



**Singapore Actuarial Society  
Year 2019/2020  
Annual Report and Accounts**

## Singapore Actuarial Society - Profile

The Singapore Actuarial Society (SAS) was formed in 1976. At that time, the profession was little known in Singapore and there were only a handful of qualified actuaries. The adoption of the new constitution in July 1996, and the Code of Professional Conduct in November 1997, is the fruition of efforts made in the past two decades to promote the study of actuarial science and professional standards.

The SAS is the recognised representative body of the actuarial profession in Singapore, having the final authority in setting the professional standards. Following are the objectives of the SAS:

- To uphold the highest professional standards among members
- To serve the public's interests in matters we are uniquely qualified to respond on
- To promote the study, discussion, publication and research into the application of economic, financial and statistical principles to practical problems, the actuarial, economic and allied aspects of life insurance, non-life insurance, employee retirement benefits, finance and investment, risk management and other fields where such principles can be applied, with particular reference to Singapore and ASEAN region
- To assist students in the course of their actuarial studies
- To further the professional development of actuaries, and
- To foster and encourage social relationship among members.

**“IT IS REMARKABLE THAT A SCIENCE WHICH BEGAN WITH  
THE CONSIDERATION OF GAMES OF CHANCE SHOULD  
BECOME THE MOST IMPORTANT OBJECT OF HUMAN  
KNOWLEDGE”**

*PIERRE SIMON,*

*MARQUIS DE LAPLACE (1749-1827)*

*ANALYTIC THEORY OF PROBABILITIES*

Our office is located at 163 Tras Street, #07-04 Lian Huat Building, Singapore 079024. Please visit our website ([www.actuaries.org.sg](http://www.actuaries.org.sg)) for more information.

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## President's Message

Receiving the baton from Matthew as President of the SAS is a great honor as well as a heavy responsibility. Solid foundations have been set in a sustainable fashion over the past few years, notably on operational matters. On this basis, I first asked the new Council to think and define our strategy for the future: where the SAS should focus and develop. The responses were varied but could be classified into three streams as follows.

Let me quote our constitution to define the first stream: "serve the public interest by promoting the study, discussion, publication and research". More can be done on either solicited, via response to consultation papers, or unsolicited ways. In particular, we can be proud that a group of volunteers has written an excellent paper on Long Term Care. The SAS was mentioned in the CareShield Life and Long Term Care Bill during a Singapore parliament session last year, whereby the speech was made by Nominated Member of Parliament Ms. Irene Quay and by Senior Minister of State Mr. Edwin Tong. Our volunteers have also contributed in papers and publications regarding RBC2, IFRS17 and mortality tables. Moreover, the SAS appeared on Channel News Asia to give professional opinion on the launch of a specific insurance product.

The second stream is about better connecting with our members, our members' employers, our volunteers, our sponsors and the public in general. I am sure that you have noticed our increasing presence in social media, showcasing the volunteering work and social activities. We hope to create more interactions between our members, to get to know one another better which in turn open doors to new possibilities. We also wish to understand our members and volunteers better: what you would like to see more, to see less, to see differently. Your constant and constructive feedback is valuable.

Last but not least, the SAS has strengthened its international presence in multiple ways. With conferences in Cambodia, Myanmar and Vietnam, the International Committee has continued to contribute in the ASEAN Education in order to promote and develop the Actuarial profession. In parallel, our activities with the International Actuarial Association (IAA) have increased, with myself and 3 other Council members attending the IAA Council meetings in Tokyo last November. It was during this occasion that we met and identified several working groups which the SAS volunteers can collaborate with. This came in time with the growing appetite of our volunteers who are keen to contribute in one way or another to the international actuarial movement. We have also raised our hand when it came to participate to the newly formed IAA Strategic Planning Committee. The SAS selected as part of the 12 associations for a 4-year mandate.

Tokyo was also an opportunity to prepare the IAA-SAS Global Health Conference to be held in Singapore, September 2020. Building on this momentum, we started voicing up a dream, which a few Council members have mumbled before: why couldn't Singapore host the International Congress of Actuaries – the most important actuarial conference globally which happens once every four years? From our conference organisation experience and our growing pool of enthusiastic and vibrant volunteers, I am convinced that we can achieve this dream.

Finally, I congratulate the organising committee of Asian Actuarial Conference 2019 and thank the speakers and sponsors. This was incontestably the event of the year for the SAS, coupled with positive feedbacks from 700+ attendees, we can only mark this as an enormous success.

To continue our mission, the contribution of volunteers remains invaluable. There are plenty of opportunities for you to lend a hand and in return, you will be enriched with new experiences and wisdom from your peers. I would also like to take this opportunity to thank all the volunteers for all the hard work and lasting impact you have made for the SAS. You are the X-factor which makes the SAS a highly respected Actuarial body.

I wish all our members a successful year ahead and I look forward to meeting everyone at one of our events – the line-up for the coming year already looks promising and exciting.

Let us continue to grow and learn from each other, while not forgetting to have fun!



**Frederic Weber**

## Vice President's Message

2019 was an exceptionally busy year for the SAS cumulating in the excellent Asian Actuarial Conference in October with more than 700 attendees from across the region and further afield. However, what is more surprising in some ways is the range of other events that the SAS has arranged in 2019: the Actuarial Career Fair, Python Machine Learning Introductory Course, Practising Certificate Seminars, General Insurance Conference, Life and Retirement Conference, Afternoon Forums, Working Parties, International ASEAN Training programs in Cambodia and Vietnam and of course the social events.

These events only happen due to the dedication of volunteers ably supported by the Secretariat - so a big thank you to all the volunteers who have given so readily their time and expertise in 2019.

I would encourage others, who have not volunteered to help the SAS in the recent past, to give some consideration to volunteering (possibly again) e.g. in presenting at an afternoon forum or joining one of the many committees. As well as meeting other SAS members, being on a committee often provides experiences which are outside of the regular Singapore office actuarial role, and the learnings may be useful in your subsequent career!

Of course, as well as the practice area committees there are other support committees e.g. Educational and Careers Committee, Social Committee and Communications Committee which are looking for volunteers.

The Operations Committee's role is to facilitate the smooth running of the administrative aspects of the SAS – such as membership renewals, maintaining and upgrading website, legal and tax requirements, preparation of accounts, Secretariat matters etc.

With the growth in members, activities and more demanding regulatory environment, we hired Mr. Chi Cheng Hock as a part-time Executive Director. In 2019, Mr. Chi felt it was time for him to step-down from the role as he could see that the demands of the role were such that it required a full-time Executive Director and he was unable to provide that level of commitment given his other commitments. In October 2019, the SAS hired its first full-time Executive Director, Ms. Cecilia Pay, to continue the work that Mr. Chi had started in building the administrative and operational infrastructure. I would like to thank Mr. Chi for what he has achieved over the last two years.

Unfortunately, Ms. Pay resigned in January and I also would like to thank her for what she has achieved during her time as Executive Director.

As the President mentioned last year “most members may overlook the intricacy of this type of work”, but one of the large projects over the last year has been upgrading the SAS website to make it more secure – which involves hiring the appropriate contractor, specifying requirements, negotiating costs, user acceptance testing, implementing and inevitably dealing with day 2 issues (as all who have been involved in a new product launch within a life insurer will be very aware). This was performed by the Secretariat (with help from Esther Huang as Webmaster) in parallel with all the external events! After many years on the Council and as Webmaster, Esther has decided to step down from these roles and I would like to thank her for all her valuable services on the Operations Committee, not just as the Webmaster but the general support over many years.

One of the key priorities now is to use the new website to automate the SAS processes e.g. members paying for events via PayNow on the SAS website and have receipts generated automatically. Mr. Chi is co-ordinating these developments.

Finally, I wish all our members a successful year ahead and I would hope to meet you at some event during the year whether it is one of the more regular events/conferences or perhaps the IAAHS-SAS Joint Health Conference in September 2020.



**Frank Devlin**

## SAS Council Structure

The SAS is a non-profit organisation registered with the Registrar of Societies. It was founded in 1976 and is governed by the SAS Constitution (Revision March 2018).

The SAS is governed by a Council which is to be composed of a minimum of seven and a maximum of fourteen elected or co-opted members and one Ex-Officio member. All members of the Council shall be Fellows or Associates.

The SAS Council consists of the following:

- The President
- The Vice-President
- The Honorary Secretary
- The Honorary Treasurer
- Up to 10 other elected (or co-opted) Council Members
- An Ex-Officio Member

The President, Vice-President, Honorary Secretary and Honorary Treasurer form the Executive Committee, and together with the Council members are responsible for defining the SAS strategy and vision, and overseeing its performance.

## 2019/2020 Council Members

The SAS Council meets once a month and at least half the members of the Council shall be present to constitute the quorum. During the Council meeting, membership applications are considered and approved, as well as the committee chairs present their respective reports for discussion and deliberation. Following are our respected Council members for the year 2019/20:



## Overview of the Council Year 2019/20

The SAS Council had yet another exciting year, deliberating and discussing ideas to further the growth of actuarial profession in Singapore. This year also saw five first timers to the SAS Council, namely Harry Lee (Chair – Life Committee), Frederic Boulliung (Chair – Data Analytics Committee), Zhou Erjie (Chair – Education & Career Committee), Li Xue (Honorary Treasurer), and Anuj Behl (Honorary Secretary). At the start of the year, led by the newly elected President, Council laid out the strategy and vision for the SAS for 2019/20. This was followed by the regular Council meetings, at least once every month, to receive the Practice and Support committee reports, as well as make key decisions, including membership approvals for the year.

One of the key achievements this year was hosting the 22<sup>nd</sup> Annual Actuarial Conference (AAC), which was held in Sentosa from October 21-24, 2019. The theme for the conference was “Crazy Responsive Actuaries” taking action to secure the future in our fast changing world was widely accepted, with more than 700 delegates from across the world participating in the conference.

With the guidance and support from the Council, we went on to significantly strengthen our international presence. With conferences organised in Cambodia, Myanmar and Vietnam, we contributed to promote and develop the actuarial profession across ASEAN. Further, we successfully organised a number of events for our members, providing them with learning, as well as networking opportunities.

During the Council year, we successfully organised more than twenty events, ranging from a wide variety of topics, including Introductory Python Machine Learning Course, Practising Certificate Seminars, Joint Professionalism Skills training, Life Insurance and Retirement Conference, Laser Tag, F1 Karting and Quiz Night etc. We hope that these provided sufficient learning, as well as networking opportunities to our members.



### AGM & Conferences

Pre-AGM Forum & Dinner 29 March  
GI Conference 30 May  
Life & Retirement Conference 15 Aug  
Asian Actuarial Conference 21-24 Oct



### Forums/Talks & Training/Workshops

SAS Forum on Development of the IAIS Insurance Capital Standard V2 13 May  
Joint Professional Skills Training 25 Jun  
Thinking Fast & Slow Talk 26 Aug  
Applied Behavioural Finance 12 Sep  
Cyber Risk workshop 31 Oct  
IFRS 17 GI Working Party Paper 17 Jan



### Data Analytics and Practicing Certificate

Machine Learning Course 4 Apr  
9<sup>th</sup> Practice Certificate 29 May  
Applied Behavioral Finance 12 Sep  
Data Analytics 22 Nov



### Social Events & Outreach Programs

Career Fair 13 Feb  
Tiger Brewery 17 May  
Laser Tag 28 Jun  
F1 Karting 30 Aug  
Quiz Night 27 Sep  
NTU Networking Night 22 Oct  
Virtual Reality 15 Nov  
UWCSEA Career Fair 16 Nov

The SAS Council, current and incoming, will continue to support the development of the actuarial profession in Singapore, through organising conferences, seminars, workshops, trainings, group discussions, afternoon forums and career fairs. Our focus will be to bring light to areas and topics that are important to the actuarial profession, including and not limited to retirement policy, public health, longevity planning and explaining potential insurance gaps.

The SAS Council would also like to express their gratitude and thanks to all the volunteers, whose dedication was key for the SAS to organise so many successful events during 2019/20. We would also encourage others, who have not yet volunteered to come forward, and contribute towards the betterment of the profession. Looking forward to another wonderful Council year in 2020!



## Honorary Secretary's Message

Personally, 2019 was a particularly meaningful year, when I took over the responsibilities as the Honorary Secretary of the SAS. Early days in the role, and it was amply clear that there is more than meets the eye. I must admit that a lot of work, effort and dedication, mainly by volunteers and the Secretariat team goes behind the scenes, to make events, conferences, even smooth running of the SAS itself, a success.

The year itself, was a particularly busy one, with a number of initiatives going in parallel. On one hand, we organised twenty plus events, which included a successfully conducted Asian Actuarial Conference with more than 700 attendees, and on the other hand we successfully delivered on improving a number of back-office related processes, the biggest one of which was the website migration to a more secure platform. Together with the support from the Secretariat team and the Operations Committee, we also started beefing up the SOPs for different processes at the SAS, so as to enable an easy transfer of knowledge between the team members.

Ensuring correct and up-to-date membership database was also one of the key initiatives for this year, where we wanted to migrate from an offline database, to an online database, with the membership information obtained directly from the SAS website. Considerable progress was made on this front, and members were requested to review and update their information on the website towards the end of 2019. The updated information on the members not only help the SAS meet its regulatory/taxation requirements, but also helps us connect better with our members. Our plan is to further understand the demographics and interests of our members using an updated database, and help construct more relevant trainings and programmes. I would specifically like to thank Jiralda Wee (SAS Volunteer), Li Xue (Honorary Treasurer) and Clarice Soh (SAS Secretariat) who helped me with this initiative in 2019. In 2020, we will continue the work on arranging, automating and analysing our membership database, and will welcome any ideas from our members, as well as their time on the same.

I would like to take this opportunity to thank all the dedicated committee members and volunteers, who always go the extra mile to bring fun, thrill and success to all the SAS events and initiatives. I would encourage others, those who have not yet volunteered with the SAS, to come and be part of the extended family, and contribute back to the profession.

Personally, I would also like to extend a big thanks to my fellow Executive Committee members, and the learned Council members, to guide me through my first year as the Honorary Secretary at the SAS. Also, a shout out to the amazing Secretariat team, who behind the scenes will do a lot of heavy lifting, to help the operations run smoothly at the SAS.

Lastly, I wish all our members a successful 2020, and look forward to meeting you at one of our events!



**Anuj Behl**

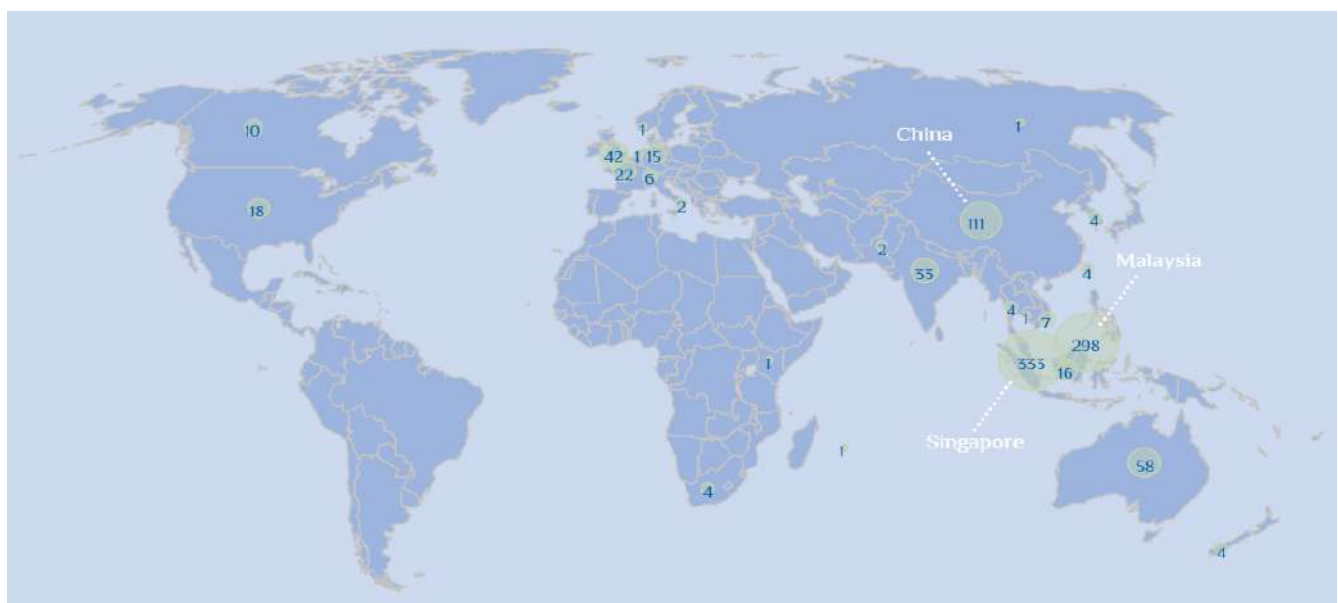
## SAS Membership

As at December 2019, the total membership for the SAS stood at 999 members. Fellows had the highest proportion amongst all classes, with 457 members. This was followed by Ordinary, Associates, Student and Affiliate, which had 340, 104, 78 and 20 members, respectively. Both Fellows and Associates saw a growth relative to prior year, which collectively amounted to c6%.

Female members comprised 35% of the total membership base, with the balance 65% being male members. Although the total membership base declined by c4%, we saw an addition of 84 new members in 2019, majority of which were to the Ordinary and Student membership classes. Overall, our membership base extends to nationals from 26 different countries. Average age for our members was at 35 years, which includes a fair mix of experienced, as well as young and upcoming actuaries.



Singaporean, Malaysian and Chinese nationalities represented the highest proportion of our membership base, collectively standing at c75%. This was followed by Australian, British and Indian, which stood at c13% of the membership base.



## New Fellows

We would like to congratulate the following members, in no particular order, who completed their examinations and professionalism courses, and attained the SAS Fellowship status during 2019-20.





<b>SAS Fellows – 2019-20</b>			
PHAN Ngoc Hung	ZHOU Erjie	HUANG Xinyi	YAP Hui San
NG Shi Qi	ONG Jiann Yuh	TER Mei Mei	TE Jia Hau
NG Yen Siang	PHUA Xi Kun	SO Lee Hong	LEONG Kuan Woh
WEE Hsien Paul	SETHIA KEERTI VAIBHAV	HU Ruo Bing	LEONG Seng Loon
HAN Rongze	Bryan TONG Mern Keit	SUN Ying	LAU Seng Kieh
CHIN Sweet Yee	Anne PAN	SHEN Yiwen	ONG Min Sion
WEN Hua	Alvin THEJAKUSUMA	TOH Jun Lin Joseph	Raymond KESUMA
AU YONG Xiao Shan	YAP Jen Ming	TAN Huey Wen	

## 22<sup>ND</sup> Asian Actuarial Conference – October 21-24, 2019

The Singapore Actuarial Society proudly hosted the 22<sup>nd</sup> Asian Actuarial Conference in Singapore, at Resort World Sentosa. The event was a huge success with more than 700 delegates attending from across the world.



### 22<sup>nd</sup> Asian Actuarial Conference 2019 Report Card

 <p><b>745 delegates</b> registered.  <b>c50%</b> of the participants from Singapore  <b>c80%</b> Senior Management Participation</p>	<p>More than <b>5,000 views</b> and impressions are 'hit' via social media platform daily during the AAC</p> 	 <p>More than <b>189 companies</b> participated and attended the AAC</p>	<p>Close to <b>30 new topics</b> and discussions were conducted by <b>70+ distinguished speakers</b> from diverse backgrounds</p> 
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The conference kicked off with “Welcome Cocktails”, which were proudly sponsored by the Society of Actuaries (SoA), on October 21, 2019. These cocktails were conducted at SEA Aquarium, Sentosa, where James Glickman, President SoA welcomed the participants. More than 400 delegates joined the event, and thoroughly enjoyed both the networking event, as well as the opportunity to be up close with over 1,000 different species of marine animals.



The “Opening Ceremony” took place on the October 22, 2019 at the Sentosa, Resort World Ballroom. A Lion Dance performance graced the opening ceremony, followed by welcome speeches by the SAS President, Frederic Weber, and Tony Leung from RGA, our Platinum Sponsor. Very interesting and informative keynote addresses were provided by Michael Spencer on Macro Economics in Asia and Dr. Aubrey de Grey on Rejuvenation Biotechnology.



An evening gala dinner was hosted to provide a networking opportunity to all participants, guests and speakers to widen their contacts globally. The theme ‘**CRAZY RESPONSIVE GALA**’ dinner was hugely attractive, and was attended by more than 500 delegates and guests. They networked, dined and danced through the night.



More than 70 speakers, from across the world, shared their expertise through a wide variety of topics, which extended to areas such as biotechnology, evolving use of big data and data analytics, disability products, cyber risk and protection.



The SAS would like to take this opportunity to sincerely thank our sponsors, speakers, volunteers and delegates, for making this event such a huge success. **We look forward to seeing you all again in 2026!**

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**Institute and Faculty of Actuaries** **Life Insurance Association Singapore**

**MEDIA PARTNER**

**ASIA INSURANCE REVIEW**

**SOMPO** **Milliman**

**PartnerRe** **PACIFIC LIFE RE**

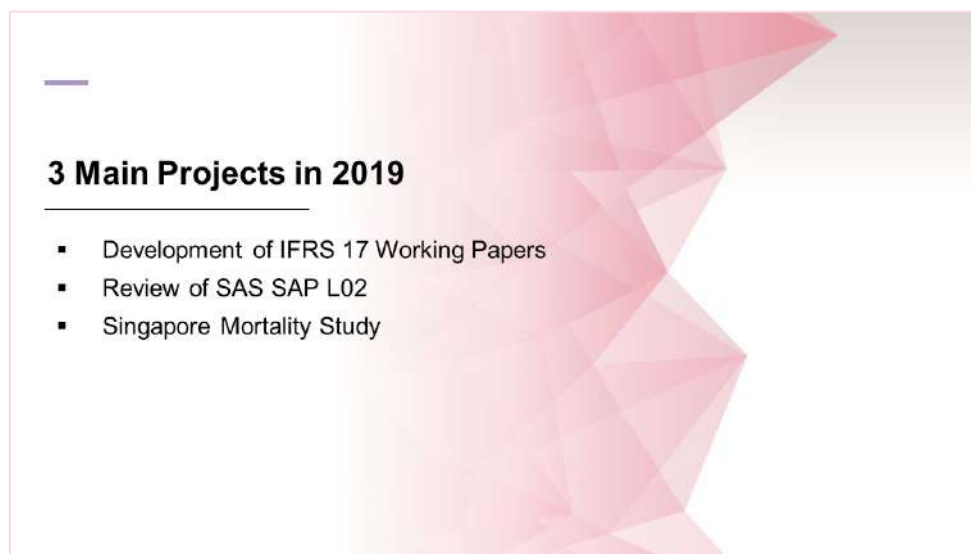
Copyright SAS Seminars, 2019

## Practice Committees' Reports

The Singapore Actuarial Society comprises of a group of Practice Committees which provides support for actuarial research and other services to the members of the SAS. For each committee, we have a Committee Chair who will lead and chair the various studies, conduct discussion groups, events, seminars, trainings and workshops for the members.

### Life Insurance Committee

In 2019, the Life Insurance Committee actively engaged the fellow actuaries in Singapore in projects and conference to help the members stay professional, stay relevant. The three main projects for 2019 were:



An IFRS17 project workgroup was set up in June 2018. Meetings were held on average once a month with participation of over thirty actuaries in the industry. Discussions involved the interpretation of the new IFRS17 standard and ways to meet the new standard's requirements in the Singapore life insurance industry context. The workgroup has been quite productive in delivering 11 working papers covering in 2019 (in addition to the 3 papers in 2018):

1. Discount Rates
2. Coverage Units
3. Par Fund and VFA Measurement
4. Expense
5. Premium Allocation Approach
6. Options & Guarantees
7. Fair Value Approach
8. Reinsurance
9. Aggregation
10. Specific Treatment for APD, Policy Loan
11. Contract Modification and Derecognition, Maturity Settlement Options

These papers have been shared with the LIA FRS117 and the ISCA IFRS117 working groups. In 2020, the workgroup will continue to update the papers as the standard develops and seek public feedback.

The Life Insurance Committee also started an RBC2 SAP working group to review the SAS SAP L02 with the implementation of RBC2 in 2020. The working group targets to complete the review and propose amendments to the SAP in mid-2020.

A mortality working group has also been formed to analyse the industry's mortality experience. The working group continues to work closely with the MAS and will be collaborating with NTU and SingStat on this matter. The working group hopes to complete the review in 2021.

In August 2019, both the Life Insurance and Retirement committees, successfully organised a flagship event – the Life Insurance and Retirement Conference with the theme “The Future is Today”. The conference hosted over 150 participants. Nine speakers from diverse background within the life and retirement ecosystem, ranging from regulators, academia, reinsurance, insurtech, the public sector, and other related disciplines shared their thoughts, knowledge and experience on how the insurance sector could play its part in tackling issues such as insurance coverage, retirement savings, long term care protection arising from the silver tsunami. Special thanks are extended to the organising committee and sponsors to make this event possible.

Mr. Harry Lee and Ms. Krystle Lim will step down as co-chairs of the Life Insurance Committee. The Life Insurance Committee would like to express sincere gratitude for their contribution over the years. The new chairs have been identified and will be formally announced in due course.

**Harry Lee, Co-Chair, Life Insurance Committee**  
**Krystle Lim, Co-Chair, Life Insurance Committee**

### Data Analytics Committee

The Committee's role is to raise awareness on analytics skills that will be in demand in the future and share knowledge on applications of analytical practices and data technologies among the SAS members and practice committees.

**The Committee has three sub-committees/task forces:**

- 1. Education Sub-Committee:** Help members to upgrade their analytical/programming skills by way of conducting machine learning courses, workshops, sharing relevant webinars, online courses and research papers.

#### **Machine Learning with Python – Introductory Course Series (5 evening sessions):**

Following the success of the first two series in 2018, another series took place in **April 2019**.

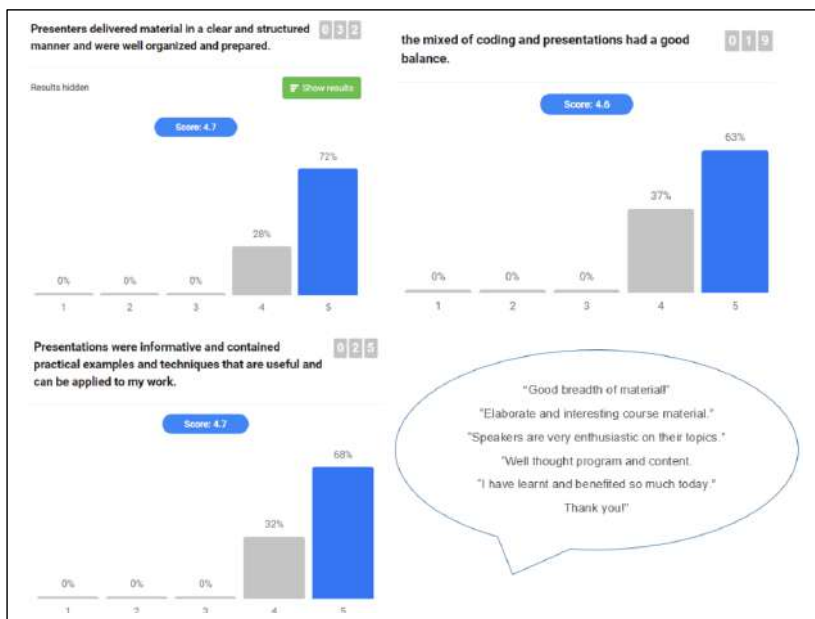
Scope: Data science methodology, Introduction to Python (Language/coding/libraries), Data manipulation/visualisation, Exploratory data analysis, Families of different machine learning techniques, Practical case study (predict Titanic survivors) with pro-con of different machine learning.

Our talented Teacher: Karthikan Selvaraj, Data Scientist at Aviva Quantum





**DATA ANALYTICS DAY 22nd of November - NUS Business Analytics Centre:** In collaboration with NUS, the committee members facilitated and presented to 31 SAS members and 14 NUS students a half day presentation + half day R computer hands off (Learn ABCs of Machine learning, how to use R for data visualisation, actuarial and statistical models with practical cases, how to build workable machine learning models in R and Introduction to Kaggle Competition).



- Project/Kaggle/Publications Sub-Committee:** Provide opportunities for members to gain practical experience in advanced predictive modelling techniques and data analytics. In 2019, the project team of DAC continued to explore ways of developing analytics skillsets of the members through practical projects:

  - The team continued to explore new public data, including weather data and LTA traffic image data, to study the effect of environmental variables in affecting road incidents.
  - During Q2 2019, a Kaggle team which consisted of committee members and past participants of Machine Learning course was formed to participate in "Jigsaw Unintended Bias in Toxicity Classification" Kaggle competition. This competition provided a good challenge and learning opportunities to the team in applying latest text mining techniques to detect toxic comments across diverse range of conversations online. We are happy to report that our prediction result was ranked at top 19% of all participants.

Contact [twchyin@yahoo.com](mailto:twchyin@yahoo.com) or [frederic.boulliung@partnerre.com](mailto:frederic.boulliung@partnerre.com) if you are interested to join this sub-committee, basics knowledge in R or Python + machine learning is needed; for instance participants to our Machine Learning courses that we provide is sufficient.

- Networking/Conference taskforce:** Network with institutions, other actuarial societies, academia and corporate innovation labs etc. with the objective of gaining access to relevant speakers, teachers, volunteers and experts who can support our Committee to achieve its objectives and help other SAS committees with their initiatives relevant to analytics.

A joint Kaggle competition involving SAS, IFoA and IAA was mooted by the committee. An initial conference call involving the interested parties from the above institutions was held in later part of 2019, to find out the best ways forward to realise this initiative. Some of the items discussed were administration, finding a dataset, sponsorship, ideal time to launch, marketing and duration of the competition. The plan is to launch the competition mid-2020.

**Frederic Boulliung, Chairman**  
**Saliya Jinadasa, Deputy Chair**  
**Data Analytics Committee**

Committee webpage: [http://www.actuaries.org.sg/big\\_data](http://www.actuaries.org.sg/big_data)

## Health Insurance Committee

The Health Insurance Committee, which is teamed up by 20 enthusiastic volunteers contributed the following notable activities in 2019:

1. **Long Term Care (LTC) and CareShield Life:** Since the government accepted the EldersShield Committee's recommendation to adopt CareShield Life, this topic has garnered huge awareness from the public from gender-distinct rates to lower starting contribution age (from age 40 to age 30). The Health Insurance Committee is pleased to have contributed to the LTC discussion with the LTC paper for public and parliamentary speech by NMP Ms. Irene Quay.
  - LTC paper for public: The working party put together an LTC paper with background on LTC, public LTC financing in number of developed countries like France and United States and actuarial pricing of LTC insurance. We are delighted to have received valuable feedback from the Ministry of Health (MoH), the SAS Council as well as the SAS members and these feedback has been incorporated in the draft [paper](#) which is now available on the SAS website.
  - Parliamentary speech by NMP Ms Irene Quay: The committee reviewed Ms Irene Quay's parliamentary speech prior to her speech on 2 September 2019. Both the SAS and the draft LTC paper were mentioned in her [speech](#).
2. **Healthcare funding sub-committee:** The working party contributed to this International Actuarial Association Health Section (IAAHS) project by sharing universal healthcare funding in a number of Asian countries. Our committee member, Albertus Setiadi, also spoke on universal healthcare system in Indonesia an [IAAHS webcast](#) in October 2019. A SAS afternoon forum on healthcare funding is also planned in 2020.
3. **Joint SAS-IAAHS Health Conference in 2020:** The SAS Health Insurance committee and the IAAHS is jointly organising a health conference themed "Augmented Actuary: Think Global, Act Local", in Singapore on 22-23 September 2020. Preparation has started in 2019, with the organising committee securing predictive health analytics expert, Mr Ian Duncan, as the keynote speaker.

I would like to extend a big Thank You to the ex-chair (Siao Wearn), all the Health Insurance committee members, the SAS Council and the SAS Secretariat for making 2019 a fruitful year for the committee. I look forward to a closer collaboration between the committee, the SAS as well as the IAAHS in 2020.

**Kay Shong, Chair, Health Insurance Committee**

## General Insurance Committee

2019-20 witnessed a number of challenging events, from natural disasters like Japanese Typhoons, Australian bushfires and most recently Covid-19. The Hong Kong protests also highlighted the level of social unrest simmering below the surface in both developing and developed countries, although the knock-on effects of many of these are still to be seen. Actuaries need to be aware there is a trend of social inflation globally which needs to be addressed, and a “higher frequency of severity”. Whilst the impact of social inflation is subdued to some extent in Asia due to a lower propensity to claim and litigiousness, we can’t remain immune forever. Actuaries need to ensure claims inflation is being appropriately captured on the reserving end, and helping the business to derive appropriate rates on the pricing end.

Singapore were the proud hosts of the Asian Actuarial Conference (AAC) this year, held at Sentosa Resorts World with the theme Crazy Responsive Actuaries – taking action to secure the future. There were almost 750 attendees from 25 countries around the globe, highlighting the inter-connected world we now live in. In combination with Life and Health, there were many engaging speakers covering a wide variety of topics such as biotechnology, leveraging actuarial insights, tapping into developing insurance markets, IFRS 17, Royal Commission lessons, AI and innovation. This uncertain world has certainly spurred on the crazy responsive spirit of the actuaries.

IFRS 17 remains the most significant working party, which is a large collaboration across a range of functions including representatives from direct insurers, reinsurers and consultants. This hot topic remains fluid with periodic amendments from the IASB as well as information and technical notes being made issued by various institutions around the world. The working party has tried to disseminate the key issues through a working party technical paper recently discussed at a SAS afternoon forum. The afternoon forum was well attended by experienced practitioners and those wanting to learn more. The working party is now working in smaller sub-groups, focusing on deep dive topics of Risk Adjustment and PAA eligibility.

We also have a working party investigating the proposed changes to the Workers Injury Compensation Act in Singapore (WICA). These changes help to address some of the underlying issues such as consistency of coverage and potential gaps in the current WICA scheme. Whilst the impact since applying from January 1, 2020 remains to be seen, the working party canvassed the changes expected to exclusions and the way the data is to be captured and reported back to the MOM. In due course the anticipated cost differences between the current and prior WICA schemes would be of interest to the MOM.

The Cyber Working Party has been working on raising awareness of Cyber risk to the actuarial community in 2019. An afternoon seminar was held in October addressing recent developments in the cyber market globally and in Singapore, and how insurers can better manage their cyber risks including management of silent cyber accumulation by guest speaker Mr. Peter Hacker, an international cyber security expert. A brief outline of the silent cyber framework presented at IFoA’s GIRO 2019 conference was also discussed at the seminar. The working party aims to continue research to broaden and share topics related to Cyber risk with actuarial relevance to the SAS members

Thanks to all committee members for their valuable contributions in representing non-life actuaries in Singapore.

**Darren Ma, Chair, General Insurance Committee**

## Retirement Committee

Welcome to 2020, a brand-new year filled with exciting opportunities and possibilities, a vantage point of perfect vision as we look back at the milestones garnered as well as look ahead at the challenges, we face in our retirement landscape.

Last year saw us, the Life Insurance and Retirement Committees of the Singapore Actuarial Society, helm with much success and positive feedback a one-day Life & Retirement Conference (LRC) on the pertinent issues in our health, retirement and insurance sector such as individual protection coverage, funding for retirement saving and long-term care protection.

"The Future Is Today" addresses both local and global risks associated with aging: increasing healthcare costs, labor shortages, lack of retirement funding for the elderly and the economic fallout from shrinking birthrates, curtailed mobility and a plateaued labor force, while engaging in detailed discussions and analysis of the pros and cons of our newly integrated CareShield Life.

It was our honor and privilege to host at our symposium several distinguished thought leaders and veteran industry practitioners of our field, amongst them Ms. Lim Ming Jing, deputy director at MOH, Mr. Chan Tze Leong, Gen Re's country manager, who touched on genetic technology, gut health and the microbiome as predictive healthcare tools and Mr. Danny Quant, principal actuary at Milliman, who held court on climate change and its potential to influence assumption setting and funding presets of DB pension plans.

Riding on the success of LRC 2019, please stay-tuned for a potential LRC 2020 this year. And due to popular requests, we might have a two-day conference instead of a one-day conference.

I am also happy to announce the collaborative partnership among the Singapore Actuarial Society (SAS), Institute and Faculty of Actuaries (IFoA) and the Ministry of Manpower (MOM) in an ongoing authorship of a White Paper on Singapore Retirement Readiness. We are heartened by the continued acknowledgement of our expertise and experience in the industry but are also continually on the lookout for new blood and fresh perspectives, so if you are interested in becoming a part of our Retirement Committee, we invite you to get in touch with us.

Last but not least, a big shout-out to my dedicated organising committee, without whom none of this would have been possible: Patsy Lau, Krystle Lim, Mark Whatley, Danny Quant, Noelle Lee, Jien Soh, Karmen Ho, Albertus Setiadi, Kyle Huang and Robin Hu. We stand upon your broad shoulders of diligence and zeal to gain a better view of the world, so thank you.

Speaking of all-encompassing viewpoints, 2020 promises to be a year of insights and inclusivity for the SAS Retirement Committee as we better prepare for our future with robust discussion of retirement policies, philosophies and frames of reference and thought. We thank you for your continued support. Happy New Year!

**Marcus Kok, Chair, Retirement Committee**

## Support Committees' Reports

Apart from the Practice Committees focusing on technical subject matters, we also have the Support Committees and their main roles is to promote networking opportunities, building a thriving community amongst the members, as well as help improve the SAS's visibility to our association's partners internationally.

### Education and Career Committee (ECC)

The ECC is a melting pot of professionals from various disciplines and student representatives from universities in Singapore, allowing us to leverage on our network and knowledge to achieve our aims of:

- Providing avenues such as workshops and forums through skillsets identification, allowing actuaries to gain value-added skills and knowledge, increasing their value and relevance in respective organisations
- Providing a platform with the vision of bridging the gap between students and the actuarial industry, increasing standards and retention of new actuaries through better alignment of the understanding and expectations of the profession.

The ECC is chaired by Erjie Zhou and it is powered by the thankless efforts of our members consisting of:

- Afternoon Forum sub-committee, chaired by Toh Yun Ying
- Universities sub-committee chaired by Zhou Minjian
- Other members who work across the sub-committees are Chen Mingyang, Li Na, Glenn Tan, Joe Lim, Goh Jing Rong, Livia Rachmad, Joel Cheung, Irfan Nuris, Tushar Kumar, Edgar Tan.

1. **Afternoon Forum Sub-committee:** The team strives to bring the most relevant topics to the table for members to up-skill and learn about happenings in the industry. These sessions were organised during the term, covering a range of topics across disciplines:



Date	Topic	Speaker
<b>March 2019</b>	Pre-AGM Forum "An IFRS 17 engine for Actuaries"	David Maneval, Willis Towers Watson
<b>August 2019</b>	Thinking Fast & Slow - for Actuaries	Gavin R. Maistry, Munich Re
<b>September 2019</b>	Applied Behavioural Finance - A Framework for Generating Investment Ideas	Douglas Isles, Australian Institute
<b>October 2019</b>	Developing and Managing a Cyber Insurance Portfolio	Peter Hacker, IFoA
<b>January 2020</b>	IFRS17 GI Forum Discussion	Dave Mehul

The ECC is constantly on the search for engaging topics and look forward to conducting even more value-adding topics to our members. We are open to members who can brainstorm interesting topics for the ECC to explore, please write to [tohyunying@greateasternlife.com](mailto:tohyunying@greateasternlife.com) [Ms. Toh Yun Ying].

**2. Universities Sub-committee:** This sub-committee has engaged with students and professionals on various platforms through the year, with the aims of:

- Promoting the actuarial profession among universities
- Raising visibility of university students to professionals and providing platforms for students and professionals to engage in
- Engaging with and matching the needs of universities, professionals and students.

**Actuarial Case Competition:** We got to see our local budding actuaries in action at the Actuarial Case Competition. This event allowed students a peak into real life scenarios and apply what they've learnt in school. It was also a good chance to showcase our young talents to the professionals and in line with our goals to develop our students. The event was sponsored by the SAS and organised by the NBS Actuarial Science Club.



**Actuarial Networking Night:** The annual event sponsored by the SAS was held on October 22, 2019. It was a good night of sharing amongst professionals and students alike. We are already looking forward to the next round to raise the profiles of actuaries within the student community in this casual networking setting! Thank you NBS Actuarial Science Club for putting the event together.



**Actuarial Career Fair, 10<sup>th</sup> Edition:** The Actuarial Career Fair is a core initiative by the ECC to bridge the gap between companies and students. This year the SAS Actuarial Career Fair was planned to be held on 12<sup>th</sup> February 2020 at the SMU school of Law. The event attracted registrants from 17 companies across a spectrum of specialisations in insurance, reinsurance, consulting and big data and more than 150 eager students from local and overseas universities.

This year was particularly challenging for the organising committee due to the COVID-19 situation. Many actions were planned; from temperature screening to reduced interaction by providing packaged foods instead of catering. Unfortunately, when the situation worsened, the committee had to make the tough call to cancel the event, in the interest of the safety and wellbeing of our participants.

Big thank you to the career fair committee for all the amazing work in this unprecedented situation!



A big shout out to our ECC volunteers!

### **Zhou Erjie, Chair, Education and Career Committee**

#### **Social Committee**

In 2019, the Social Committee; Ms. Jennifer Yong Fui Shiah [Chair], Mr. John Lian [member] and Ms. Lay Hui Peh [member] together with the SAS Secretariat team organised a total of 5 social events to engage the SAS members to widen their network and interact among the actuarial community. Two new events 'The Laser Tag with 38 members and Virtual Reality Gaming with 38 members were introduced and organised to attract participants who are energetic and adore adventure and love exploring 'virtual experience'. These two new events registrations received very good participation response and all members enjoyed and had commendable team spirit!

The F1 karting event continued to top the list, within hours, all 43 seats were fully taken up. This event continued to draw members who love outdoor and karting. There were thrills and excitements as members strive to achieve at their fastest speed on record. Great prizes were awarded to the top 3 male and female drivers on that night!

Our classic quiz night with Mr. Raymond Cheung as the quiz master had also been appealing and enjoyable. 41 members had so much fun during the night. This also helped foster team building spirit among them when solving hard quizzes. We also catered the all year favorite networking event at the Tiger brewery with 38 members unwind and chill after their hard day's work, mingling and relaxing.

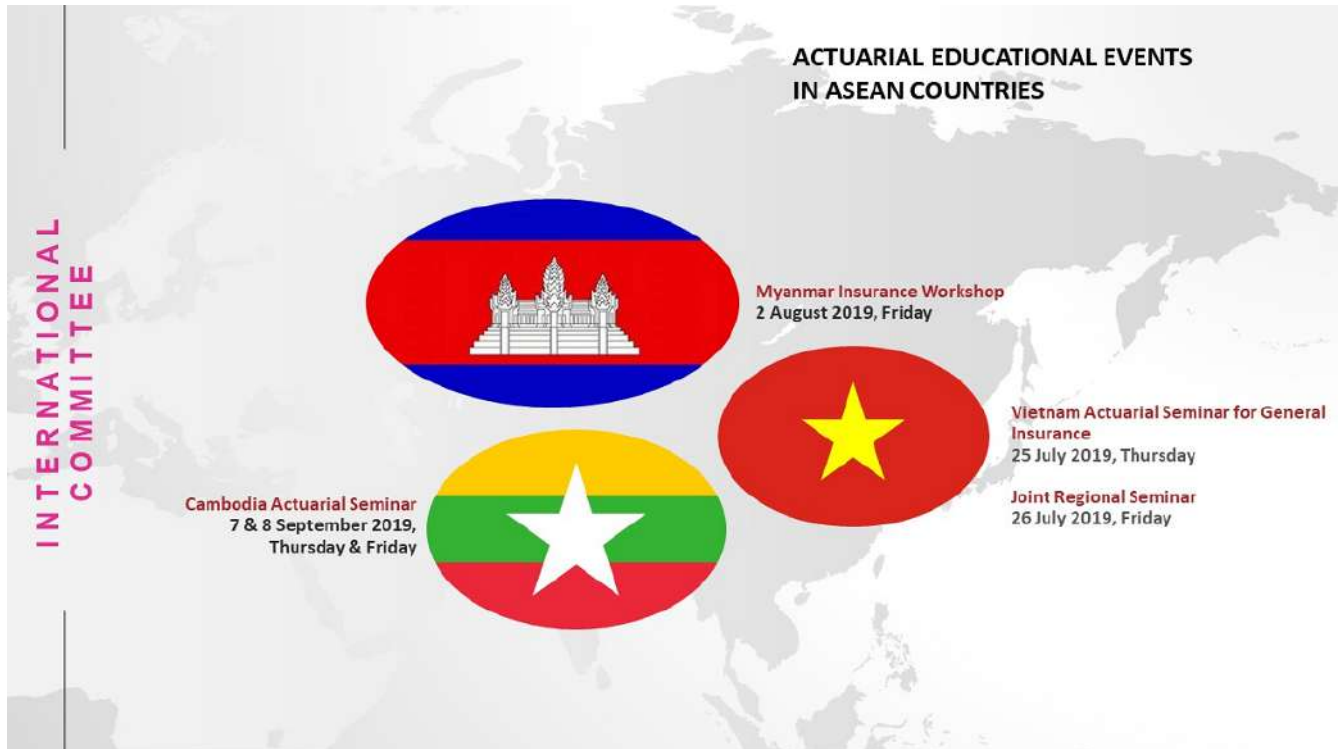
To provide more value to our members, the Social Committee will continue to brainstorm interesting activities to engage them so that we can bond the actuarial community closer. We welcome our members feedback and look forward to all your positive participation and support in 2020.

### **Jennifer Yong, Chair, Social Committee**

## International Committee

Year 2019 marked another fruitful year for the SAS International Committee as we accomplished our mission and targets to promote and develop the actuarial profession and strengthen the actuarial education initiatives across the ASEAN region.

The SAS had successfully organised and supported four Actuarial educational events, namely: Vietnam Actuarial Seminar for General Insurance 25 July 2019; Joint Regional Seminar in Vietnam 26 July 2019; Myanmar Insurance Workshop 2 August 2019; and Cambodia Actuarial Seminar 7 & 8 November 2019. This is in corroborated by 13 SAS speakers and attracted more than 350 delegates to participate.













We also received strong support and contribution from the Vietnam Ministry of Finance through the Insurance Supervisory Authority; Financial Regulatory Department of Myanmar; British Chamber of Commerce Myanmar; Insurance Association of Cambodia; Actuaries Institute Australia and the Casualty Actuarial Society. Their engagement and involvement with the SAS had uplifted our initiatives even more.



**INTERNATIONAL COMMITTEE**

**KEY ACTIVITIES**

- 
**25-26 Jul 2019**  
 Organized the 2nd Vietnam Actuarial Seminar and supported the Joint Regional Seminar in Ho Chi Minh city. SAS represented by 5 speakers.
- 
**2 Aug 2019**  
 Supported the Myanmar Insurance Workshop in Yangon. SAS speaker presented on GI Pricing and Valuation and panelist on Data Privacy.
- 
**21 Oct 2019**  
 Supported the IAA 15th Annual Asia Regional Seminar with the theme "The Professional Actuary - Actuarial Judgement".
- 
**22-24 Oct 2019**  
 Awarded bursaries to 4 delegates from emerging markets to attend the Asian Actuarial Conference (AAC). Outreached to 20 actuarial societies.
- 
**7-8 Nov 2019**  
 Collaborated with the Insurance Association of Cambodia to organize the 3<sup>rd</sup> Cambodia Actuarial Seminar. SAS represented by 7 speakers.
- 
**18-22 Nov 2019**  
 4 SAS council members attended the IAA Council and Committee meeting in Tokyo to network and collaborate with the International Actuarial professionals.

"It is nice opportunity to take part in the Cambodia seminar as it provided knowledge relevant to life and health insurance" – Delegate, Cambodia Actuarial Seminar

On behalf of the SAS, I would like to sincerely thank all the International Committee members, sponsors and speakers who had contributed their effort and volunteered their time to present at all the above-mentioned educational events. Only through their effort and strong dedication, we can come to this fruition.

Moving ahead, the International Committee will continue to combine effort and work closely with our neighboring countries and business partners to manifest and build the actuarial talent pool. We will strive and generate even more volunteering opportunities and drive educational initiatives to enhance and add values to our neighboring partners.

To reach out to us or if you are keen to be part of us, please contact [sasinternational@actuaries.org.sg](mailto:sasinternational@actuaries.org.sg)



Chua See Ju, Chair, International Committee

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## Professional Affairs Committee

In the year 2019/20, the Professional Affairs Committee successfully ran two seminars for prospective and existing Appointed and Certifying Actuaries. The 9<sup>th</sup> Practising Certificate Seminar (PCS) was conducted on May 29, 2019 and 10<sup>th</sup> PCS was conducted on November 19, 2019.

In addition, the committee worked on a number of topics, including Continuous Professional Development (CPD), SAS Membership, Constitutional Amendments and Regulations and Standards.

**Matthew Maguire, Chair, Professional Affairs Committee**

## Honorary Treasurer's Message

I am pleased to present you with the Audited Accounts as at December 31, 2019, for the Singapore Actuarial Society. For the year, the SAS achieved a post-tax surplus of \$32,966 compared to \$75,803 in 2018.

The Asian Actuarial Conference (AAC) alone accounted for \$1.01 million out of \$1.25 million total financial year income. Sponsorship income that was posted to AAC amounted to \$536,128 as compared to \$117,000 in prior year. The other major sources of revenue include subscriptions, conferences, seminars and workshops. Although with reduced scale, the organising committees still managed to achieve profits from most of these events. Job advertisements had a smaller percentage contribution to the SAS income in 2019.

AAC earnings of \$442K from ticket sales, combined with other non-AAC income, did not cross GST registration threshold of one million.

Aside from AAC, significantly increased expenses are attributed to participation in International Actuarial Association (IAA) overseas meetings which is expected to recur as the SAS became part of IAA's Strategic Planning Committee, website development, and staff costs as a result of having a full-time Executive Director and dedicated IT project manager. These are more of capital expenditures in nature to prepare the SAS for the longer term growth. Building surplus is never the ultimate goal but is the means by which we can support the SAS's greater involvement in domestic insurance industry, international actuarial community, the SAS's strategic initiatives, and committees' ventures.

As at end of 2019, the SAS had net current assets of \$587,879 held primarily in bank accounts and fixed deposit.

A Garanzia LLP continues to be the external auditor and the accounts have also been audited internally as good practice.

Implementation of accounting software is the next project in the pipeline that we are working towards. It aims to relieve Secretariat team from repetitive manual tasks for more value-adding work.

The utilisation of event manager in AAC and IT vendor in website design demonstrates our continued efforts in leveraging advanced technology and specialised service provider, so that volunteers could focus on core decision making. However, it requires additional resources to assess and mitigate associated third-party risks.



**Li Xue**

## SAS Accounts

### SAS Balance Sheet, as at December 31, 2019

SINGAPORE ACTUARIAL SOCIETY			
Balance Sheet as at 31/12/2019			all amounts in SGD
Current Assets	2019	2018	
Cash in hand	0	0	
Fixed Deposit	43,911	261,417	
Bank Balance	493,275	377,148	
PayPal Balance	806	1,014	
Rental/SP Deposit	11,030	11,030	
Receivables	90,931	11,084	
Prepayments	9,888	8,284	
Non-Current Assets			
Plant and Equipment	4,222	8,772	
TOTAL ASSETS	<b>654,062</b>	<b>678,748</b>	
Current Liabilities			
Payables	42,213	15,581	
Deferred Income (Advance Subscription Fees)	19,749	104,032	
Deferred Income (EAAC 2013)			
Accumulated Fund - Withholding tax year 2012-2015	0	0	
Non-Current Liabilities			
TOTAL LIABILITIES	<b>61,961</b>	<b>119,613</b>	
NET ASSETS	<b>592,101</b>	<b>559,135</b>	
Represented by:	<b>2,019</b>	<b>2,018</b>	
Accumulated Fund at the beginning of the year	559,135	483,332	
Advance Subscription & Entrance Fees for next year			
Advance Subscription & Entrance Fees from last year			
Prior year adjustment	0	0	
Restated	0	0	
Surplus / (Deficit) arising during the year	32,966	75,803	
BALANCE AT THE END OF THE YEAR	<b>592,101</b>	<b>559,135</b>	

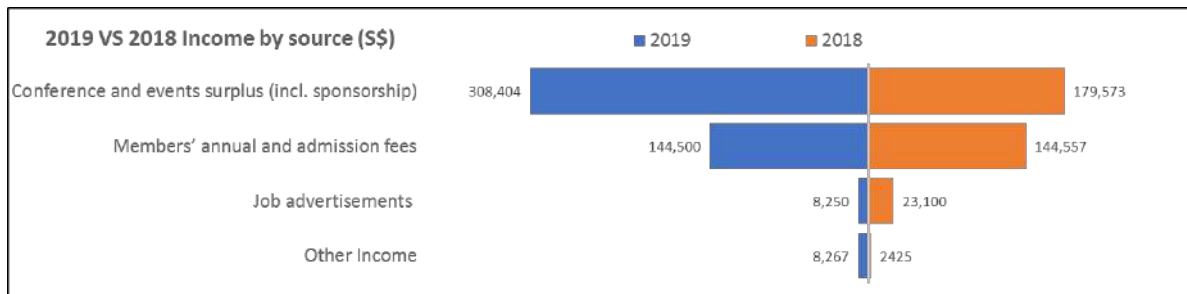
Due to rounding, numbers presented throughout this section may not add up precisely to the totals provided.

**SAS Income and Expense Account as at December 31, 2019**

<b>SINGAPORE ACTUARIAL SOCIETY</b>		
<b>Income &amp; Expense Account for the year ended 31/12/2019</b>	<b>all amounts in SGD</b>	
<b>Income</b>	<b>2019</b>	<b>2018</b>
Subscription & Entrance Fees	144,500	144,557
Job Credit Scheme	4,549	1,602
Bank Interest on Fixed Deposit	2,854	517
Sponsorship	-	117,000
Job Advertisements	8,250	23,100
AGM & Dinner	559	229
Social Events	372	188
Miscellaneous	837	305
Forums	530	2,314
Career Fair	6,597	5,250
Life and Retirement Conference (Life Insurance Conference in 2018)	27,350	112,396
Health & Retirement Conference	-	82,001
General Insurance Conference	10,095	39,899
Practising Certificate Seminar	17,237	19,026
Enterprise Risk Mgmt Conference	-	6,800
Data Analytics Committee Events	9,177	8,397
International Committee training events	814	21,135
TT Charges	100	-
2019 AAC	1,012,182	-
<b>TOTAL INCOME</b>	<b>1,246,003</b>	<b>584,716</b>
<b>Expenses</b>		
Depreciation of plant and equipment	7,109	7,142
Office Rent (Amount recognised in P&L after FRS adoption in 2019)	40,175	39,290
Office Maintenance	2,092	1,440
Admin. Staff Salaries & Benefits	243,038	166,301
Professional Service	-	43
Audit Fee	5,252	4,148
Tax Services	1,225	7,517
Postage, Stationery & Printing	1,737	1,655
Transport	124	215
Travel	-	4,268
Telephone & Internet	4,538	4,288
Website	64,253	15,168
Insurance	13,841	9,641
Bank Charges	673	57
IncomeTax	1,087	-
Tax penalty	-	(11,050)
IAA	22,224	7,870
Council & Committees' Refreshments	19,630	10,996
Sponsorship	5,000	5,000
AGM & Dinner	13,037	10,792
Social Events	8,788	10,199
Forums	4,704	8,612
Career Fair	8,436	2,559
Life and Retirement Conference (Life Insurance Conference in 2018)	19,533	68,965
Health & Retirement Conference	-	45,314
General Insurance Conference	7,880	41,381
Practising Certificate Seminar	5,459	6,045
Data Analytics Committee Events	3,629	3,053
Enterprise Risk Mgmt Conference	-	26,133
International Committee Training Events	5,297	12,009
Training	759	-
2019 AAC	699,746	-
Withholding Tax	3,771	(138)
<b>TOTAL EXPENSES</b>	<b>1,213,037</b>	<b>508,913</b>
<b>NET SURPLUS / (DEFICIT)</b>	<b>32,966</b>	<b>75,803</b>

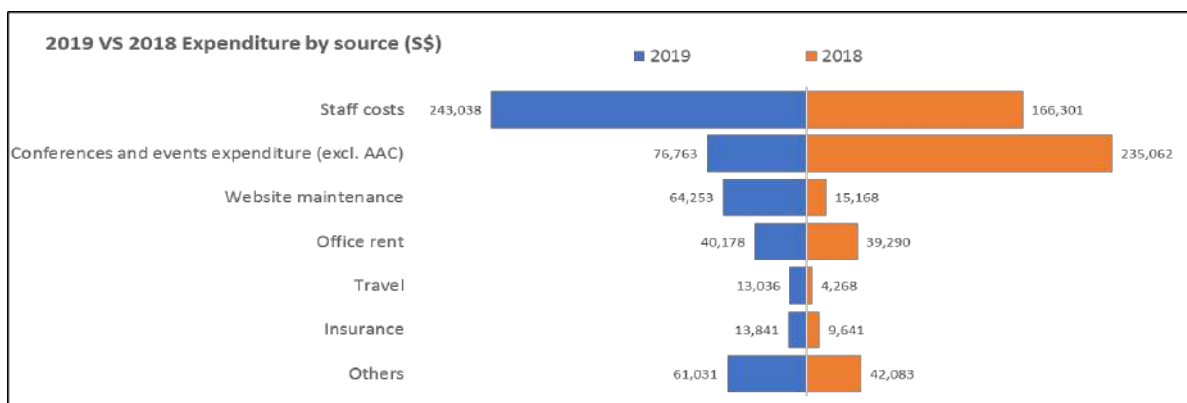
The income for the year 2019 more than doubled that of year 2018, and the credit goes to the Asian Actuarial Conference, which contributed 82% to the total. AAC income consists of \$536K sponsorship, \$442K event registration fees and \$30K Singapore Tourism Board grants. As AAC income is disproportionately large in comparison to other sources of income, the following chart shows surpluses from all conferences and events as one revenue item.

**Income (in S\$) Comparison between 2018 and 2019**



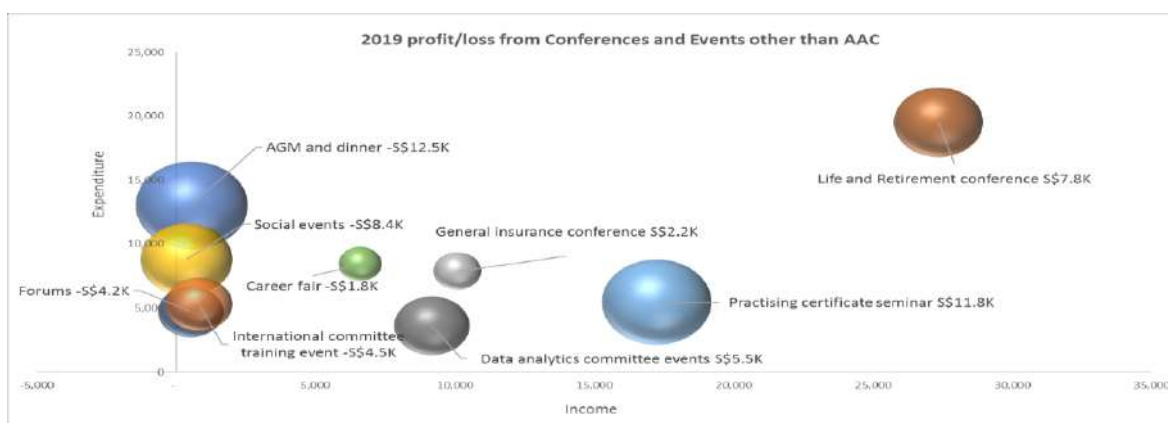
AAC had expenditure of \$700K. Other conferences and events, staff costs and website development contributed to the bulk of the expenses in year 2019. Non-AAC conference and event spending was less than one-third of that in 2018, as a result of reduced scale. Increased travelling costs were due to Council members' participation in International Actuarial Association (IAA) Committee Meetings in Tokyo. Again, AAC expenses have been excluded from the following chart for less distortion.

**Expenses (in S\$) Comparison between 2018 and 2019**



There was a significant surplus of \$312K from the AAC, and smaller surpluses in relation to the Practising Certificate Seminars (\$11.8K), Life and Retirement Conference (\$7.8K), Data analytics committee training Events (\$5.5K) and General Insurance Conference (\$2.2K). International committee training events turned to deficit from a surplus in previous year due to the absence of event-specific sponsorship.

**Surplus from Events and Conference other than AAC**



## SAS Secretariat

The SAS Secretariat team remains key in enabling the Council to deliver on the initiatives set-out at the start. The Secretariat team consists of two full time employees, namely Patsy Lau and Clarice Soh.

Patsy Lau, our first full time employee, is our Office Manager and has served the SAS for the last 12 years. She is primarily responsible for events logistics and providing administrative and registration support for the SAS' events.

Clarice Soh joined the SAS in August 2017, and is our Finance and Administrative Executive. She is primarily responsible for the SAS' finance related matters, including collection and disbursement of payments and the maintenance of the SAS membership database. Of course, both Patsy and Clarice aim to fill in for the other during holidays and other absences from the office.

### SAS Secretariat

Fostering communication and ensuring proper management and utilization of important society's administration functions.



Patsy Lau  
Office Manager

Clarice Soh  
Finance & Admin  
Executive

With the increasing presence of the SAS, as well as new initiatives laid out by the Council, the workload in the SAS has increased significantly. However, our Secretariat team continues to perform their responsibilities with utmost zeal and enthusiasm.

The Council would like to thank both Patsy and Clarice for their dedication and support on behalf of all our members.

## Honour Roll 2019/2020

The Singapore Actuarial Society would like to thank all the following members and non-members, in alphabetical order, for their contribution and dedication as the SAS volunteers in 2019/20:

Volunteer	Committee	Volunteer	Committee
Adam GEORGE	CSC	CHIN Keat Howe Gilbert	PCS
Aditya V. TIBREWALA	CASS	CHOO Joo Beng (Joseph)	HA
Akash GUPTA	AAC19	CHOO Weihao	VASs
Albertus Teddy SETIADI	AAC19/LRC19/HIC	CHUA Huai Har	LIC/SLMS
Amar MEHTA	LIC/IFRS17/ECC	CHUA See Ju	SASC/IC/IAAC
ANG Chong Wen	LIC/IFRS17	Danny Louis QUANT	SASC/RC/VASS/IAAC/IC
ANG Kim Lan	PCS	Darren MA	GIC
ANG Wan Row	LIC/IFRS17	David MANEVAL	GIC
Anuj BEHL	SASC/OC	Derek WONG Keen Loong	GIC
Arnaud FERRY	LIC/RBC2	DUAN Bingxu	LIC/IFRS17
AU YONG Xiao Shan	LIC/RBC2	ENG Cheang Giap Philip	IC/CASS/AAC19
BOULLIUNG Frederic Norbert	SASC/DAC	ENG Pingni	IC/VASS
Catherine YAP Voon Yoong	LIC/IFRS17	Felicia ER Mei Shern	GIC
CHAN Lok Wun (Sophie)	LIC/IFRS17	FOO Jake Shen Ronald	LIC/IFRS17
CHAN Tze Leong	CASS	Francis Robert DEVLIN	SASC/PAC/OC
CHANG June Teng Samantha	LIC/IFRS17	GAN Ching Siang	LIC/IFRS17
Charlene LEE Shen-Yi	LIC/SLMS	Garodia RADHIKA	LIC/IFRS17
Charles CHIU Chun Hang	LIC/IFRS17	Gideon TAN Guan Yuan	HIC
CHEAH Yen Seng	LIC/IFRS17	GOH Hseuh Li Shirley	LIC/IFRS17
CHEN Liang (Justin)	ECC	GOH Jing Rong	ECC
CHEN Ming Yang	ECC	GOH Jio Young	HA
CHEN Shao Guang	LIC/IFRS17	GOH Kok Yang	LIC/RBC2/IFRS17
CHEONG Chen Siang	LIC/RBC2	GWEE Yin Ying Cindy	LIC/SLMS
CHEUNG Kwok Kei	PAC	HAN Rongze	RC/HIC
CHEUNG Man Wai, Raymond	MIWS/GIC	HAN Yu	LIC/IFRS17
CHI Cheng Hock	RC/OC/HIC	Hitesh Motichand SHAH	SASC/RC/AAC19/HIC
CHIANG Yue Jun	LIC/IFRS17	HO Kar Men	LRC19



Volunteer	Committee	Volunteer	Committee
HU Rou Bing (Robin)	LRC19/HIC	LI Na	ECC
HUANG Bin (Kyle)	LRC19	LI Xiangting	AAC19
HUANG Chuxin Esther	SASC/LIC/IFRS17/ERMC	LI Xue	SASC/IC/OC
HUYNH Ly Duyen	LIC/IFRS17	LIM Geng Hong Samuel	AAC19/HIC
Jacky CHEW Tuck Hua	LIC/IFRS17	LIM Pei Chin (Krystle)	LIC/SLMS/LRC19
Jessica SO Pui Shan	CSC/GIC	LIM Siang Thnia	LIC/IFRS17
Jill Kimberly HOFFMAN	SASC/IC/IAASPC	LIM Tien Yung	HIC
Joel CHEUNG Chee Yin	ECCSL	LIM Tiong Wei Benny	HIC
Johan GRUNDLINGH	ERMC	LIM Wei Thong	LIC/IFRS17
John LIAN Tze-Fei	SC	LIM Zhikai Joe	ECC
Julia ASLETT	HIC	LIN Wah Man Ernest	LIC/RBC2
Kai KAUFHOLD	LIC/SLMS	LIU Qi	LIC/IFRS17
Karthikan SELVARAJ	DAC	Livia RACHMAD	ECC
Keerti Vaibhav SETHIA	HIC	LOH Yit Cheong (Victor)	ERMC
Kevin CHENG	LIC/RBC2	LOW Yik Hua	LIC/IFRS17
Kevin YAP	LIC/IFRS17	Lydia WILLIAMSON	HIC
KHO Geok Soon	LIC/RBC2	Mark WHATLEY	RC/LRC19
Klaus ZHOU	LIC/SLMS	Matthew John MAGUIRE	SASC/VASS/IAAC/AAC19 /GIC19/PAC/GIC/PCS
KOK Chan Wai (Andy)	LIC/IFRS17	Mehul Gunvantrai DAVE	GIC
KOK Ern	IC	Michael GOODWIN	CASS
KOK Mun Keat (Marcus)	RC/LRC19	Nelson TEO	LIC/IFRS17
Kugenthiran RAVENTHIRAN	ERMC	NEO Pay Peng	CASS/LIC/SLMS
LAU Seng Kieh	LIC/IFRS17	NG Aishan	LIC/IFRS17
LAWN Yin	GIC	NG Cheng Wei	GIC
LE Hong Keok	LIC/IFRS17	NG Yen Siang	LIC/IFRS17
LEE Chun Foong Harry	SASC/LIC/IFRS17	NG Yi Jun	HIC
LEE Pei Shan	LIC/IFRS17	NGOC Hung Phan	IC/VASS
LEE Shu Shing (Noelle)	RC/LRC19/HIC	Nicholas David GABRIELE	DAC
LEE Wai Yi	PCS	Nicholas SEE-TOH	LIC/IFRS17
LEE Wen Yee	RC	Nuris Irfan Bin ISMAIL	ECCSL

Volunteer	Committee	Volunteer	Committee
Oliver SMITH	LIC/IFRS17	TAN Zhi Hwee Velda	AAC19/GIC19/GIC
ONG Wei Chang	IC	TAY Eileen	ERMC
PEH Lay Hui	SC	TENG Hui Ling	IC
Philip JACKSON	PCS	TIAN Yuan	DAC
Philippe DOMART	CSC	TIM Ching Ni	LIC/RBC2
PHUA Xi Kun	HIC	TOH Jun Lin Joseph	HIC
Pierre MARIA	LIC/IFRS17	TOH Yun Ying	ECC
POH Chun Bee (Joyce)	HIC	Tola PONLU	CASS
Rachel SHIU	LIC/IFRS17	Tushar KUMAR	ECCSL
Riada DJEBBAR	ERMC	Udai GUJRATI	LIC/RBC2
Richard William HOLLOWAY	PAC/PCS	Valentin AMIOT	RC
Ryan CUSCITO	LIC/RBC2	Valerie GILLES-COEUR	ERMC
S Theven SUBRAMANIAM	AAC19	Vanessa LOU Yifan	LIC/IFRS17/PCS
Saliya JINADASA	DAC	Vitaly BELIAVSKI	AAC19/IC
Samuel TAN Teik Lee	HIC	WANG Meng Qing	LIC/IFRS17
SHONG Kay Ying	LIC/SLMS/HIC	WEBER Frederic Patrick Christophe	SASC/IAAC/PAC/OC
SOH Jien Hooi	LRC19	WEE Hsien Paul	HIC
SONG Wung (William)	ERMC	WEE Jiralda	OC
Subhash CHANDRA	CASS/HIC	WONG Soon Leong	LIC/SLMS/RBC2/IFRS17/HIC
SUN Shubian	IC	WONG Zhang Yan	ECCSL
SUN Xinda	ERMC	XIA Bingxing (Jack)	ERMC
SUN Ying (Christine)	ERMC	YONG Fui Shiah Jennifer	SC/GIC/CSC
TAN Bing Hao Edgar	ECCSL	YONG Ziling	LIC/IFRS17
TAN Jun Hwee (Joanne)	AAC19	ZHANG Wanling, Bernice	GIC
TAN Quanyie	IC	ZHENG Yanxiong Ivan	LIC/IFRS17
TAN Wei Chyin	DAC	ZHOU Erjie	SASC
TAN Yee Jiat	ECCSL	ZHOU Minjian	ECC/MIWs
TAN Yong Jia Glenn	LIC/RBC2/ECC	ZHOU Yi (Joey)	SASC/LIC/SLMS/AAC19/CC

## Legend

Abbreviation	Role
AAC19	Asian Actuarial Conference 2019
CASS	Cambodia Actuarial Seminar Speaker
CC	Communications Committee
CSC	Cyber Sub-Committee
DAC	Data Analytics Committee
ECC	Education and Career Committee
ECCSL	Education Committee Student Liaison
ERMC	Enterprise Risk Management Committee
GIC	General Insurance Committee
GIC19	General Insurance Conference
HA	Honorary Auditor
HIC	Health Insurance Committee
IAAC	IAA Council/Committee Meeting Delegate
IAASPC	IAA Strategic Planning Committee Delegate
IC	International Committee
IFRS17	IFRS17 Life Workgroup
LIC	Life Insurance Committee
LRC19	Life and Retirement Conference
MIWS	Myanmar Insurance Workshop Speaker
OC	Operations Committee
PAC	Professional Affairs Committee
RBC2	RBC2 SAP 2 Review
RC	Retirement Committee
SASC	SAS Council
SC	Social Committee
SLMS	Singapore Life Mortality Study
SPC	Sponsorship Committee
VASS	Vietnam Actuarial Seminar Speaker

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