SAS Monthly

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Contents

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Editorial

As we enter the festive season and approach the end of the year, the SAS can look back with pride at what it has accomplished in 2011. The membership continues to grow steadily while the number of Forums and Events has increased on the back of strong demand from members (possibly helped by a larger number of people needing CPD!).

This edition has the first of three articles that will be presented summarizing the discussion within the various breakout groups that were held at the recent Appointed Actuary Symposium in November. Bob Gibson writes up the discussion on Solvency II and what it might mean for Singapore.

As you look forward to breaks over Christmas and New Year, please remember to complete your CPD declarations online!

Have a great Christmas and a prosperous New Year!

Richard Holloway

Message from the President

December is often a time for reflection, and while it is not the year end for the SAS (that is March with the Annual General Meeting), I've started thinking about some of my personal highlights from 2011.

Being re-elected President in March was an honour. Some interesting debate about the Associate status arose during the EGM – which I haven't forgotten about my pledge to have an open discussion about!

One of the highlights was meeting the students at NTU, where I gave a speech about my actuarial career. The students in Singapore, regardless of the school, always impress me so, they are bright, articulate and keep me on my toes with questions. Taking the flag with Wil Chong, for the 17th EAAC, while overwhelming with the task ahead, it is energizing to showcase the SAS. The social activities, such as the soccer match and quiz night were a lot of fun. The educational events, particularly the forums have been excellent this year. But the highlight event for me was the Volunteer's Dinner back in February. I know that for the volunteers, it is a labor of love, but it is always good to have those labor appreciated and acknowledged.

What was your highlight with the SAS in 2011? Write and tell me, I'd love to know!

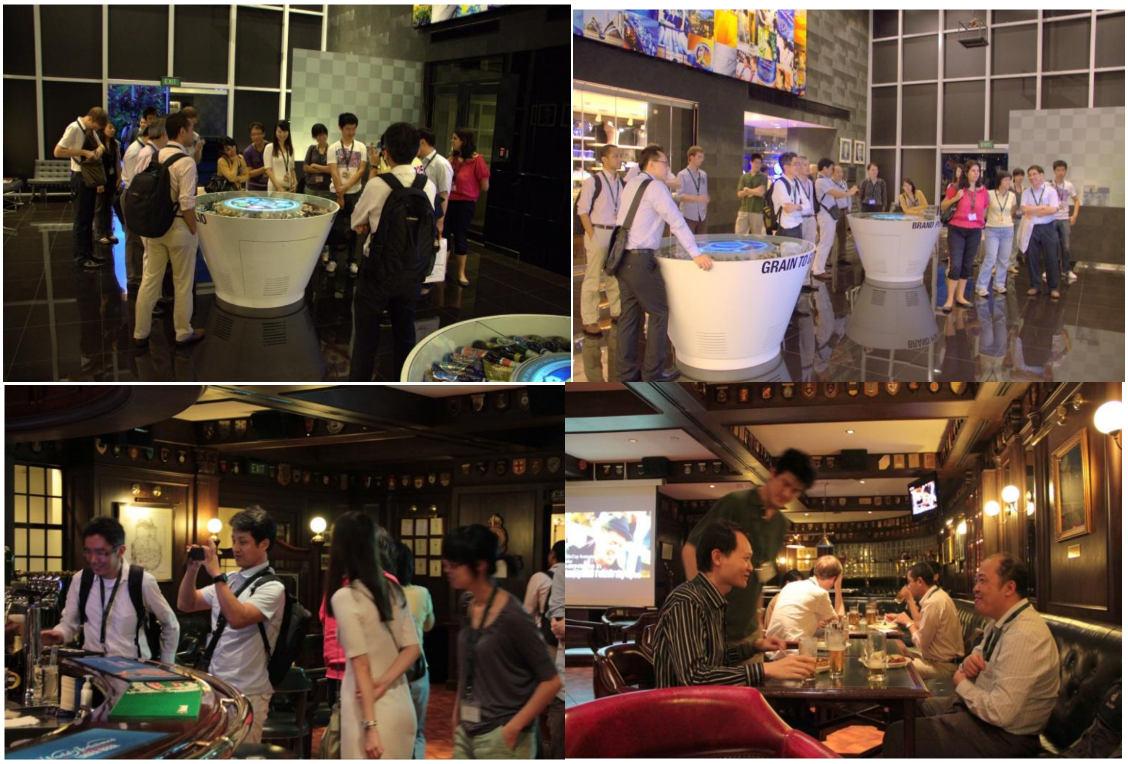
Jill Hoffman

Upcoming Events

Date	Event	Location	Contact
2nd Dec 2011	SAS Bowling Night	Marina Square SuperBowl	Annette King: Annette_king@manulife.com
7th Dec 2011	IAAHS Webcast: Health Insurers and Solvency II	http://www.actuaries.org/IAAHS/Webcast/SolvencyII/Webcast_Registration.cfm	Chi Cheng Hock: chichenghock@gmail.com
8th Dec 2011	5th Global ERM Webcast	SOA Website	SOA: http://www.soa.org/professional-development/event-calendar/event-detail/erm-asia/default.aspx
12th Dec 2011	SAS Afternoon Talk: Valuing Equity-Linked Death Benefits by Professor Elias Shiu	The Executives' Club, OCBC Centre	Patsy Lau: admin@actuaries.org.sg
30th – 31st Jan 2012	2nd Climate Change Summit for Asia's Insurance Industry	Singapore	Asia Insurance Review
15th – 16th Feb 2012	12th Asian CEO Insurance Summit	Marina Mandarin Hotel, Singapore	Asia Insurance Review
19th – 21st Feb 2012	14th Global Conference of Actuaries	Mumbai, India	Aparajita Mitra: aparajita@actuariesindia.org

Past Events

Tiger Brewery Tour



Asia Pacific Breweries opened its newly renovated doors on Friday 28th October to the Singapore Actuarial Society. The evening began with a private tour which started in room filled with retro advertisements, collectable bottles, and other memorabilia. There we were shown a short video of the founding of the company which was created in Singapore in 1932 and learnt of beer's basic ingredients like hops and barley. After this mini induction we graduated onto the impressive brewing and bottling room. The tour ended in the Tiger Tavern, a British style pub where we were able to sample the freshly brewed Tiger beer.

Annette King

Council Update

We have sent out the SAS subscription notice for 2012 to all members early this month. Please make the payment promptly before 20th January 2012 to enjoy the early bird discount. If you have not received the notice from us, please inform Patsy and I as soon as possible because our records may have been outdated. Please update your personal particulars regularly especially when you change employment so that we can keep your latest records in our SAS database.

To date, we still have a number of Fellows with outstanding CPD declaration for year 2010 and before. Please submit your CPD hours for prior years before the end of the year. Please also start filling up the CPD hours for 2011 and we hope to receive all you submission by 31 January 2012. You can either submit your CPD online in our SAS website or through written records to Patsy.

In the month of December, the events lining up for you are the bowling night and a forum on option pricing. Please visit our SAS website for more details. I wish all of you a very blessed Christmas and may you receive lots of joy, peace and love in this festive season.

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

• General Insurance

This month, the SAS hosted a forum with the MAS to provide feedback to the Certifying Actuaries and generate ideas on the direction that the Stress Test guidance notes should take for general insurers. It was a lively discussion attended by about 60 members and guests followed by further discussion over snacks at the end. Following a quick presentation of some slides from the MAS to set the scene, some of the discussion points included:

- What is the purpose of the Stress Tests?
    - To assess the probability of bankruptcy of an individual company or the comparing of companies? This would drive much of the future direction of the stress test exercise. Is the ability to compare between companies important?
    - To check the level of capital of a company or check the quality of management? This can be different.
- What is the purpose of stress to failure (STF) scenatio: a specific stress that leads to failure or a test of the sensitivities that would lead to failure?
- Should we consider a timeframe longer than one year for management actions to reinstate the CAR at a satisfactory level (similar to life insurers' stress test)?
- Is there a conflict of interest for an actuary who signs the reserves and who is also supposed to stress his own assumptions?
- Should we consider prescribed scenarios?
- Should a probability be determined for the large loss scenario? Even if the probability is not possible to quantify precisely, it would provide an indication of intent and so allow the MAS to compare between different companies.
- Recommendations by the Actuary – can these be made more specific or measurable? Should the mitigation recommendations be strengthened?
- Should we consider operational risks in the scenarios?
- For some companies, resolving stress tests can be tackled quickly and simply through a capital injection (though introducing liquidity risk if the parent company takes too long ot proceed) without any other specific and elaborated management action.

Finally an invitation was extended to join the working party looking into the stress test guidance notes (or any other working parties planned) in preparation for the SAS GI conference next year.

Matthew Maguire

There were no updates from the other committees for the month of November.

New Members

Fellow Membership:
Nil

Associate Membership:
Nil

Ordinary Membership:
Mr LEUNG Tik Long, Aviva Ltd
XU Yuezhi, Tokio Marine Asia (Upgraded from Student)

Student Membership:
Mr Wilson SUSANTO, Australian National University

News & Articles

- ## Guidance Notes

Short Note on Guidance Notes

I have been asked by the Life Committee to write a short note on Guidance Notes.

Guidance Notes are developed to help actuaries interpret various legislation. Over several years, the SAS has developed four guidance notes for the purpose of helping Appointed Actuaries (for life actuaries) and Signing Actuaries (for general insurance) carry out their statutory roles. The relevant guidance notes (which can be found on the SAS website) are numbered and entitled as follows:

- GN_G01: Investigating Policy Liabilities Related to General Insurance Funds
- GN_L01: Guidance Notes for Appointed Actuaries
- GN_L02: Guidance Notes for Appointed Actuaries on Valuation of Policy Liabilities for Life Insurance
- GN_L03: Guidance Notes for Appointed Actuaries on Participating Fund Management for Life Insurance

Over the past year or so the various committees and the Council have been pro-active in reviewing existing guidance notes and introducing new guidance notes. During a recent meeting between the MAS and SAS, the MAS commented that it appreciates the content of guidance notes and questioned how they can be 'enforced'. As an Appointed Actuary or Signing Actuary compliance with guidance notes is a requirement; they are in fact 'mandatory', and actuaries should state that their work has been performed in accordance with the relevant guidance note. Failure to comply with the guidance notes could lead to questions being raised by the MAS.

The concept is not unique to Singapore. Other actuarial societies also prepare guidance notes. The UK actuarial profession has a strong culture for guidance notes, as does India which has close to 30 guidance notes. As regulations change and as we enter into new fields it is inevitable that SAS will draft further guidance notes. It is important that these form very much part of the culture for taking on positions of responsibility for the signing actuaries in Singapore.

Written by **Richard Holloway**

• Article of the Month

Discussion session at the SAS Appointed Actuary Symposium on Nov 3 2011 on the Impact of Solvency II Style Regulation on Singapore

The Solvency II discussion group at the Singapore Appointed Actuary Symposium on Nov 3 had a lively discussion considering the impact amongst the insurance companies operating in and around the region from Singapore should MAS adopt a regulatory capital and risk governance framework similar to Solvency II.

It was recognised that Solvency II will only apply to companies with major shareholders or with interests in the EU countries, but during the course of the morning presentations, MAS had intimated that it would move ahead with a revamp of the current Risk Based Capital reporting framework, as well as introduce a set of Enterprise Risk Management principles for insurers.

While the introduction of both these items will be more than a year away, the delegates in the group discussed the potential impacts under a number of themes.

The first theme recognised that Singapore is very much a regional leader rather than a follower when it comes to financial services regulatory supervision, and the question posed was whether Singaporean insurers, such as Great Eastern, would be disadvantaged while holding risk based capital in excess of local regulatory minimum while operating for example in Malaysia or Indonesia where such a standard has not yet developed. The general consensus was yes, in the same way that the European insurers will be disadvantaged, since Solvency II moves ahead of market consistent liability RBC in other parts of the world.

The second area discussed was on the practical implications of implementation such new reporting standards. Everyone was aware of the challenges in developing new actuarial models, changing financial reporting systems, and particularly, changing a company's risk management reporting culture. The discussion group saw this as an enormous exercise, and foresaw the shortage of suitably experienced actuarial resource, especially in the area of risk quantification, as being one of the main challenges. On this practical theme the group also discussed the cultural changes needed within organisations to put risk management at the forefront of management practice, and the need for a "push" being required by Chief Risk Officers to have risk based KPIs and remuneration systems deeply embedded in their businesses.

The final question raised was on whether insurance companies should be allowed by regulators to determine their regulatory RBC on internal models. The general conclusion was that for a single country such as Singapore, a standard model would be desirable to create a level playing field, and have the practical advantage to the regulator of having a single formula to manage and measure companies by. This would not remove the opportunity for companies to have internal models for their own asset / liability and economic capital management.

In summary the discussion was interesting with a conclusive view that if Solvency II type regulation comes to Singapore, it should be widely and openly discussed in advance and a pragmatic approach be taken for implementation. This will ultimately benefit the purchasers of life assurance by providing them with a high level of security and good value for money products.

Written by Bob Gibson

• General News

Rising property prices boost Singapore households' wealth

AsiaOne, 18 November 2011

Rising property prices have boosted Singapore's households to their wealthiest, according to a report released by the Monetary Authority of Singapore (MAS).

Household wealth stood at a record high of $1.471 trillion in the three months leading up to September.

This is an increase of 8.6 per cent from $1.354 trillion in the same period last year.

Property made up approximately 50.2 per cent of household assets. Cash, Central Provident Fund balances, insurance and stocks and shares made up the other half.

Companies and banks also showed good profits, with a strong base of funding and healthy balance sheets.

However, not everything's in the pink of health for Singapore.

The global economy and financial system are at their most fragile state since the global economic crisis of 2007, warned the MAS.

MAS said that financial stability risks increased significantly in the second half of the year.

In its annual report, it also highlighted key risks facing Singapore.

These include a protracted global economic slowdown, financial contagion and pressures in the property market.

A protracted global slowdown could weigh on the domestic economy, cause corporate earnings to fall, with knock-on effects on employment and wage growth, warned MAS.

It also said that external shocks and financial contagion could trigger funding stresses and cause financial institutions to reprice risks.

This could, in turn, lead to higher borrowing costs and curtail lending, especially in foreign currencies.

While cooling measures have been implemented by the government, there is also a need to be cautious and vigilant about the property market.

MAS is monitoring developments closely and stands ready to address such concerns.

It said that Singapore's economy and financial system have been resilient, and that Singapore's financial sector had negligible exposures to the peripheral euro zone countries.

MAS expects Singapore's economy to grow below its 3 per cent to 5 per cent potential in 2012, after expanding by about 5 per cent this year.

India to become third largest life insurance market globally by 2015

Insurance Business Review, 21 November 2011

India is expected to emerge as the third-largest market for life insurance in the world by 2015, only behind China and Japan, according to a research report by BRICdata. India currently ranks twelfth among the top markets for life insurance.

The market size of the life insurance industry in India is expected to increase to USD111.9 billion in 2015 from USD66.5 billion in 2011, recording a CAGR of 14.1%. In terms of the policies sold, the numbers are expected to increase to 85.21 million in 2015 from 53.23 million in 2010, as per BRICdata.

The report lists population growth, robust economy, attractive tax benefits, rising disposable income among India's burgeoning middle class and increased awareness about insurance benefits as the key drivers in this market.

The Insurance Regulatory Development Authority's proposal to increase the limit on foreign direct investment from the present 26% to 49% and improved efficiency of distribution channels in smaller cities are also among the other factors influencing growth.

The individual life insurance segment, which comprised 74.8% of the total Indian life insurance industry in 2010, is expected to grow to 79.3% in 2015 on increased investment in individual life insurance products such as term and pension plans.

The unit-linked insurance plans (ULIPs) are expected to be fastest growing product category at CAGR of 21.2% during the forecast period.

According to the report, unit-linked pension and annuity products will offer a minimum guaranteed return of 4.5% per annum on maturity.

Insurers braced for Thai flood bill topping $10bln

Reuters, 18 November 2011

Insurers are bracing themselves for claims in excess of $10 billion after floods in Thailand disabled major foreign-owned manufacturing operations there, adding to an already record-breaking natural catastrophe bill this year.

Analysts and industry executives say it is too soon to gauge the full impact of the floods, Thailand's worst in 50 years, as the waters have only just started to recede more than three months after they first rose.

But Thailand's Office of Insurance Commission, the industry regulator, has provisionally estimated an insured loss of about $6.5 billion, according to Standard & Poor's, while insurers and brokers informally put the impact at closer to $10 billion.

"It sounds like it's going to be that sort of magnitude,, maybe even a little bit more," said Execution Noble analyst Joy Ferneyhough.

"It's still ongoing, it's still developing every day and I don't think anyone can get there to assess what's going on."

Reinsurers such as Munich Re and Swiss Re are expected to pick up a proportion of the losses from Thai and Japanese primary insurers, heavily exposed because many of their domestic corporate customers have set up operations in Thailand to escape the strong yen.

Japanese insurers Mitsui and Tokio Marine on Friday said the floods could cost them 130 billion yen ($1.7 billion) and 100 billion yen respectively.

Business interruption claims are likely to account for a big chunk of the costs to insurers, with companies worldwide hit by a shortage of components after the floods knocked out many foreign-owned makers of hi-tech gear.

RIPPLE EFFECT

"Thailand is such a critical cog in the global supply chain for some of these industries," said Gary Lynch, head of supply chain risk at Marsh Risk Consulting, part of insurance broker Marsh.

"The concentration of organisations and support organisations affected is probably greater than we've seen in any other event."

British TV decoder maker Pace on Thursday issued a profit warning, blaming uncertainty over the cost of computer hard drives after the Thai operations of its main supplier, U.S. group Western Digital, succumbed to the floods in October.

Seven major Thai industrial estates have been affected, disrupting the operations of Japanese manufacturers including Nissan, Sony, Canon, Panasonic and Honda, while across the country, a total of 14,000 businesses have closed, according to reinsurance broker Guy Carpenter.

"Flood damage can be rather severe because Thailand is not really an emerging market when it comes to industrial facilities," Ulrich Wallin, Chief Executive of reinsurer Hannover Re said last week, estimating the company's own exposure at about 100 million euros ($135 million).

The Thai floods come on top of a spate of catastrophes, including the March 11 Japanese earthquake, which inflicted a record $70 billion in losses on the insurance industry in the first half of 2011 alone, according to Swiss Re.

The Lloyd's of London insurance market has asked syndicates at its Singapore outpost to assess their exposure, a Lloyd's spokeswoman said on Friday, adding that it was too early to provide a loss estimate for the market.

One consequence of the floods has been an unexpected increase in insurance claims related to the March earthquake from Japanese manufacturers who moved to Thailand to minimise disruption after the earth tremor, according to law firm Reynolds Porter Chamberlain (RPC).

"Moving production from Japan to Thailand was a 'Plan B,'" said RPC Legal Director in Reinsurance Daniel Saville.

"The question now is whether those businesses have a 'Plan C'"

Written by **Myles Neligan**

Life Insurance Sales Slowing

Channel News Asia, 8 November 2011

Life insurance sales are growing at a slower pace in Singapore as consumers are taking less risk with their money amid the financial uncertainty.

The Life Insurance Association said sales grew 18 per cent in the third quarter from a year ago.

That is down from a growth rate of about 38 per cent in the first half.

Still, the total number of new premiums rose 8.6 per cent from the previous quarter to S$523 million.

The industry group said the fourth quarter is unlikely to match the heady growth recorded earlier in the year.

Life Insurance Association President Tan Hak Leh said: "For the fourth quarter of this year, we expect the industry to grow at 15 to 20 per cent.

"Going forward, given the protection gap that we are facing in Singapore, as well as the need to save for retirement, we would believe that the life insurance industry will continue to grow at a healthy rate."

Brainteasers

#1

A boat is at anchor. Over the side hangs a rope ladder with rungs a foot apart. The tide rises at a rate of 10 inches per hour. At the end of six hours, how much of the rope ladder will remain above water, assuming that 10 feet were above the water when the tide began to rise?

#2

What kind of cheese is made backwards?

Answers for last month's brainteasers:

#1

Consider that six statements are false. A's first statement and C's first statement contradict each other. One of them is false. C's and D's contradict each other. One of them is false. Therefore, there are four additional false statements.

Assume A is guilty. If so, A's second statement, B's second statement, and D's first statement are the additional false statements.

Assume D is guilty. If so, A's second statement, B's first statement, and D's third statement are false. This also only makes five false statements. D did not do it.

Assume C did it. If so, A's second statement, D's first and third statements are false. This again, makes only five false statements.

After ruling out suspects A, C and D, B is the culprit. B's third statement, C's second statement, and D's first and third statements are the additional false statements. This adds up to six.

#2

4 kids get an apple (one apple for each one of them) and the fifth kid gets an apple with the basket still containing the apple.