brave enough to admit having a detailed financial plan in place for their retirement suggesting that life assurance companies should at least consider the market opportunity. A full and varied discussion was enjoyed including:

1. Sizing the market opportunity

The group was in broad agreement that with an affluent and ageing population, retirement solutions are likely to become increasingly important. In addition, while the CPF Life presents a competitive product that may be hard to beat, the consensus was that there could well be a market for supplementing the CPF benefits with insurance company offerings.

2. Longevity risk – who should underwrite the risk of longevity improvements?

Echoing the earlier presentation, the group was almost unanimous in agreeing that longevity risk was difficult to model with any degree of certainty. The opinions about

what to do about this were considerably more diverse including:

- Whether it might be appropriate for annuity longevity risk would be allowed to offset the mortality risk in the risk-based capital calculations for the insurance company
- Should it be made a compulsory product for insurance companies to offer
- The use of participating annuities to share the burden of longevity risk with the policyholders in a fair and transparent way

3. Potential product solutions

Fixed annuity products were generally regarded as a good thing, but most members of the group accepted they would be unlikely to buy a fixed annuity!

However, looking at some of the alternatives, such as variable annuities and reverse mortgages, there were concerns about potential mis-selling or at least complexities relating to the sales of these products, which could hinder development beyond a niche market. The cultural barriers to reverse mortgages seen in other developed markets and referred to in the presentation were also perceived to be a barrier in Singapore to widespread adoption of this product. A number of members of the group were supportive of the participating annuity concept, both for risk-sharing and also for the purposes of managing the balance sheet of the insurance company, however, it was recognized that competing with the CPF Life may be challenging.

In conclusion, the breakout group concluded that the market will develop and presented scope for the industry and their actuaries to be creative in addressing this growing need!

Written by: **Nigel Knowles and Wen Yee Lee**



Brainteasers

#1

As I was going to Saint Ives,
I crossed the path of seven wives.
Every wife had seven sacks,
Every sack had seven cats,
Every cat had seven kittens,
Kittens, cats, sacks, wives,
How many were going to Saint Ives?

#2

You start walking north and you walk in a straight line for two kilometers. When you look at the map, you discover that you actually walked one kilometer north and one kilometer south. How is this possible?

Note: *If you have a fun brainteaser that you would like to share, please feel free to email Zi at ZiXiang.Low@milliman.com*

Answers for last month's brainteasers:

#1

Separate the coins into 3 stacks of 9 (A, B, C). Weigh stack A against B and then A against C. Take the stack with the different weight (note lighter or heavier) and break it into 3 stacks of 3 (D, E, F). Weigh stack D against E. If D and E are equal, then F is the odd stack. If D and E are not equal, the lighter or heavier (based on the A, B, C comparison) is the odd stack. You now have three coins (G, H, I). Weigh G and H. If G equals H, then I is the odd and is lighter or heavier (based on the A, B, C comparison). If G and H are not equal, then the lighter or heavier (based on the A, B, C comparison) is the odd coin.

#2

A volcano.