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Under the Spotlight - Asia series - Queenie Choi

By Queenie Choi

Reading time: 3 mins

Queenie Choi is an actuary who has recently moved into the NGO space in hopes of making a difference in people's lives. Although this new role demands a different skillset, her passion and extensive experience in health will surely help her vision of helping the less fortunate in Northeast Thailand.

My favourite energetic pursuit...the latest would have to be looking, or chasing rather, after my toddler son

The last book I read (and when)... The Mission of Motherhood by Sally Clarkson, an opportunity to reflect how mothers could hold true their value and roles despite the many conflicting perspectives in today's society.

Why and how I became an actuary...I was always natural at maths in school but it was somewhat by chance that I signed up to the Actuarial program when Prof. Mike Sherris first introduced this to UNSW students. I found the nature of Actuarial work more enjoyable and stimulating than the Accounting major at the time and so it was upon graduation that I chose to embark on an actuarial career.

My work history (and greatest challenges)… I started in life insurance and shortly after qualification moved towards health insurance with hopes of contributing to the provision of affordable and sustainable healthcare cover for various demographics.

For the past 13 years I have undertaken various health roles in Australia and across Asian countries, and the topic has never stopped to fascinate me. The dynamics of health insurance and healthcare services continue to be very interesting and challenging given the interests of various parties involved, not to mention the impact from wider digital development in the industry, requiring actuaries and senior management of this business to appreciate things from various perspectives and to a command multi-disciplinary approach in order to successfully drive a sustainable model.

What I find most interesting about my current role... At the time of writing I have just started to take time off from full-time actuarial capacity, to join my husband in Thailand running an NGO that focuses on restoring hopes to the neglected children and abandoned elderly people in the rural villages of Northeast Thailand (near the Thai-Laotian border).

This new experience is entirely out of my comfort zone and will certainly demand a different skillset to my actuarial training. It is a vision my husband and I share from early on.

Northeast Thailand is one of the poorest regions in the country and due to poverty neglected children become vulnerable prey to society: teen pregnancies and marriage breakdowns are prevalent, coupled with drug abuse and prostitution, the poverty cycle continues. The Foundation we set up hopes to provide care, opportunity and instill hope to these neglected children, changing lives one at a time.

At Suwannakuha village, Northeast Thailand

What is your vision on Asia?... Asia has been and will still be the focus of growth for multinational insurers in years to come. The aging population, growing affluence in some economies and significant emerging customers in others, present a continuous demand for protection of the lives, health and properties of various demographics.

The insurer’s ability to attract and genuinely cater for the needs of these customers, young and seniors, through quality service has never been more critical. As there is a digital shift in the way services are delivered, with businesses moving to agile models, it is important that actuaries become more versatile when applying our tradition training to business problems and innovative solutions while maintaining technical veracity, and this is done amidst the growing diversity of expertise in the likes of data science, digital marketing etc.

My view on cultural differences is…I think we have generally moved towards greater appreciation of cultural differences in the past 20 years with an increase in international working mobility, business or social travels and communications.

In a work context, it may at times create frustration still however most people working in Asia should be attuned to these differences (and of course Asia itself is made of many cultures), and be able to understand sometimes it is just the way people approach and do things locally.

Whether in a business or social context, respect for the individuals and their background, will always help build rapport and collaboration. What’s more, it is only helpful if we are able to hear the local perspectives and practices such that we could apply our expertise and knowledge effectively.

The most valuable skill an actuary can possess is … translating actuarial and analytical insights into strategic solutions that deliver value to insurer, insureds and stakeholders concerned

My best advice for younger actuaries… Surely take time to explore different areas of work that will not only expand your skillset and knowledge but help you understand your style and passion for years to come… and perhaps in particular to the Asian environment, besides carrying out the job given, understand how sound decisions should be considered and made, and be able to form and stand by your own opinion.

If I could travel back in time I would…do more travelling!

I am an actuary

By Martin Mulcare

Reading time: 6 mins

This particular instalment of the I am an Actuary series highlights the diversity of career backgrounds and journeys actuaries take to become qualified. It is interesting to learn about how and when members decided to begin their actuarial journey and what opportunities that path has provided.

Brian Tu

By way of introduction, I started my actuarial pathway mainly because of a friend who had given me insights into his experience as an actuary.

He quoted "A love of mathematics is not enough to become an actuary, but one who has dreamed about it." Clearly with his inspiration,

I started my actuarial degree and that's the reason why I am here today.

After completing my actuarial degree, I decided to move back to Hong Kong and I am now working in the Product team in HSBC Insurance. This is a project-based role, which focuses on product development. With the sophisticated customer needs in Hong Kong, products are often designed in a way to combine multi-features to satisfy the customer demands. One of my projects was to include critical illness benefits into the life insurance products together with savings elements. Furthermore, I am also working on a Fintech project which is developing an online business platform to grow our businesses.

People often ask 'what makes it special to work in Hong Kong'?. Opportunities and being international are my answers. The market is growing massively with a wider range of opportunities in new products, new distributors, and new business models, which are partly due to the strong growth of the Chinese economy. Being a young actuary, I would like to explore a broader range of businesses including non-traditional actuarial fields, as well as working internationally. To conclude, my actuarial journey has just begun.

Claire Van Helden

Wow, I can now call myself an Associate Actuary (with a big 'A')!

How did I get here? I always loved animals and dreamt of being a vet – until I found out vets also had to kill animals! I also enjoyed maths and art.

Adding monetary pressure on my artistic creativity didn't sound great, so I investigated possibilities with maths and found a Forbes article placing Actuaries the second most satisfying career after Biologists.

I had no idea what an Actuary was but found out that actuaries "predict the future" by modelling and thought this might allow me to express my creativity.

So I enrolled in a double degree at UNSW (majoring in Actuarial and Maths) and moved from Newcastle to Sydney to live on campus. Juggling actuarial and college was a challenge, although it didn't stop me having fun!

While studying, I interned at ChR Consulting – a small superannuation and group risk insurance firm. This experience proved invaluable for me. After graduation, I secured a Business Intelligence role at Suncorp. Suncorp encourages self-directed learning and gives the flexibility and support to plan your own career. I started in Commercial Valuations and moved to Pricing to explore using actuarial techniques with a more strategic focus. The variety of Commercial products and the challenge to communicate to less technical stakeholders makes every day different and interesting.

I am excited by the new areas that actuaries are getting involved in, such as big data. In the future, I see myself combining my creativity with analytics to develop and implement innovative strategic insights and solutions in these areas.

Observing what my friends are doing after school and uni has made me appreciate what I do while still having a great work/life balance.

Douglas Isles

Not surprisingly my school's careers survey suggested Actuary - my grandparents (pictured with me, in 1976) met at Scottish Equitable as Actuarial trainees in the 1930s in Edinburgh. Ian Isles ultimately became General Manager (1962-1977) and on graduating in Mathematics from Trinity College, Cambridge, I joined 'ScotEq' in 1996 spending time in Marketing and Investment, becoming a Fellow of the Faculty in 1999.

Four Antipodean holidays between 1998 and 2001 to break the monotony of Scottish winters convinced me to move to Sydney in 2002. After a year with CBA, I joined Platinum Asset Management as an Investment Analyst.

In 2009, Singapore became home for my young family, and after a false start with another fund manager, I had fun helping build Standard Chartered's equities broking business. We all benefited from our time living in Asia.

In 2013 I rejoined Platinum in the newly created role - Investment Specialist. I communicate on behalf of our investment team to financial advisers in Australia and NZ. Growth overseas is likely too. Platinum is the largest retail manager of Global Equities in the local market with a strong track record of performance, based at its heart on "avoiding the crowd".

I have brought two other former Platinum analysts on board; we all enjoy supporting our unique and successful investment approach.

While not travelling for work, which is frequent, I focus on having great holidays with the family, and on having fun with the wide variety of people I have been fortunate to have met in life.

Jeremy Naar

Fifteen years ago, my first job after graduating in dual majors of Computer Science & Executive Engineering (yes that is a thing) was in the IT department of an insurance company in Paris. That job required some travel as I was involved in project implementation of new insurance systems within Europe. Back then I had never heard about actuaries until one day in Paris, sometime in 2009, while having a coffee break (a very French thing to do), the actuarial manager randomly struck up a conversation with me which got me curious about his somewhat 'mysterious' job. Three weeks later I found myself enrolling for my first actuarial subject. A year later I joined the same actuarial manager's team. Fast forward to 2014, and after presenting my research paper to a panel of juries, I became an Actuary from the French 'Institut des Actuaires'.

Today, while still working with the same company that hired me fifteen years ago - Allianz Partners - I head the Corporate Actuarial team for the Asia Pacific region from Brisbane. The challenges these days are less on systems limitations and data than the increasing complexity of communicating with very diverse and remote audiences, not only their disparate technical knowledge but also different cultures.

I was extremely pleased to attend the Professionalism Course in October and to share experiences with many attendees

from different backgrounds. The paths to become an Actuary are diverse and there are some variances between the 'old' Europe and Australia, but the goals and the values of the profession remain common.

I am simply excited not knowing what opportunities may arise next. A career journey is about embracing randomness, being curious and having coffee breaks!

Rohan Currie

On the first day of the Professionalism Course our CEO, David Bell, asked me "Are you an actuary, or a statistician?" I found myself struggling to answer.

I currently work in the National Accounts Branch of the Australian Bureau of Statistics, working with data analysis, constrained optimisation, big data and more. I love it but all through university in Perth my ultimate goal was to move to Sydney, join a data analytics firm and do some really fun maths.

However, an experience a couple of years ago made me realise that I couldn't work in a job where my primary goal was to make the rich richer - I needed to be making the world better!

Additionally, I've realised I love Canberra and so, since it appeared to me that there was no future for a new actuary in Canberra, a few months ago I decided to stop pursuing an actuarial career.

Why go to the professionalism course then? Well, it was all I needed to become an AIAA so, while I planned to never use it,

I figured why not? However, at the course I learnt two things: Non-traditional actuaries are on the rise and the Institute wants to support that; and, according to our President, Jenny Lyon, you can be an actuary in a non-central region but you need to sell what makes you different and really hook into the local actuarial community.

So, am I an actuary or a statistician? I'm choosing to embrace both, and that's part of what makes me different. I look forward to connecting with the Canberra actuarial community and exploring non-traditional actuarial roles.

Su Yin Lim

I love travelling – learning about different cultures and exploring new parts of the world. I enjoy a good workout, reading, and spending time with my family. I also happen to be an actuary! Although I never dreamed of becoming one (who does?), it's been an interesting and diverse experience so far.

My career started at a company that developed software to analyse structured and unstructured data and generate insights for banks and other large corporations. The company also developed advanced technology for lawful communications interception and surveillance for law enforcement agencies. It was here that I first gained a real appreciation for the large volume of data that exists and the role an actuary can have in our world of Big Data.

I currently develop provisioning models (reserving in actuarial terms) for Bankwest as well as validate and monitor capital and scorecard models. As part of the wider Commonwealth Bank group, I also spent some time building models under the new IFRS9 standards. Soon, I will be moving into the consulting world with Deloitte to develop business models across a range of different fields: from finance, to mining, to economics.

While I've worked on an incredible variety of projects, what I am most passionate about is making a social impact.

I volunteer at schools where students benefit from having a mentor in the industry, and would love to take this a step further by using my experience and skills as an actuary to improve the lives of others. I am grateful for all the opportunities this profession has offered me, and can unequivocally say I am proud to be an actuary.

8 financial strategies for your superannuation

By John De Ravin

Reading time: 5 mins

In this third instalment of a four-part series, actuary John De Ravin shares some of his top tips from his recently released book on personal financial strategies.

The strategies in this article are drawn from Chapter 4 ("Superannuation") of my book Slow and Steady: 100 wealth building strategies for all ages. This article covers eight of the nine strategies in that Chapter. (The ninth is "find your lost super" but if you're an actuary or an actuarial student, you're not supposed to have lost any!).

1) Choose the right superannuation fund.

Since 1992 Australians have been able to choose the superannuation fund to which their employer contributes under Superannuation Guarantee legislation. The great majority of employees simply choose their employer's default fund, but some funds are "better" than others, which is why APRA is encouraging some funds to merge with other funds, so that substandard outcomes are not imposed on their members. To evaluate whether your fund is a good one or not is not easy, but it is important; a 1% difference in annual returns (after fees) will amount to a lot of money over an entire career. A SuperGuide article by Trish Power will help you through eight steps to reviewing your existing fund. You need to take into account long-term investment performance; fees; insurance premiums and terms and conditions; and services provided by your fund to members.

2.) Make tax-deductible contributions to superannuation.

By making concessional (tax deductible) contributions to super, you effectively reduce your marginal tax rate (MTR) on that slice of your income to 15%. That means that there is a massive benefit to those who save via this medium and whose MTR is at the high end of the Australian scale. It isn't right for everyone, but there is a very strong rationale for concessional contributions for those on high MTR's and those who are close to retirement. This means that far too little use of this wealth creation opportunity is being made. For a detailed comparison of the benefits of concessional super contributions relative to applying the same after-tax savings to paying down your home mortgage, see my blog article on the subject.

3.) Make non-concessional contributions to superannuation.

You can also contribute money to superannuation without claiming a tax deduction. Why would you do this? Because superannuation is a very tax-favoured environment: tax on investment income is only 15% in accumulation phase, and nil when you convert your accumulation balance to a pension account. The new limit of $25,000 means that you can't get a lot of money into superannuation quickly. But the non-concessional limits are more generous: $100,000 a year as long as you haven't exceeded $1.6 million Total Superannuation Balance (TSB), and (assuming you haven't used the "bring forward" rule in the previous two years) you can bring forward your next two financial years' contribution limits and contribute $300,000 in the current financial year.

4.) Make spouse contributions to superannuation.

If your spouse earns less than $37,000 per year you can make a non-concessional "spouse" contribution to their accumulation account of up to $3,000 and the government provides you with a tax offset of 18% of the amount of your spouse contribution. This is a "free gift" and if the $540 benefit is invested in your own super account every year (at a nominal return after tax and fees of 7.5% in a growth fund, earning a real after-inflation return of 5%) then the amount of the accumulated benefit will be $127, 265 after a 40-year career in nominal terms and $47, 397 in real terms. Not bad for a freebie!

You can also make contributions if your spouse earns between $37,000 and $40,000 but the tax offset scales down linearly to zero over this income range.

5.) Split your superannuation contributions to your spouse.

This is a somewhat subtler strategy than the spouse contribution strategy mentioned above. In this strategy you divert ("split") up to 85% (ie. the after-tax component) of concessional contributions that have already been made to your own account to your spouse's account. You will need to apply to your employer to do this, usually in the financial year following the financial year in which the concessional contributions were made to your own accumulation account. This strategy isn't for everyone but might be worthwhile if:

1. Your spouse will reach preservation age and commence an account based pension before you so you want to maximize the balance of your spouse's account that will earn tax-free income; or
2. Your own accumulation account balance is likely to exceed the Transfer Balance Cap of $1.6 million by the time you are ready to commence a pension, whereas your spouse's account balance is not likely to exceed $1.6 million; or
3. You are older than your spouse and are likely to be entitled to some age pension so you want to shield the largest possible amount in your spouse's accumulation account until your spouse also reaches the eligibility age for the age pension.

6.) Set up a Self-Managed Superannuation Fund (SMSF).

SMSFs are not for everyone but there are significant advantages if you (and your spouse) have large superannuation balances. Rice Warner provides an interesting analysis of the fee differences between various superannuation fund options and the simplified takeaway message is:

- SMSFs with balances of $200,000 or more can provide equivalent value to industry and retail funds provided the trustees undertake some of the administration.
- SMSFs with balances of $500,000 or more can provide equivalent value to industry and retail funds on a full service basis.

Other than the relative costs of the alternative options, the key advantage of an SMSF is greater control over your fund and its investments and the key disadvantage is that to run your own SMSF requires a level of time commitment, investment skill and knowledge of the legal environment. You are the trustee of your own fund and must comply with superannuation regulations and trustee legal obligations; you can get some assistance from your SMSF administration provider but you have the final responsibility.

7.) Establish a corporate trustee for your SMSF.

A corporate trustee entails additional costs (for registration of the corporate entity and fees for annual ASIC returns) but saves significant effort and cost when a trustee is added or removed from the fund. When a trustee is added or removed, the legal title of all fund assets needs to be transferred to the new trustees. There are also some minor advantages of a corporate trustee (in relation to liability of the trustee if sued, and in relation to penalties for administrative breaches of superannuation regulations: a single penalty applies to a corporate trustee but the same dollar penalty amount would apply to each individual trustee).

8.) Buy life insurance through your superannuation fund.

In one comparison that I performed in the book, the cost of life and TPD insurance bought through a large industry superannuation fund was 40% to 50% of the cost of life and TPD insurance bought from retail insurers. This is a very significant consideration but there are some other factors to be considered. For example:

- if the benefits will not be paid to a spouse or dependant, some tax may be payable if you buy cover through superannuation;
- individual death and TPD cover will be renewable beyond the age when your fund's standard life cover expires;
- the default life cover in many funds is funded by a fixed dollar premium per annum and therefore your sum insured will automatically reduce as you get older unless you take out additional cover, to which underwriting may apply;
- suicide exclusion clauses or pre-existing condition clauses may impact your benefits if you switch covers;
- and finally, your cover through a super fund is usually contingent on the payment of the insurance premiums and if payment ceases (for example because you lose your job) then cover may cease without you receiving explicit notice of cessation of cover.

You can download a free list of all 100 strategies in Slow and Steady from the book's website.

Read the the second instalment '10 financial strategies for wealth accumulators' and first instalment '10 financial strategies for teenagers and young adults'.

ACT CTP Scheme Reform: An Experiment in Democracy

By Geoff Atkins

Reading time: 3 mins

The ACT government believes that the current ACT CTP scheme can be improved. It decided to pilot a Citizens' jury to consider this issue with the community and other key stakeholders and develop a scheme that best meets the needs of all road users. Geoff Atkins was invited to be part of the jury as an expert adviser and in this article, he shares his experience with the profession.

'Deliberative democracy' is, according to Wikipedia, a process where decisions are made based on careful deliberation rather than an aggregation of votes (sounds like what a lot of actuaries do).

The government of the ACT is in the middle of a pilot project using a Citizen's Jury to consider reforms to its Compulsory Third Party insurance scheme. Peter McCarthy and I have been fortunate to be engaged to assist with the process, and have been enjoying a fascinating experience. You can learn more about the Citizen's Jury via this video and the Yoursay website.

The jury consists of 50 volunteers, broadly representative of the demographics of the ACT population. The deliberation process is very carefully structured and managed by professional facilitators who are completely responsible for process but at the same time are completely content-free.

So what are some of the experiences that have struck me?

Fast and slow: I thought the process would move very slowly. In some ways this has been true, but on the other hand it is impressive to see how the jury has picked up very technical information and progressed with their thinking. After four days of intense deliberation the jury has issued a report setting out what the objectives of a reformed CTP scheme should be.

Critical thinking: The facilitators did some early training on critical thinking skills, and it is amazing how powerful this has been. Their questioning and analysis of information has certainly cut through a lot of 'vested interests'.

The need for scrupulous objectivity: As an expert adviser, I felt from the very first conversations an imperative to be very careful to take a balanced and objective position. I could explain how things work and why others hold particular views or preferences, but felt it was incumbent on me to keep my own opinions out of it. Objectivity is, of course, in the eye of the beholder and in trying to provide the 'colour and movement' that the jury was after I may well have shown my prejudices.

Appetite for knowledge: Many individual jury members, and as a 'collective mind', showed a voracious appetite for knowledge and a surprising ability to absorb that knowledge and relate it to the task at hand.

Managing the lobbying process: The jury is supported by a 'stakeholder reference group' with representatives of insurers, legal profession, government, medical and health consumers as well as the two actuarial advisers. All stakeholders have had the opportunity to present written and oral material to the jury, including a 'witness' process where invited people presented and answered questions on different themes. The facilitators have (so far) been effective in handling this process so that the jury can hear all relevant views but can come to its own considered conclusions.

What's next? We are half way through the process. The jury meets again for two days in March 2018 to choose one of four alternative models that are being developed by the reference group. After that it is over to the government.

It is obvious from my experience so far that two key requirements for success of the process are:

- A clear and strong mandate from the government for the Citizen's Jury to do its work; and
- Ultimately, follow through by the government on its promise to implement what the jury recommends.

Introducing the new International committee and its membership

By Martin Stevenson

Reading time: 2 mins

The Institute's Council recently recruited members to join the newly established International Committee which replaces the existing International Council Committee. Here, Martin Stevenson explains a little more about it.

The new committee will continue to focus on International Actuarial Association (IAA) activities and place greater emphasis on Asia-related and other important international activities, including supporting members in Asia, New Zealand, and the UK.

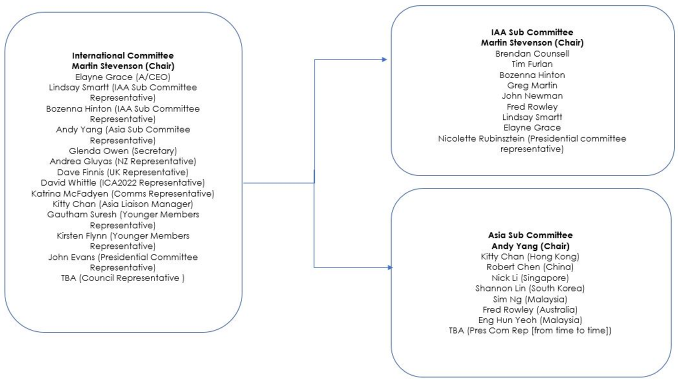
Duties of the new committee include:

- Coordinate the Institute's involvement in International Actuarial Association ('IAA') activities, including nominating the Institute's Committee Members and the Council Delegate who votes on behalf of the Institute at the IAA Council meetings.
- Advise Council on the establishment and management of relationships with overseas international organisations (i.e. provide continuity of representation when Presidents change) and provide support to the presidents in representing the Institute overseas.
- Work with the Presidential Committee and CEO to recommend to Council the extent of financial support for international activities.
- Develop and implement an appropriate due diligence process for Mutual Recognition Agreements ('MRAs') and negotiate MRAs for approval by Council. Review MRAs at expiry.
- Provide regular communication of international activities to members.
- Liaise with other Institute Committees to assist in the promulgation of their activities internationally, and ensure that those Committees are aware of relevant international developments.
- Promote the Institute to other relevant Australian and international bodies.
- Contribute to the organisation of IAA and AAC meetings, regional forums and other international actuarial events as required by Council, both overseas and in Australia.
- Assist the Institute in the provision of member services to overseas members, particularly those in the Asian region.
- Assist the Institute in establishing and maintaining bilateral relationships with other actuarial associations.
- Seek opportunities to improve the Institute's financial position by such means as obtaining markets for the Institute's intellectual capital, leveraging capabilities of international associations and seeking economies of scale by partnering with other associations.

Members wishing to find out more about the work of this committee can contact Martin Stevenson, Convenor of the International Committee and Chair of the IAA subcommittee. Members in Asia can contact Andy Yang, Chair of the Asia subcommittee.

Committee's new membership structure

The main committee is comprised of diverse members representing Australia, UK, NZ, Asia. the committee also has two main sub committees: IAA subcommittee and Asia subcommittee. international committee:



SLOW AND STEADY

100 WEALTH BUILDING STRATEGIES FOR ALL AGES

10 financial strategies for wealth accumulators

By John De Ravin

Reading time: 4 mins

In this second instalment of a four-part series, actuary John De Ravin shares some of his top tips for wealth accumulators, from his recently released book on personal financial strategies.

The strategies in this article are drawn from Chapter 3 ("Wealth accumulation") of my book Slow and Steady: 100 wealth building strategies for all ages". This article covers 10 of the 42 strategies in that Chapter.

1.) Save systematically.

George Clason in his famous book *The richest man in Babylon* calls this strategy "pay yourself first". The essential point is that unless you are unusually disciplined with your spending, the approach to saving where you "spend what you want to between paydays, and save whatever is left over" is likely to result in some spending on "wants" at the expense of saving. Instead of saving whatever is left over, it is a far preferable approach to identify your spending "needs" in advance and add some reasonable expenditure on "wants" and then save the rest. But save the rest **in advance**, as soon as your pay is credited to your bank account, and put those savings somewhere where you can't easily touch it in an undisciplined moment. (For example, you might choose to save via superannuation where you can't access your funds until you reach preservation age, or to save in a joint account with your partner where withdrawals can only be made with two "signatures").

2.) Reduce unnecessary expenditure.

A critical part of saving for many people is to reduce spending on "wants" to allow room for savings – it is saving which will grow your wealth over time. There are LOTS of tips online for how to reduce your expenditure, and Slow and Steady lists eight sources of online tips and suggestions, here are three of them: Canstar, LifeHack and The Simple Dollar.

3.) Get the best mortgage loan.

Australians with mortgages from the "big 4" banks typically pay mortgage interest rates in the vicinity of 4.5%. But for principal and interest homeowner borrowers with good credit records, there are lenders who will charge an interest rate under 4%. The difference may not sound huge, but the dollar amount, accumulated over the term of an average home loan, is sizeable. If you are paying 4.5% or more you can probably get better terms from your bank by doing your homework on a couple of comparison websites and then ringing your bank and telling them that you notice that a competitor is offering a rate below 4% and asking the bank if there is anything they can do to make your rate more competitive.

4.) Buy Exchange Traded Funds (ETFs).

ETFs offer diversified exposure to a wide range of asset classes and the costs for "passive" or "index" ETFs are typically very low. ETFs are listed securities and their structure is "open ended" which means that the price is typically aligned closely to the value of the underlying assets.

5.) Buy Listed Investment Companies (LICs).

Like ETFs, LICs offer diversified exposure to a variety of asset classes and although they typically take an "active" approach to management, the Indirect Cost Ratios of the larger LICs are typically very low. Moreover some LICs have shown an ability to slightly outperform their benchmark indices, even after their fees. One aspect to note is the difference between the Net Asset Value and the market price; movements in this gap can represent both an opportunity and a threat.

6.) Get your asset allocation right.

Asset allocation is a critical determinant of portfolio performance but how do you decide which "risk/return" tradeoff suits you? The traditional approach was via a psychometric risk profile questionnaire but the method of mapping from the results of a risk profile questionnaire to an asset allocation is seriously flawed because it completely fails to consider the amount of investment risk that you need to take to achieve your objectives (e.g. to support your intended lifestyle in retirement). However, the outdated "determine the asset allocation directly from the risk profile questionnaire" paradigm has not yet been replaced by a new standard industry algorithm. Unfortunately, working out how much risk you "need" to take to meet your goals is difficult, though there are some tools available to help.

There is a risk that too much focus on "volatility risk" may lead to an asset allocation that does not maximise your long-run expected utility.

7.) Keep your investment costs low.

A typical retail client of a financial adviser in Australia pays total fees of about 2% of funds covering advice, platform and investment manager fees. Whilst some clients may be comfortable that their advisers are adding significant value to their financial strategies or investment selection, others may prefer to build their own low cost diversified portfolios with risk/return profiles consistent with their target asset allocations. Increasingly this is possible via ETFs and LICs.

8.) Buy only the types of insurance you need.

Some classes of insurance are compulsory so you have to buy them (CTP for individuals, Workers' Compensation for corporates). Outside the compulsory classes, some insurance covers are more critical in the sense that the potential claims are very high multiples of the premiums. Finally, some classes of insurance offer better value than others (higher loss ratios). By choosing to buy only the types of insurance you "need", you can cover yourself for risks which would do a lot of damage to your personal finances but minimise the long-run transfer of profits to insurers for risks you can comfortably self-insure.

9.) Buy Compulsory Third Party (CTP) motor insurance

Of course, you must buy CTP, it's the law. In most states, the insurer is either a statutory authority or, even if there are multiple private sector insurers, the insurers charge the same premium rates. But in NSW insurers quote different premium rates and consumers are offered a choice of insurer, so a quick comparison of the available premium rates can save the consumer a lot of money. This is the official comparison website.

10.) Buy Third Party Property Damage (TPPD) insurance

If you drive a new Porsche 911 Carrera valued at $300,000 then you are probably going to insure it comprehensively - unless your name is Packer or Murdoch. But if (like me) you drive a 15 year-old Saab valued at $5,000, then the possibility of insuring only for Third Party Property Damage opens up. Of course, if you have an accident and write your car off, you would have been better off *in that year* with comprehensive motor insurance. But insurers have to earn profits, so the premiums they charge are more than enough to cover the expected cost of claims. So by retaining risks you can afford to retain, you will probably be better off in the long run.

You can get a free list of all 100 strategies in Slow and Steady from the book's website.

AASB 17 Insurance Taskforce Update: Risk Adjustment and Discount Rate Work Stream

By Brett Pickett

Reading time: 4 mins

Brett Pickett is Head of Actuarial (Group Risk) at TAL and a member of the AASB 17 Insurance Taskforce. Here, Brett provides an update of the Taskforce's activities, including issues around risk adjustment and discount rates.

The work stream is one of six tasked with producing guidance for Australian Actuaries implementing AASB 17. The work stream consists of representatives across all affected industries. We meet fortnightly to discuss the new standard and the potential impact on Australian insurance companies.

Progress to date

The work stream has drafted a Question and Answer ("Q&A") style chapter separately for risk adjustment and discount rates. These chapters will be consolidated with Q&A from other workstreams into a single Q&A document to be published by the taskforce in due course. The Q&A document is intended to supplement the International Actuarial Association ("IAA") guidance and provide a tailored view of the impact of AASB 17 on the Australian insurance industry.

Risk Adjustment

The risk adjustment is one of the "building blocks" in the measurement model in AASB 17. The purpose of the risk adjustment is to reflect:

"the compensation an entity requires for bearing the uncertainty about the amount and timing of the cash flows that arises from non-financial risk as the entity fulfils insurance contracts" (AASB 17 Appendix A).

Its purpose therefore differs from a solvency objective of acting to cover adverse deviation that can be expected in normal circumstances, with capital to cover adverse deviation in more unusual circumstances.

The risk adjustment can be calculated in a number of ways and the standard does not prescribe the approach that should be taken; it does require disclosure of the level of confidence over the best estimate liability that is implied by the resulting risk adjustment used by the company.

The work stream discussed a number of the potential impacts on Australian insurers for inclusion in the Q&A – examples include:

- The definition and types of risk that would be considered to be "non-financial risks"
- Whether the risk adjustment was a material change for the life industry (yes given there is no risk margin currently), the general insurance industry (no, apart from the requirement to report the gross risk adjustment and the extent of additional disclosure required) and the health insurance industry (no since the current standards also require a similar risk margin)
- The interaction and relationship with the risk management framework and regulatory, economic and target capital; the discussion included consideration of the ability for insurers to leverage existing risk frameworks in deriving the risk adjustment under AASB 17
- The five key steps in calculating the risk adjustment:
  - Understand and assess the risk aversion of the entity;
  - Understand the extent to which the entity considers diversification benefits in setting the compensation it requires to bear risk;
  - Understand and assess the uncertainty and variability (i.e. risks) inherent in the insurance contracts being valued;
  - Assess a value that reflects the entity's risk aversion, in the context of those risks, and in the context of that diversification; and
  - Communicate how the risk adjustment is derived and any judgements in arriving at that assessment.
- The calculation of the risk adjustment at inception and subsequent measurement as well as transition arrangements

Finally, the Q&A discusses some estimation techniques for calculating the risk adjustment – namely, the confidence level approach, the cost of capital technique and a simplified approach.

Risk Discount Rates

Risk discount rates are a familiar concept to all actuaries although the extent to which they are applied often depends on the term of the insurance contract. AASB 17 includes the risk discount rate as one of the building blocks in the measurement model.

AASB 17 specifies that discount rates should:

- *"reflect the time value of money, the characteristics of the cash flows and the liquidity characteristics of the insurance contracts" (AASB 17.36(a));*
- *be "consistent with observable current market prices (if any) for financial instruments with cash flows whose characteristics are consistent with those of the insurance contracts, in terms of, for example, timing, currency and liquidity" (AASB 17.36(c)); and*
- *"exclude the effect of factors that influence such observable market prices but do not affect the future cash flows of the insurance contracts" (AASB 17.36(b)).*

Financial risks are only included in the discount rate "to the extent that the financial risks are not included in the estimates of cash flows". Financial risk is defined as:

"The risk of a possible future change in one or more of a specified interest rate, financial instrument price, commodity price, currency exchange rate, index of prices or rates, credit rating or credit index or other variable, provided in the case of a non-financial variable that the variable is not specific to a party to the contract (AASB 17 Appendix A)."

As noted above, uncertainty about the amount of the cash flows which arises from non-financial risks is reflected through the risk adjustment, and not in the discount rate.

The Q&A includes commentary on:

- The estimation of market consistent discount rates
- A comparison to the current requirements in AASB 1023 and AASB 1038
- The derivation of discount rates for a group of contracts
- A discussion of the derivation of discount rates using the "bottom up" and "top down" approaches in AASB 17
- The difference in approach for cash flows depending on the return of underlying items vs. those that do not depend on the return of underlying items

The work stream has also produced decision trees to help actuaries determine which discount rates are required in the building blocks approach (including the modifications in the variable fee approach) and the premium allocation approach. A decision tree has also been produced to assist in determining the disclosures that are required.

Conclusion

AASB 17 will have a significant impact on the Australian insurance industry and the actuarial profession. International interpretation will evolve and develop over time; so too will the Q&A. We intend that it provides a good starting point to help actuaries in the implementation of the new standard over the coming years.

Automatic machine learning - Zeming's data analytics 'meetup' files

By Zeming Yu

Reading time: 3 mins

It's the year 2025. As an actuary for a major software vendor, you've just been asked by your boss to figure out why the algorithm liability claims are deteriorating.

You turn on your computer and start talking. "OK computer, pull the last 4 years of claims data for me."

"No problem. Estimated time to completion: 20 seconds... Done."

The screen starts to display some key information about the dataset - 1.4 million rows, 25 columns. Payments have all been reconciled to the bank statements.

"OK computer, start doing exploratory analysis."

"Sure." In a few seconds, the screen starts displaying all sorts of histograms, stacked bar charts, time series charts.

"That's too much. I need to get back to my boss in a few hours, give me the key insights please." You become a bit impatient.

"The overall claim frequency is stable. There has been a sharp increase in the average claim size for the drone software liablity product. I recommend start building a predictive model on historical data and do an actual vs expected analysis on more recent data to figure out what's going on. A thorough analysis will take an hour, but I can report back some initial findings in 5 minutes. Is that OK?"

"OK then."

You go to the kitchen to make a coffee. Walking through the office floor, you see dozens of other actuaries talking to their own computers. The noise cancelling feature of the headset is getting so good that you can hardly hear a word they say. The work place has become a bit like a gym. Some are running on a treadmill while some others are on cross-trainers. Everyone is still working, of course, as working is nothing but having a friendly chat with your computer, and multi-tasking is a piece of cake.

You sometimes miss the good old days when you had to sit down and write SAS programs to get things done. Oh well, the world has moved on.

Back to reality

Only time can tell whether the above will become a reality or not. For now, let's come back to the year of 2017 and see how automatic machine learning is done.

Jose Magana (Data Scientist at CBA) presented to the Sydney Users of R Forum (SURF) on Automatic Machine Learning in R.

Currently this can be done via both proprietary software and open source solutions. If there's enough budget, DataRobot is certainly worth trying.

If there's no budget, you can always try the open source solutions.

- H2O offers AutoML in both Python and R.
- In Python, there's auto-sklearn.
- In R, there's the caret package and the focus of this meetup - the MLR package.

Jose provided a comprehensive demonstration on using the MLR package to predict survival using the Titanic dataset.

I'm very impressed by the package. From missing data imputation, automatic feature selection to training a range of different models and cross validation, this package can do it all!

Admittedly it's not quite like DataRobot where you just click a few buttons and wait for the magic to happen, but the coding doesn't look too bad. You basically have to tell the package what to do at a high level (for example, use these imputation methods and these algorithms). Jose showed us that you only need about 30 lines of R code to complete the entire process end-to-end.

I can imagine that as this area matures, and as natural language processing advances to such an extent that the instructions can be given by simple conversations, the 2025 scenario described above may well be a reality!

That's all for now. Wish you a Merry Christmas and Happy New Year!

Data Analytics powers NRL plays, health reform and research - 2017 Data Analytics Seminar report

By Michael Storozhev

Reading time: 4 mins

From determining game-changing NRL plays, to detecting fraud in Australia's $1 billion health care system, data analytics is a powerful force. *At the recent Actuaries Institute Data Analytics Seminar, attendees were challenged to think "beyond the data science bubble" and find ways to harness their existing skills in the exciting world of analytics. Michael Storozhev reports.*

Two Plenaries at the Institute's sold out 2017 Data Analytics Seminar showed that actuaries need to be open to ideas and push themselves to stay relevant through continuous self-directed learning.

One of the most exciting prospects for actuaries is how far analytics has come in the last few years. Plenary Three introduced happenings in other industries, and looked to them to show where actuaries can expand their horizons when looking for new techniques and career prospects, outside the financial services industries.

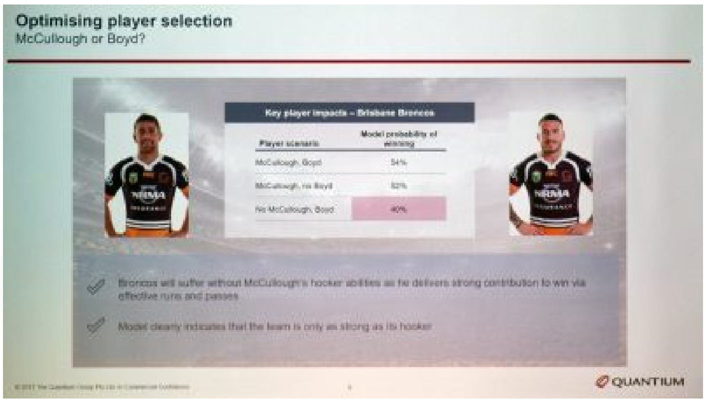
Tatia Rashid from Quantium on the NRL DataJam

NRL DataJam

Tatia Rashid from Quantium gave an account of Quantium's recent foray into the NRL DataJam held earlier this year. The DataJam was a competition run by the NRL that pitted 10 of Australia's leading analytics teams against each other to solve actual on and off-field problems using the huge game data lake available. It was the first time in NRL's history that this data had been opened to such scrutiny.

I was genuinely surprised to hear the teams were presented with a dataset of 10,000 events for each match, and expected to provide insights that same day. Tatia described the problems tackled by the Quantium team, including game strategy, recruitment optimisation and fan engagement.

From an actuarial standpoint, it was encouraging to see the techniques for recruitment optimisation were closely aligned to insurance pricing, with very similar GLM techniques utilised to compare players. However, Tatia also discussed techniques developed for American Football that modelled in-game strategy for the DataJam. Using a "next best action" EPA model, the Quantium team proposed strategies to handle fifth tackle decisions, explaining why a well-timed 40-20 kick can be a game changer.



Overall, Tatia gave great insights into how to adapt existing techniques and models for new uses, and well done to Quantium for gaining second place in a tightly contested day!

Data detecting fraud in $100 billion health sector

Plenary Three continued with Lorica Health's Chief Executive Officer, Dr Paul Nicolarakis, outlining how big data and analytics are transforming the world of health care. Dr Nicolarakis explained the history of research and innovation that underpins Lorica Health, allowing it to utilise automation to detect fraud, waste and errors in Australia's $100 billion health sector. It was fascinating to learn about the unique partnership model between Lorica Health, the Government, Universities and Industry that provides PhD students access to industry expertise,with an aim to solve social problems. This research allows Lorica Health to pin-point where cost savings could occur, what unnecessary procedures and medication exist, and how lax risk management costs the industry.

"I was shocked to learn the industry acknowledges that over 20% of surgeons do not wash their hands between procedures on different patients."

A key takeaway for actuaries was that most of the students working with Dr Nicolarakis had a strong technical background, but were also exposed to domain knowledge through interaction with the industry. Such an insight is important as it provides confidence to actuaries, that we will always find ways of using our existing skills and training.

Lorica Health's CEO, Dr Paul Nicolarakis

The Education Revolution

Actuaries seem to have a steadfast question about how different data science techniques can apply to their own experience and skills. Plenary Four looked to answer this question by considering how education can keep up and stay relevant with the needs of the industry in such a fast-paced field.

I kicked off the Plenary with a view on how much the analytics space has changed in the last five years. Through new industries, challenger brands and a greater focus on finding value in data, there has been vast growth in the demand for technical data capabilities.

A shortfall of nearly 1.5m million jobs globally in this area, is forecast next year. Excitingly, this provides excellent opportunities for actuaries who already have the technical expertise the industry is seeking.

The formal education sector has evolved to try to meet industry demand with almost 100 different degree options created for post-graduate data science study in Australia, yet neither universities or the industry seem to know what they are looking for from a 'Data Scientist'. In my presentation, I stressed the need for more self-directed learning through individuals utilising the huge eco-system of online courses, tutorials and resources available, to bridge the skills gap.

Door open to research students

Dr Doron Samuels continued the Plenary, explaining the growing collaboration between universities and both public and private sectors. Such collaboration is essential to ensure academic research is relevant to industry and university graduates can hit the ground running.

Dr Samuels, already an industry leader in behavioural science, also explained his current research project at the University of Sydney, where he is the eldest PhD student. His research looks to bring behavioural economics into insurance, using personality factors in underwriting in travel and life insurance, the impact of legislative change on the CTP scheme, and quantitative models for mental health underwriting. Dr Samuel's perspective was extremely valuable for actuaries looking to engage universities to undertake collaborative research. Confidentiality, IP, and ethical issues are all easily resolved, and companies get access to doctoral students that are usually the youngest and brightest in the country to solve some of the industry's hardest and pressing questions.

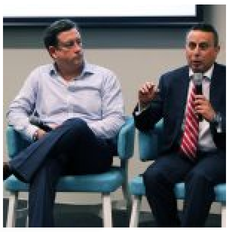

Michael and Dr Samuels


Q&A time


Dr Doron Samuels

The Plenary sessions I've discussed in this article should bring confidence to actuaries looking to expand their career in data analytics. New and exciting data techniques being used in a wide range of industries can often easily be adapted to the finance and insurance companies, where actuaries primarily work.

With such a strong technical skill-base, actuaries will always bring value to the wider analytics profession. However, it is up to all of us individually and as a profession, to learn to translate our actuarial terminology and techniques to the data science industry and be open to knowledge and exposure in different fields.



What you missed at the 2017 Injury and Disability Schemes Seminar

By Stephanie Quine

Reading time: 6 mins

The 2017 Injury and Disability Schemes Seminar welcomed over 300 delegates to Sofitel Brisbane Central this week. With over 50% of delegates being non-actuaries, there was a great diversity of thought and experience presented in four plenary and 48 concurrent sessions. Stephanie Quine reports.

Keynote Address

The Seminar's highly anticipated Keynote Speaker, David Bowen, spoke candidly about successes and failures in his previous roles as the inaugural CEO of the National Disability Insurance Agency (NDIA) and consultant to Commonwealth Treasury and Department on the NDIS.

"I've been involved in three attempts to reform medical indemnity...it was incredibly disappointing and difficult," said David, highlighting the critical issue of national consistency and the need to take account of health outcomes and rehabilitation.

David described "an IT system the NDIA has never controlled"; incredible growth; and staff with too much pressure and high levels of discretion as some of the current "major problems" facing the NDIA. However, he also said the scheme inherited the legacy of broken state and federal funding systems.

"For decades, there' been a 20% shortfall of those who have been provided for in the system, and those who are actually there," he said.

"I find the irony that the NDIS and NDIA are under scrutiny by auditors [when] for years, the recipients haven't been known by the Commonwealth and States."

David also spoke about the opportunities of using and linking different data sets in government, and acknowledged the work of actuaries, including Taylor Fry's social welfare work in NZ and Australia.

"Actuaries' are involved in advice and strategic development. We have been able to recognise expectations and work harder to deliver," he said.

David acknowledged worldwide studies that show when you put the person in control of the funding, they manage better outcomes, at a lower cost. He also made a point on personal injury insurance matters, that "lawyers need to start taking a much wider social view...and of the best interests of their clients... in whether they pursue litigation or how they go about that litigation".

Presentations from a variety of the Day 1 Plenary and Concurrent Sessions are now available here. Check out #IDSS2017 on our twitter feed for more speaker quotes and photos from the Seminar

Plenary 1&2: Change and Challenges

Carmel Donnelly (State Insurance Regulatory Authority), John Nagle (icare), Joe Calafiore (Transport Accident Commission) and Clare Amies (WorkSafe Victoria) all spoke about the common theme of trust and a client centric approach to claims management in this Plenary.

John highlighted how icare is consulting with rehabilitation providers, industry groups, employers and injured workers to better understand what best practice for workplace rehabilitation looks like.

"Despite the tens of millions of extra dollars paid out for rehabilitation services, our data analysis confirms the extra expenditure has not led to better return-to-work rates or outcomes", John said. For more detail on icare's work in this space, read John's Opinion piece on Actuaries Digital.

Claire outlined the '2030 strategy' Work Safe Vicotria that requires what she called "a broad cultural shift that will embed a prevention-led 'active' approach.

Carmel said there is "'deeply disturbing evidence" that some people would be better off in terms of social outcomes without CTP cover, so we need "to stay at the table and together solve the problem" and "if we're going to fund on outcomes, we've got to make sure we measure them really well".

Kim Birch (CTP Insurance Regulator South Australia) shared the SA journey to establishing the inaugural CTP insurer and the challenges they faced - everything from simply starting up an office space to collaborating with Australia Post on paper claims.

Mark Coyne (EML) outlined how EML is engaging in "motivational interaction" with customers - enhancing empathy and support.

During the panel discussion, facilitator Norman Swan asked some tough questions from the crowd, including "do people feel they have been treated fairly?" and "how can people trust an automated system?"

Joe Calafiore reiterated that insurer's need to get out of customers' way by carefully reallocating resources. Carmel agreed adding, "that’s about cutting red tape and not being prescriptive where it doesn't count."

David Bowen recommended schemes “become a source of information by providing clinical studies and start a collection of outcome assessment and feed it back into your scheme - your scheme can then become the most powerful tool."

Delegates digested all the presentations over lunch continuing to discuss the challenges and opportunities of schemes - two plenaries weren't enough!

Plenary 3 - Mental Health

The speakers in this session: Julian Williams (Founder, Cordius and Former Partner, PwC), Eugene McGarrell (General Manager, Health and Community Engagement, icare), Pamela Rutledge (CEO, Flourish Australia) and Geoff Atkins (Director, Finity Consulting), who were interviewed before the event in this Actuaries Digital article, each gave a unique perspective on the complexities of this issue, and approaches to mental health within our schemes.

"What matters is not the medical diagnosis, it's the complexity that surrounds the person: housing, jobs, family etc. Insurers have to factor this in" said facilitator Norman Swan.

Julian Williams

His point was made clear by Julian Williams, former PwC partner, who shared his very personal lived experience (denial, loss of joy, effect on family relationships, time off work, catastrophising and suicidal thoughts) of a mental health battle.

"The psychologist said, for the next month, focus on no one but yourself. PwC was nowhere to be seen - that was magic... they gave me time to get better," said Julian, raising the importance of co-workers and family asking R U OK? and for him, starting on medication. A powerful talk.

Eugene then took the mic, highlighting how the 'family community' has somewhat been replaced by the 'work community' in today's society, and the opportunity this presents to use workplace as a tool for recovery.

He discussed the varying degrees of success of courses on mindfulness, CBT, and return to work (RTW) stress management, depending on the person, and how insurers need to be more 'adaptive and collaborative', beyond a purely evidenced based, technical approach.

Pamela then discussed the use of 'personal situation plans' that detail what employer should do if a person becomes unwell or distressed. 52% of Flourish Australia's employees identify with having a mental health issue and the organisation gives preference to recruiting those with such experience.

The Plenary Q&A was thought-provoking, ultimately revealing that there is not one simple solution to this multi-faceted problem.

Plenary 4 - Future, Technology, Innovation

In this final Plenary, Tim Clark (Chief Actuary, IAG), Dr Hugh Miller (Senior Actuary, Taylor Fry), and Dr Chris Colquhoun (Chief Medical Officer, icare) explored how technological changes, improved analytics capability and medical advancements can be harnessed to improve customer experience and drive better outcomes for injury and disability schemes.

"A lot of machine learning is actually just chucking a whole lot of data together and seeing what patterns come up," said Tim Clark, musing on reducing the complexity of the world into a model.

Hugh followed with a reflection on the 'power of prediction' - perhaps not extending as far as geopolitics - but certainly in other areas, as Taylor Fry's work in social welfare modelling has shown.

"Prediction has gotten better, and it will continue to get cheaper and easier to do," said Hugh, adding that a business case for the technology was essential to complete the 'tripod of innovation'.

Dr Chris began by saying he was 'blown away by the calibre of presenters' at IDSS. His experience in medicine and as an Occupational and Environmental Physician provided a strong backdrop for his thoughts on the future of health care.

"It's important to take healthcare practitioners on a transitional journey to delivering secure electronic data," said Chris, adding that better transparency on practitioner performance and paying more for outcomes, rather than service, was the way forward.

"I think the people will become at least a partner or the primary decision maker in the process of treatment," he said about todays 'empowered' customers.

Following a thoughtful panel Q&A session, President, Jenny Lyon gave her closing remarks, acknowledging the hard work of the IDSS Organising Committee, HQ Events Team and all the plenary and concurrent speakers, who made the 2017 Seminar a success.

IDSS Organising Committee

Concurrent sessions

Head to our IDSS Program Snapshot page for a full account of the 48 concurrent sessions, with links to presentations and papers. Here are some of the highlights:

Joshua Martin and Jefferson Gibbs' session on Introduction to Mental Health was of high interest, especially in light of the Institute's latest Green Paper Mental Health and Insurance. Co-author of the paper, Geoff Atkins discussed it in Plenary 3 and in this article. The theme continued with presentations from Steven McCullagh and Dr Simon Rosenbaum on innovative approaches to improving health and wellness outcomes for injured NSW police officers.

Robert Aurbach delivered a presentation on his paper Fighting 'Fight or Flight' focused on 'difficult' claimants and how their actions are a natural autonomic nervous system reaction to perceived threats in the claims environment.

There were also several sessions on CTP Scheme updates from QLD, NSW, ACT, WA and TAS, touching on benefit reform, workers compensation, scheme performance and motor insurance.

We had a full house for David Gifford and Cassie Citroen's session on 'The next evolution of client risk identification and segmentation at the TAC'. Cassie provided an overview of the 'TAC Longitudinal Client Outcome Study' and David explained that segmenting clients and identifying risk is important in getting clients' lives back on track.

"We need to keep our schemes sustainable - we need to be here for today's clients and tomorrow's clients," said David.

The final concurrent session of Day 1 included the highly anticipated NDIS Scheme update from Scheme Actuary, Sarah Johnson, as well as the ACT CTP Scheme Update.

Dennis Woon, Graeme Adams and Claire White came together for a forward-thinking session on autonomous vehicles and how robots will change CTP, asking: what does the future of CTP look like in 2055?

Author of Actuaries Digital's Normal Deviance column, Hugh Miller, spoke about 'Building Better PPAC Models' and Lisa Simpson unpacked the The Future of Workers' Compensation, asking: what will our future industries, and employees look like with the increasing casualisation and ageing of our workforce?

Gala Dinner

Following a full day of insightful sessions, delegates changed into their best LUAU outfits before making their way to the Moda Events Portside for the IDSS Gala Dinner. There was a colourful array of entertainment and celebrations continued as Greg McCarthy was awarded the Taylor Fry Prize for his paper *'Insights for Success in Work Injury Insurance'*.



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SLOW AND STEADY

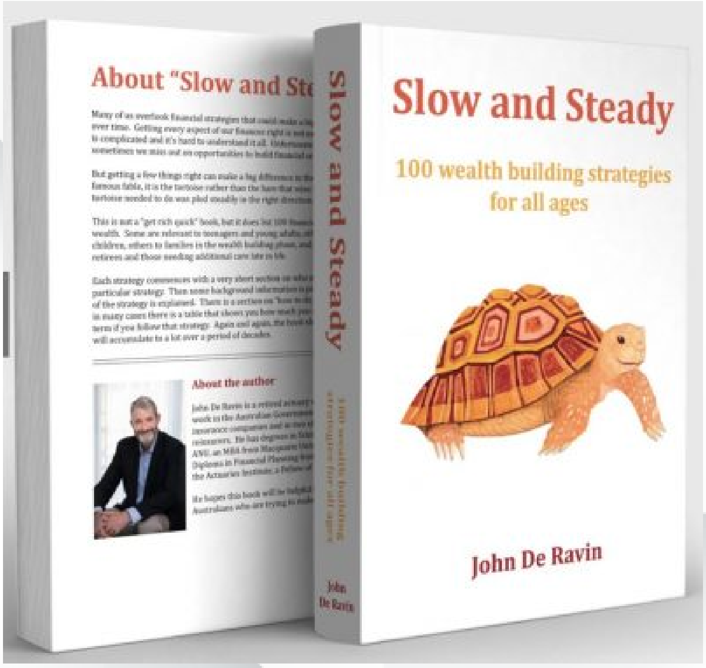
100 WEALTH BUILDING STRATEGIES FOR ALL AGES

10 financial strategies for teenagers and young adults

By John De Ravin

Reading time: 3 mins

Fresh from publishing a book on 100 wealth building strategies, actuary John De Ravin shares some of his top tips. This is the first instalment of a four-part series, sharing strategies for all ages and stages of wealth building.



School, college and university education typically provides little in the way of formal instruction about personal finance so it is up to you to develop your own approaches and habits, with whatever help you can get from family and friends.

My book Slow and Steady: 100 wealth building strategies for all ages, is intended to help Australians, of all ages, to choose financial strategies that will support their financial security and grow their wealth. The strategies are grouped demographically, so Chapter 1 is intended for teenagers and young adults. This article draws on 10 of the 15 strategies in Chapter 1 of the book.

Here goes.

1.) Take any opportunity for education and training.

The most valuable asset by far that most young adults have is their own future earning potential. Statistics show a strong correlation between lifetime earnings and educational attainment.

One of the best things that you can do is likely to be to develop your earnings power by taking advantage of opportunities for education and training.

2.) Pay off your credit card in full every month.

You're a member of the Actuaries Institute, right? If yes, then I reckon you'd understand this one without much explanation.

3.) DON'T buy a car.

I performed a simple linear regression on some data on the My NRMA website and produced a rule of thumb for the total cost of ownership of a new car, over the first five years of ownership.

A reasonable estimate is $4,000 plus 20% of the new price of the car, per annum.

So even a relatively modest new car costing $25,000 means that effectively you are devoting $9,000 a year to your motor vehicle.

Depending on your location relative to public transport, you may well find that it's cheaper to use public transport, supplemented by Uber, GoGet, oBike and Reddy Go when public transport doesn't meet your needs.

4.) Buy a used car, not a new one.

If (despite the previous strategy) you decide to buy a car, at least you could buy a used one. Rather than buying the new model for $25,000, you may be able to pick up a five or six-year old model for (say) $10,000.

Assuming that the rule of thumb applies for used as well as new cars then the total cost of ownership of a five or six year old vehicle over five years might be $6,000 rather than $9,000, one third less cost for much the same functionality.

5.) Take an interest in personal finance.

By taking an interest in personal finance you will equip yourself with the skills to make good financial decisions and to build your wealth more efficiently. There are courses you can do if you feel you need formal training, or you can read personal finance magazines and the financial press.

6.) Save some of what you earn.

The benefit of compound interest is greatest for the longest investment periods so saving while you are young will have a surprising impact on your wealth accumulation during your career.

7.) Live at home.

Buying your own home has many advantages but prices are challenging for young Australians on modest salaries. One of the best ways to save money, if your family situation allows, is to live at home and save on rent (depending on what your parents would charge you, of course).

8.) DON'T pay off your HELP debt.

HELP debt is just about the cheapest form of debt you will ever get. You have to pay it off from your taxable income when your income meets certain thresholds but there is not much advantage in paying it off early.

If you can afford to pay down your HELP debt faster than required, you would usually be better off putting your extra savings to use earning better interest than just the CPI.

9.) DON'T buy private health insurance

Assuming you are healthy and that you would be OK with treatment queues in a public hospital, there isn't much point for a young person on a salary below the Medicare thresholds to buy private hospital insurance.

In Australia, hospital treatment is free. So why pay for it when you don't have much spare money, and when you have other important and challenging financial objectives?

10.) Split your income into five "buckets".

Li Ka-shing, Hong Kong's wealthiest man, recommends splitting your income into five buckets: 30% for living expenses, 25% for saving, 20% for expanding your network, 15% for learning and 10% for travel. The fascinating thing about this allocation is the very strong emphases on savings, on learning and on expanding your network. His recommended strategy for expanding your network is to take someone senior to you to lunch or dinner, at your expense, twice a month. The objective is to expand your friendship circle and influence.

You can get a free list of all 100 strategies in Slow and Steady from the book's website.

Preparing our Health Systems for Climate Change

By Ignatius Li

Reading time: 4 mins

In this article, Director of Consulting at Deloitte, Ignatius Li discusses the latest Lancet Countdown report and outlines some of its highlights and implications for Australia's health system.

Just how prepared are our health systems in coping with climate change?

What is required to safeguard our health system, and the health outcomes that we take for granted today?

Measuring health system climate change readiness is a critical part of the control cycle for policy makers steering a transition course through uncharted waters. Agreeing on the appropriate metrics is complicated by the fact that health outcomes are impacted by a broad range of factors, not all of which can be easily collected, and not all of which come under the formal umbrella of health policy.

Nevertheless, there are efforts to create a measuring system, to at least encourage discussion about what a climate change ready health system should achieve.

The Lancet Countdown is one such effort.

What is the Lancet Countdown?

The Lancet Countdown, is an annual report on global, national and regional trends regarding health and climate change.

It is an international collaboration of experts reporting on the health effects of climate change, the implementation of the Paris Agreement, and the health implications of these actions. Comprising of 40 indicators, it measures:

- Climate change impacts, exposures, and vulnerability
- Adaptation planning and resilience for health
- Mitigation actions and health co-benefits
- Economics and finance; and
- Public and political engagement

The indicators were chosen based on data availability, resources and time, with Lancet making it clear that the indicators presented thus far "are the beginning of an ongoing, iterative, and open process". A particular priority is improving the attribution analysis of health outcomes to climate change.

From this author's perspective, it is a report that is thought provoking, and useful in helping us to articulate the type of questions that we might want to answer. For example:

- How will demand, both in quantity and by type of products and services change as a result of climate change? Are our existing health infrastructure located in the right places?
- What are the consequences for the medical workforce?
- How and who should fund the transition to a climate change ready health system?
- What, if any, is the role and opportunities for private health insurers?

What are some highlights from the 2017 countdown?

The 2017 version was recently released, just in time for the UN Climate Change Conference currently taking place in Bonn, Germany.

Lancet has a number of key messages including that "the human symptoms of climate change are unequivocal and potentially irreversible".

For this reader, there are also concepts and issues in Lancet that give pause for thought.

- The concept of area-weighted warming versus exposure-weighted warming: the rise in the global area average temperature is not the same as the rise in the temperature experienced by the global population. This is obviously because humans are not uniformly distributed across the planet's land mass. Hence, Lancet reports that while the area-weighted warming was 0.4 degrees between 2000 and 2016, the exposure-weighted warming was calculated to be 0.9 degrees over the same period. The implication is that health systems need to plan using exposure-weighted warming to more accurately predict changes in incidence to e.g. heat stress, cardiovascular disease, and acute kidney injury.

- Mental health is very topical at the moment so it was particularly interesting to see the link made between climate change and mental health and wellbeing. The report acknowledges the difficulty in measurement and attribution as mental health issues "are products of long and complex causal pathways". Despite this, a framework is being developed in partnership with the University of Sydney to trace direct and indirect causal pathways to help identify potential indicators. The report suggests examples of indicators in the future might include: national and local mental health emergency response capacity to climate-related extreme events and the psychological effect of uninsured economic losses that result from extreme weather events.
- Measuring resilience and adaptation of a population's health and health system is extremely challenging. Lancet does not offer any direct indicators and instead looks for evidence of health adaptation planning, capacity and response. It argues that a potential indicator of a country's readiness is the existence of a "national health adaptation plan" outlining priority actions, resourcing requirements with timelines for implementation. The report found that 75% of responding countries had an approved plan, but troublingly, it stated that there was no data available for Australia.

What are the implications for Australia's health system?

Earlier this year, APRA said that "climate risks also have potential system-wide implications that APRA and other regulators here and abroad are paying much closer attention to". While this comment might have applied to financial systems, it could equally apply to health systems.

Furthermore "from a regulatory perspective, one key to getting a better handle on potential system-wide exposures is better information on risk and strategy at the firm level" and that "a comprehensive understanding that will help to identify and avert potential vulnerabilities is not possible unless entities and regulators are systematically monitoring, disclosing and talking about these risks."

Private health insurers sit squarely in the intersection of both the health and financial systems. As professional managers of risk, and as they seek to move away from being a purely transactional player to being partners in health, they should consider their role and whether Climate Change presents an opportunity to more actively help shape the health system.

**This article does not necessarily reflect the views of Deloitte or the Institute's Health Practice Committee*

Workplace rehabilitation services need shake-up - Opinion

By John Nagle

Reading time: 4 mins

icare's Group Executive Workers Insurance, John Nagle, says the transformation within injury and disability schemes discussed at this week's IDSS, aligns closely with icare's focus on the needs of the injured worker and improving workplace safety.

John gave this presentation as a speaker in the first plenary session of the Actuaries Institute's Injury and Disability Schemes Seminar (IDSS) in Brisbane this week, following the impassioned Keynote Address by former NDIA CEO and long time industry leader, David Bowen.

Fundamental to our goal is to support injured workers to achieve sound physical and mental health more quickly, so they can get back on track, and back to work.A successful return to work, after an injury, requires a cohesive system in which all parties understand their part in the engagement process and work together to ensure the best result for the injured worker. At the same time, improving safety in the workplace so that injuries are prevented means that premiums can be reduced - a significant benefit for employers, their employees and the economy.

Workplace rehabilitation represents the single largest expense category across all medical and non-medical third party services engaged to support the injured worker.

That is why we are actively consulting with rehabilitation providers, industry groups, employers and injured workers – to build an understanding of what best practice for workplace rehabilitation looks like. Our research indicates that the implementation of a best practice model will provide significantly improved return-to-work outcomes for our customers and better value to the NSW Workers Compensation Scheme.

Currently, 77% of workers return to work within three months and the number of active claims has remained broadly consistent between 2015 and 2016. Yet the annual spend on workplace rehabilitation has grown by 35% and continues to climb.

"Despite the tens of millions of extra dollars paid out for rehabilitation services, our data analysis confirms the extra expenditure has not led to better return-to-work rates or outcomes"

In fact, the success rate of injured workers who received rehabilitation services, and have actually returned to work, is on a downward trend from 71.8 per cent in January 2015 to 67.5 per cent in December 2016; and the successful return-to-work rate continues to fall. This is not acceptable and it clearly expresses that the current models are not delivering the right customer outcomes or value.

We have found that a core weakness of the current service model is its disconnectedness. Until recently, rehabilitation providers had up to five different contracts with any of the five scheme agents managing claims and service providers on behalf of icare.

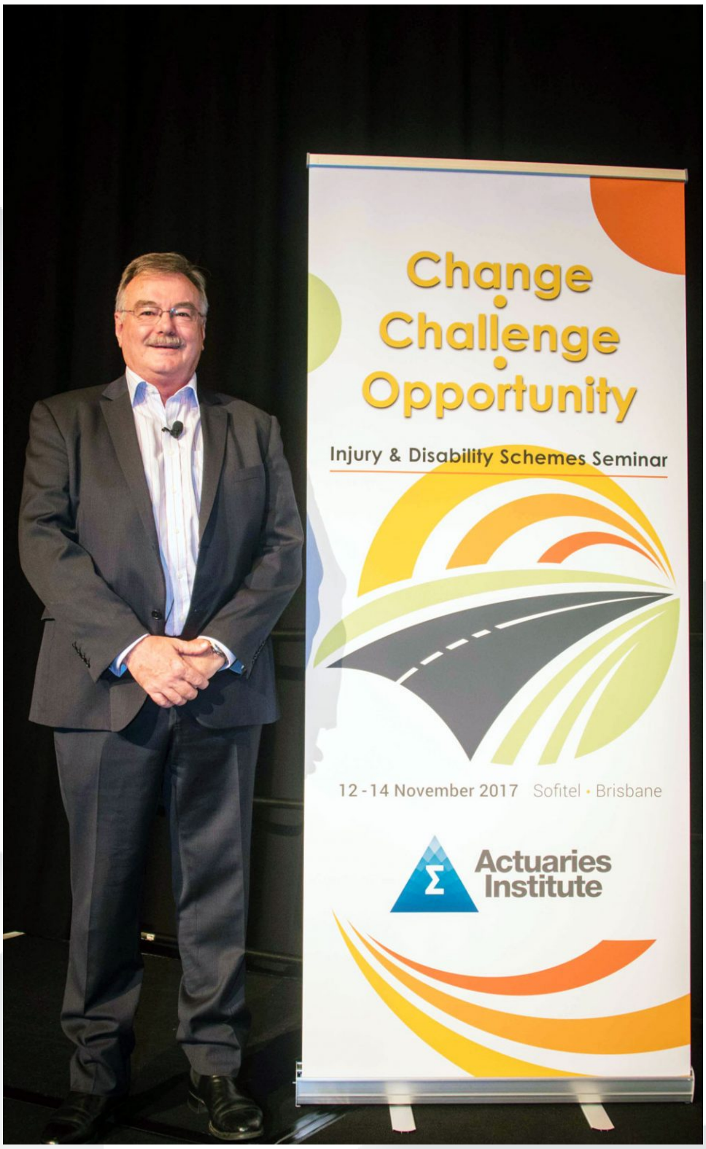
This led to inconsistencies in monitoring rehabilitation service performance, differences in the quality of customer service, differences in the definition of services to be provided. Consequently, there is considerable variation in the prices charged by different rehabilitation providers for the same services.

Importantly, the system has been unreliable for providers too. Without a consistent framework to operate within, many rehabilitation providers have been left confused about what is expected of them in supporting the injured worker.

Based on data analysis, we now have a better understanding of the workplace rehabilitation spend.

"We now know that 20 rehabilitation providers account for more than 80 per cent of scheme's annual rehabilitation services spend of more than $140m"

It is obvious that we need a better way of working together.



To improve how the industry works together, icare has launched a series of improvement initiatives:

- We have cut out a stage to improve the speed, understand the issues and provide a better service for injured workers - bringing icare closer to the workplace rehabilitation providers. From 1 July 2017, rather than asking scheme agents to manage workplace rehabilitation providers, we started working directly with providers and introduced standard contracts directly with those who had agreements with scheme agents. This has brought much-needed visibility and improved communication and consistency to the process, with enhancements continuing.
- We are applying data analytics and using a Net Promoter Score (NPS) index to gain insights into the performance of rehab providers. Our NPS data from more than 1,100 injured workers has rated rehabilitation providers at overall -9, but with significant variation of -100 for numerous poor performing providers, and +100 for many high ratings for customer experience. This extreme variation in customer experience is concerning as the increased amount of time and money spent for rehabilitation services would be expected to achieve a more consistent and positive experience for the worker.
- We have conducted independent audits of scheme agent referrals to rehabilitation providers and it has become clear that improvements to referral practices are needed. Based on the sample audited, a significant percentage of cases referred for rehabilitation services did not have clear return to work objectives. This has been a common complaint from injured workers for many years.
- We are continuing to ask key questions to help us find the best way forward. For example: What is good rehabilitation? What does best practice look like? What does the customer need? To help us answer these we're currently engaging workers, employers and providers in face-to-face interviews and workshops, online surveys and are involving peak industry bodies like the Australian Rehabilitation Providers Association (ARPA). This body of research is currently underway and we expect initial findings for evaluation by December.

Together with other improvement initiatives, such as transitioning to a new operating model with fewer scheme agents from 1 January 2018, icare is working to reduce the complexities of the current system and improve transparency. With greater collaboration between icare and providers we can deliver better quality outcomes and experiences for our customers and ensure a sustainable Workers Compensation scheme.

More exploration is required to understand how enhancements can best be achieved, but our customers are telling us that we are on the right track. Our goal, as we work through these challenges, is to achieve better return to work and well-being outcomes for our injured workers and improved value for the scheme.

Read the wrap-up report of all Plenary sessions at IDSS and view the Program Snapshot page for links to papers and presentations from the Seminar.

Post-work drinks at Ryan's Bar - Actuaries Social Networking Group series

By John Low

Reading time: 2 mins

The first 'post work drinks' event, brought to you by the Actuaries Social Networking Group, was held at Ryans Bar, a popular outdoor drinks venue at Australia Square in Sydney.

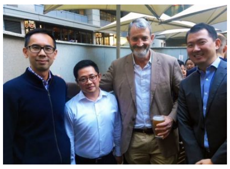
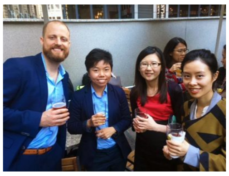
The night started early with the crowd building up quickly. The dedicated organisers with the help of some early arrivals (thanks Kim!) manage to keep the stream of office workers from muscling into our reserved area. The weather was a little mild but dry, a nice change from the wet weather.

The event was well attended with over 30 attendees coming from a range of companies in different industries. A lot of sharing occurred on the night with conversations that varies from work to a personal level.



Timing was great for Arie Van Den Berg from Brisbane who was nice enough to drop in to join us.

John De Ravin was also in attendance and some took the opportunity to pick his brain on financial planning knowledge. John was well prepared as he is just fresh from publishing his book Slow and Steady which provides 100 wealth building strategies.


Near the end of the night, we were pleasantly surprised by a few guys from Munich Re (Steve, Tom, Colm and Jason) who decided come along after their basketball game and to cool down with a few beers.

A lovely night was had by all in a great relaxing atmosphere.

A big thanks to the Actuaries Social Networking Group (SNG) for organising the event and the Actuaries Institute's help with publicising and promoting the event.

The next event will a morning coffee catch up on Thursday 14 December, at the Barangaroo harbour precinct.

Please head to our Meetup page for more pictures from the event and to RSVP to the next catch up!

About the Group

The SNG aims to create opportunities for members to engage and grow through positive networking, whether it's with other Institute members or with those in non-actuarial but related communities. We plan to hold events that:

- focus on building skills; and
- allows members to expand their network.

All our events will be relaxed and accessible and there will be plenty of opportunities for members to participate.

Please feel free to reach out to any of us to anytime if you have any feedback on our events and ideas for future events:

- Leonie Semmens - Melbourne
- Wan Wah Wong - Sydney
- Phin Wern Ting -Sydney
- Zhan Wang - Sydney
- Christopher Armstrong - Sydney
- Jason Yu - Sydney
- Hillary Cao - Sydney
- Kim Hoddinott-Sydney
- John Low - Sydney
- Karandeep Singh Chadha - Sydney
- Christine See - Sydney
- Melissa Tam - Melbourne
- Ash Evans - Sydney
- Bill Konstantinidis - (Council member) Sydney
- Lily Meszaros (Institute Liaison)

IAA Banking Working Group & ASSA Seminar, Chicago

By Jenny Lyon

Reading time: 4 mins

Institute President Jenny Lyon reports on the International Association of Actuaries Conference in Chicago that included a seminar initiated by the Actuarial Society of South Africa: 'The Actuary in Banking'. Australia was specifically invited given our work in developing a Part III banking subject.

I was lucky enough to attend this October conference, where representatives from the actuarial bodies of South Africa, Canada and the United States presented on the development of the actuarial banking profession in their respective countries. The seminar was chaired by Michael Tichareva and the key speakers for the day were Rolf van den Heever (South Africa), Erick von Schilling (Canada) and Brian Brown (USA).

Michael Tichareva described the areas that actuaries have been involved in supporting banks to achieve their strategic objectives. He highlighted the profession's risk management expertise as an essential requirement in running all aspects of a banks. Michael strongly encouraged individual associations to support this new practice area.

South Africa

Rolf van den Heever, the Principal Examiner for the South African Banking Fellowship and a member of the ASSA Banking Committee, outlined the strong presence of the profession in the South African banking scene. The expansion of big data capabilities and transfer of actuarial skills has enabled actuaries working in banking to move into customer analytics by identifying opportunities across the lifetime of customers.

Capital management was identified as another area where actuaries in South Africa have played a pivotal role. Rolf walked us through an income statement of a bank to identify the areas where actuaries are having an impact. He also highlighted the process engineering capabilities required in understanding and influencing operational expenses.

Opportunities and challenges have arisen in banking because of regulation, fintech, unprecedented volatility, systemic risk and scarcity of actuaries.

Rolf stressed the importance of actuarial judgment and wider perspectives, particularly with regards to statistical projections and the use of historical data.

Rolf indicated there are significant opportunities for actuaries in applying new regulation including Basel III, ICAAP/CCAR, recovery plans, IFRS 9, BCBS 239, anti-money laundering and financial crime.

Casualty Actuarial Society (CAS)

Brian Brown, the President of the Casualty Actuarial Society and the Global Practice Director of Milliman, provided detail of the work that actuaries in the USA perform within banks and bank-related functions. The key area of involvement is in the mortgage market, mainly driven by property-casualty actuaries.

The US Financial Accounting Standards Board's (FASB) current guidance does not require banks to set reserves for bad debts for mortgages until a mortgage payment is delinquent by 60 or 90 days. The new FASB requirement which is referred to as the ' Current Expected Credit Loss' will require banks to use a more sophisticated approach to set a lifetime bad debt reserve for mortgages. This new requirement is effective in 2019. CAS members in the US have been doing lifetime reserving work for their mortgage insurance clients for years. This hopefully will create opportunities for CAS members to do work for banks in the US.

The key challenges to execute these tasks are access to and quality of data, analysis skills and model building skills. This development is like the transition to IFRS 9 that dealt with recognition and measurement of financial instruments. The standard is being implemented in South Africa from the beginning of 2018. This is a critical area for actuaries to get involved as the skill-set required for this new approach is firmly within actuarial territory.

Brian described the performance of subprime loans by several risk characteristics, clearly displaying the need to stochastically model credit risk for the mortgage market. They have more recently developed default score-cards and repurchase score-cards to improve risk management and optimise customer lifetime opportunities. They have displayed the value the actuaries are bringing to credit-based organisations by discussing how the models are being used across the organisations. The continuous assessment of these models and the risks of these products also require actuarial skills.

Brian discussed credit model framework with the audience to display the need for innovative credit risk modelling. Once again, this is extremely valuable in mortgage analysis and risk management. The role of actuaries in bringing independence and transparency was echoed by Brian as a critical value-add that is required by banks.

Canada

Erik von Schilling, the Vice President of Pensions and Treasury Investment Management with the Canadian Imperial Bank of Commerce and the co-Chair of the IAA Banking Working Group, discussed the progress that the Canadian actuarial profession has made in penetrating the banking sector. To date, the advancement of actuaries within banks has mainly been at an individual level, as opposed to an organisational level. The key areas of banks where actuaries currently operate are credit and mortgage insurance; asset management; HR benefits and other insurance-related benefits. Erik described his journey within banks working in the Treasury, asset liability management and capital management. He described the value of balancing the business objectives and the statistical rigor required of actuaries.

Erik identified key opportunities for actuaries in Canada and other jurisdictions. These include IFRS9, institutionalising enterprise-wide stress testing; retail product acquisition, profitability and collections; corporate and commercial credit management; operational and market risk modelling; and credit insurance.

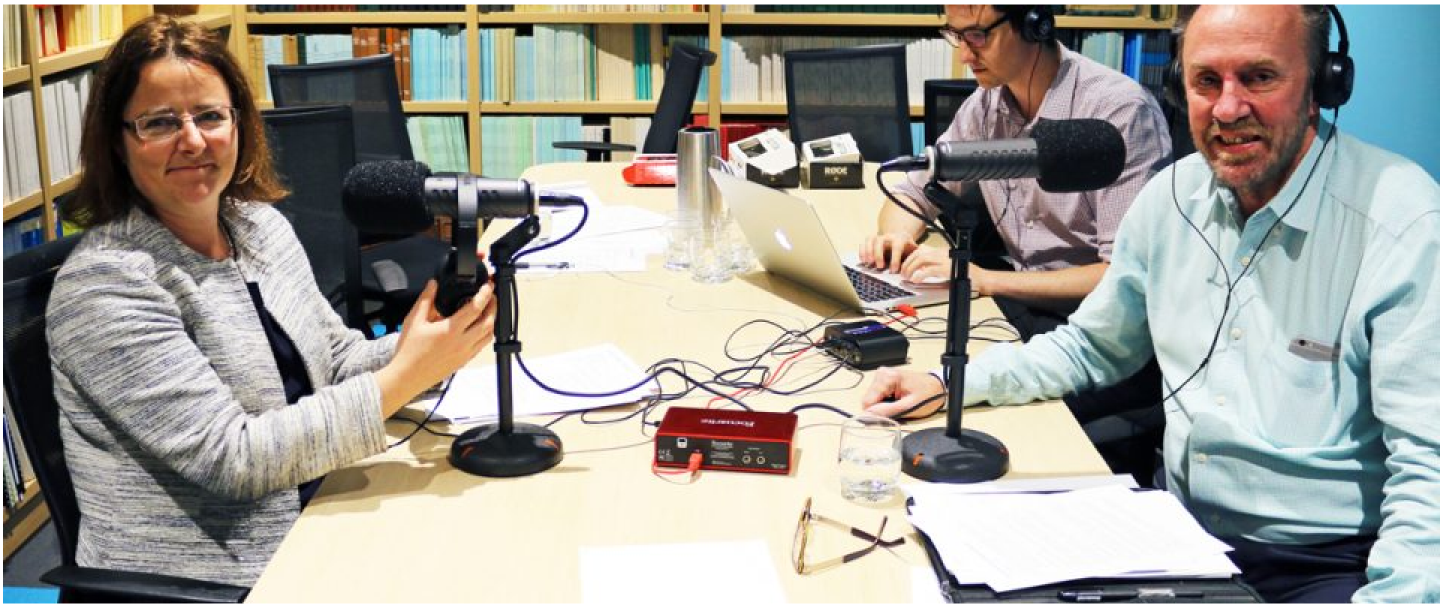
Martin Collins (United Kingdom), Jennifer Lyon (Australia) and Kudzai Chigiji (South Africa) joined them for a lively panel discussion where they answered a range of questions covering education, CPD opportunities, entering banking as an actuarial student and challenges for (and from) banking employers when recruiting and training actuarial students.

However, there was a consensus that individuals need to learn about the overall business to deliver value in a bank. The key challenges that are faced are lack of a community within banks which identifies as being 'actuarial'; lack of support from leadership within banks and the member associations; poor overall branding of actuaries outside of insurance, healthcare and pensions; and the strong requirement to up-skill to be able to navigate the banking world.

It was clear that even with the right curriculum, there is a significant amount of work that needs to be done between the profession and banks, and within the banks themselves to ensure that the opportunities for actuaries are more readily presented.

I was heartened by the fact that our Banking Practice Committee is working steadily to develop our banking course and to develop a network of banking actuaries to promote the profession's skill set within that sector. Australia is certainly on par with other Institute's in its efforts to create pathways for the profession into banking.

The presentations made by the speakers can be found on the IAA Banking Working Group website.



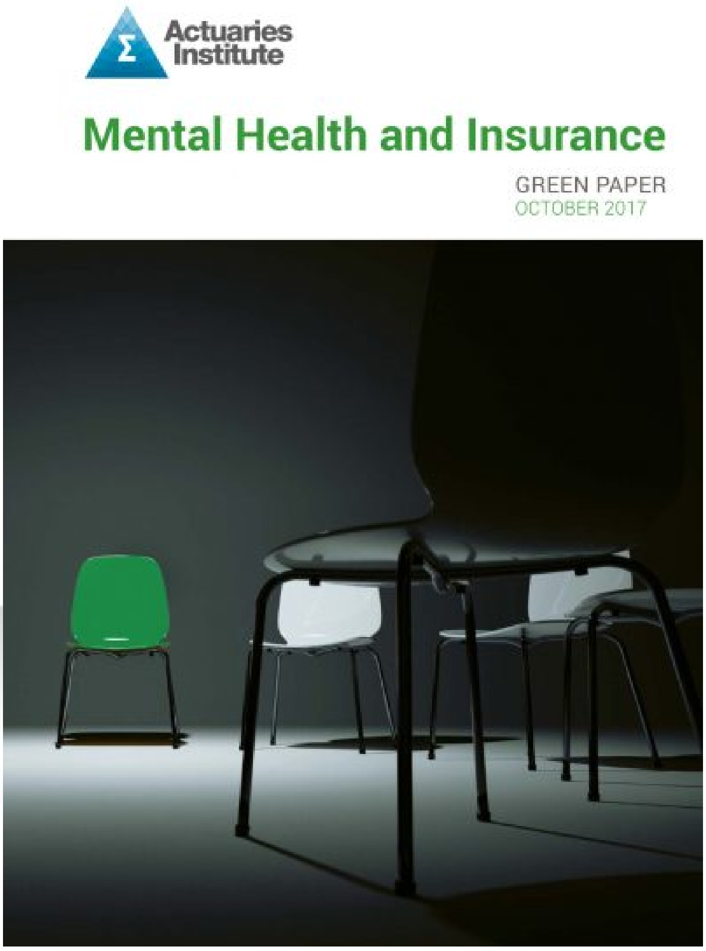
Mental Health and Insurance - finding a better way

By Geoff Atkins

Reading time: 4 mins

Co-author of the Institute's latest Green Paper 'Mental Health and Insurance' lets us in on the work behind the scenes, and tells a story to get us thinking - how can we find a better way to insure mental illness?

Mental Health and Insurance (the Green Paper) was published by the Institute recently and is receiving great feedback. About a year ago I reluctantly agreed to draft it, and due to the hard work of my colleagues Sue Freeman and Ellen Adamson, along with input from innumerable people, we made it.



So what? Well, it was a big 'phew' from me, Sue and Ellen. For the Institute, of course, it's a big tick off another achievement for their public policy work and strategic plan. So is that all?

Well, it's up to you. The information in the paper, including the nine suggestions about how to do things better, as well as the stimulation from the Institute's PR machine, provides the perfect opportunity for interested organisations and people to get a renewed sense of collaboration and optimism. How long will that opportunity remain open? A month, maybe a year - certainly not forever. Together, each of us – people and organisations – can make a difference just by talking about it and encouraging action.

What's that, you haven't read the paper? Oh, I thought everybody read it the weekend of its release. Come on – the summary is only three pages! Not to worry - there's a cool podcast series from the Institute called '[Peace of Mind]' (see above photo of me recording Episode 1 with Elayne Grace). The real purpose of this posting, though, is to entice you to have a look at these short videos I made with my personal thoughts about the subject.

And to whet your appetite, here is a little story.

A friend of mine had a hard time at work – feeling stressed, unappreciated, with a boss not interested and a colleague undermining her. She put up with this for a while but she was going downhill quickly.*

She figured she had an HR issue and plucked up the courage to open up with her HR manager about what was happening. After some discussion she agreed to make a formal complaint so that HR could conduct a proper investigation.

Of course once the HR investigation was underway and with help from the office grapevine, she soon became very unpopular. There was even a bit of vilification - 'how dare you accuse me', 'gosh you've really destroyed the morale around here'.

In the end, the HR investigation didn't determine that anyone did wrong to my friend, instead suggesting that perhaps she should look for another job.*

Now she had an Industrial Relations issue. Her union rep said that was constructive dismissal – and she should take it to the Fair Work Commission, and they had a lawyer to help her. Not much joy – at conciliation her employer offers through gritted teeth her old job back, but that doesn't seem like a good outcome at all! Instead three months pay ends the haggling by the lawyers. Another case closed.

Now my friend starts seeing her GP more and more, trialling a couple of anti-depressant medications. Her GP mentions that Medicare will pay for a 12 session Mental Health Program. What has she got to lose?

More helpful advice from the union. She has a workers compensation claim. She finds the workers' comp people very responsive – and the rehabilitation consultant appears the next week to get her back with her employer. What sort of an idea is that? Anyway, her sick leave has long expired and she has to live. Her GP now gives her a 'fitness certificate' every fortnight saying she is not fit for work because she has an Adjustment Disorder with Mixed Anxiety and Depressive Mood.

A few psychiatric examinations later, having told her same story about 15 times, she gets her workers' compensation claim accepted. At least that will provide income for two years. Sadly, she deteriorates and does badly over time with too many different medications, and too many psychiatrists telling her different things.

Now she is enjoying nothing much, and can't even get out of bed before noon most days. She has been drinking more and more –over a bottle of wine a day – but why should she try to give up? At least she now has some sort of routine in life, and the workers' compensation people aren't bothering her so much. But now, can you believe the compensation stops after two years? What good is that?

Maybe she'll have to start drawing on her super. What about the insurance that comes with the super fund? Perhaps if she died she'd get a decent payout and finish off the mortgage on the flat. But there is a better way – there is disability cover in the super fund as well as death. Now we have a TPD claim.

The insurance company talked a lot about getting her back into the workforce. She says 'I can't, just leave me alone and pay my rightful money'. More lawyers, more psychiatrists, threats of litigation. But in the end her claim was successful.

In this case there were four problems: HR, IR, WC, TPD. Four systems. Four lots of experts.

As a wise man once said to me "if you are in this system for a couple of years you are guaranteed to be crazy". My friend wasn't happy, but neither were her employer, the GP, the* *workers' compensation insurer or the TPD insurer. Maybe the lawyers and the psychiatric specialists were? I'm not sure.*

Let's find a better way. Good outcomes don't cost money, they save money.

(**actually an imaginary friend*)

Actuaries report takes the lead in national mental health and insurance conversation

By Elayne Grace

Reading time: 2 mins

Lucy Brogden, Co-chair of the National Mental Health Commission thanked and congratulated the Actuaries Institute on a "timely" report at the 'Mental Health and Insurance' Green Paper media launch.

Lucy Brogden launched the Institute's latest public policy report at an intimate media launch on Thursday 19 October. Institute CEO David Bell welcomed journalists, and co-authors of the paper Sue Freeman and Geoff Atkins (pictured below) of Finity Consulting, to the launch where Lucy discussed the Paper in the context of the Commission's work to improve outcomes for people suffering mental health conditions in Australia.

“Thank you for the contribution that this will bring," said Lucy (pictured below left).

“I’ve been involved the mental health insurance conversation for at least 12 years, and for me this is a significant sign of progress and collaboration with the mental health sector and insurance, and actuaries being able to sit down and have a conversation and pave a clear path forward."

"The paper has some great recommendations and areas of focus, and I hope to see real change off the back of it," - Lucy Brogden.

The paper explores the difficult problem of insuring mental health, including subjectivity around diagnosis, lack of reliable data, and ineffective regulatory frameworks. It also highlights eight areas for improvement from underwriting to better claims management and the overarching key: collaboration.

“I think it’s important that we make sure that we understand what might be unintended consequences [in the insurance process for people] but also appreciate the commercial reality for the insurers in trying to understand the risks, and I think that’s one of the credits of this report, is that it actually identifies some of these barriers, but also ways through," said Lucy.

I spoke with Lucy following the launch, as part of our new podcast show 'Peace of Mind' where we discussed the Commission's mandate to implement the Government’s Fifth

National Mental Health and Suicide Prevention Plan, amongst other things.

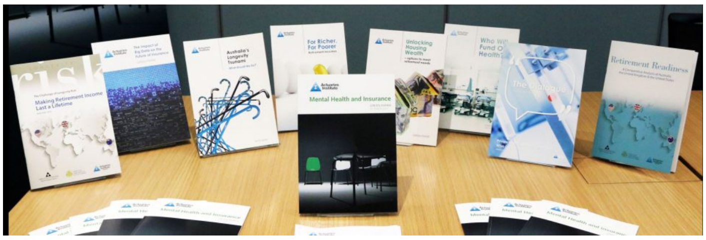
"In terms of the Commission's work, this [the Actuaries Green Paper] is particularly timely in our own work plan," said Lucy. "We've identified equitable access to insurance products as a priority for us and we're engaged in conversation across the insurance sector along with groups like the Institute. We're in dialogue with APRA around the Appointed Actuary conversations. For us particularly topical is Private Health Insurance (PHI) with Minister Hunt announcing the review and particularly focused on mental health just last week. We've actually commissioned the Australian Private Hospitals Association to do a briefing paper for us on the issues around PHI but also the opportunities that the PHI sector has in understating and managing the burden for us."

Much effort went into this paper, it was a year long process, as Geoff Atkins outlines in his reflective article on the process here.

I'd also like to acknowledge our committees: LIWMPC, HPC, GIPC and PPCC and of course our amazing HQ Communications and Marketing team who all contributed to making this achievable.

The 'See what we see' campaign was also updated to reflect the paper, leveraging off it's thought leadership, and promoting the the varied work of actuaries and our great profession. Click the images below to watch two short (30 second) videos about the Green Paper, created for the campaign.

The Institute has produced a suite of Green and White Papers, as well as it's new thought leadership series: 'The Dialogue' covering issues from genetic testing and life insurance to private health insurance bill shock.



Wealth Management Investment Competition 2017-2018

By Martin Hickling

Reading time: 4 mins

In late July to early August 2017 we put 20 demanding propositions to you as if you were an Investment Analyst / Economist. We had 154 brave souls who took up the challenge and entered this year's Wealth Management Investment Competition. They are looking to win bragging rights (and some fantastic prizes) across the Actuarial profession!

The 'wisdom of actuarial crowds' for 2017-18

The key messages to the Portfolio Manager for the next financial year based on the majority views from participants were:

- There won't be a crisis in Greece in 2017-18, so the Greek bond yield will remain below 7%.
- Don't worry about the iron ore price, it is expected to stay above US$50/t.
- The Japanese economy is not expected to suffer from negative real GDP growth.
- Investment markets are looking fine and investment returns are very likely to be above 5.0%.
- The Japanese 10-yr bond yield is highly likely to remain under 0.20%.
- There's not much chance of a correction in US equities, with the S&P 500 index expected to remain above 2,400.
- The RBA is likely to raise rates at least once in this financial year.
- Volatility of the Australian equity market is likely to remain modest at under 18.0.
- The Australian 10-yr government bond yield is likely to rise to above 2.75%.
- It is quite unlikely that Australian house prices will fall.
- China is unlikely to see a manufacturing recession, with the PMI holding above 50.0.
- The US unemployment rate is expected to remain below 4.7%.
- The gold price is expected to remain below US$1,400.
- The oil price doesn't have much chance of rising above US$55.00/bbl.
- The Fed is likely to raise rates at least twice in this financial year.
- Australian inflation-linked bonds will trade to trade up, with a yield of more than 1.30%.
- Melbourne weekend residential auction clearance rates will be above 70% next Autumn.
- The AUD/USD exchange rate won't see a lot of downside and should remain above 75.0 cents.
- CBA is expected to be a better performer than BHP, but it is a close call.
- It is a tight call on whether the S&P ASX 200 price index will be above or below 6,000 at 30 June 2018.

Scaling factors for each proposition

Each proposition is scaled depending on the responses from participants in the competition, somewhat like a parimutuel betting pool. The scaling factor used for each proposition is: the sum of all 'yes' and 'no' answers divided by the number of correct answers. Those participants with correct answers for a proposition will be given one point multiplied by that proposition's scale factor. Incorrect answers will be given a score of zero points. Any 'unsure' answers do not affect the scale factor and will be allocated one point for that proposition.

The following table shows the scaling factors for each proposition:

Proposition	Scaling factor Yes	No
The Greek 10-yr bond yield will be above 7.0% as at 30 June 2018	4.53	**1.28**
The iron ore price will be below US$50/t as at 30 June 2018	4.36	**1.30**
The seasonally adjusted annual rate of Japanese real GDP for March quarter 2018 will be negative	4.32	**1.30**
The investment return for the median balanced superannuation fund for the year to May 2018 will be lower than 5.00%	4.03	**1.33**
The Japanese 10-yr bond yield will be above 0.20% as at 30 June 2018	3.81	**1.36**
The S&P 500 index will be below 2400.0 as at 30 June 2018	3.50	**1.40**
The RBA cash rate target will be 1.75% or higher as at 30 June 2018	**1.40**	3.49
The S&P ASX 200 VIX will be trading above 18.0 as at 30 June 2018	3.38	**1.42**
The Australian 10-yr government bond yield will be above 2.75% as at 30/6/18	**1.43**	3.33
The Australian Bureau of Statistics (ABS) weighted average eight capital city residential property price index March quarter 2017 to March quarter 2018 will be negative	3.32	**1.43**
The China General Manufacturing PMI will be below 50.0 for May 2018	3.07	**1.48**
The reported US unemployment rate for May 2018 will be above 4.7%	3.02	**1.49**
The USD gold price will be above US$1400 as at 30 June 2018	2.88	**1.53**
NYMEX WTI crude oil price will be above U$55.00/bbl as at 30 June 2018	2.58	**1.63**
The Federal Reserve target rate upper bound will be 1.75% or higher at 30/6/18	**1.76**	2.32
The Australian inflation-linked gov bond yield will be above 1.30% as at 30/6/18	**1.77**	2.31
Melbourne weekend residential auction clearance rates for Autumn (March – May inclusive) 2018 will average under 70%	2.29	**1.78**
The AUD/USD rate will be below 75.0 cents as at 30 June 2018	2.16	**1.86**
In the 12-months to June 2018, including dividends and franking, the share price of Commonwealth Bank (CBA) will outperform the share price of BHP Billiton (BHP)	**1.93**	2.07
The S&P ASX 200 price index will be above 6000 as at 30 June 2018	2.06	**1.95**

The correlations and other details

The survey had 154 participants, including 17 participants from outside Australia. Each response was unique. Similar to last year, one participant took the 'index-tracker' passive option and replied with 20 'unsure' responses. They are now guaranteed to get a 'market-index' 20 points. Generally, however, participants were pretty sure about their views, with the average number of 'unsure' responses of 1.35, with a median of 0.

Participants were most 'unsure' about the Japanese real GDP growth rate and if it would be negative in March 2018, with 20 participants responding as 'unsure'. The next proposition with the most 'unsure' responses was if the Greek 10-year bond yield would be above or below 7.0%. Participants also showed some hesitancy in forecasting the oil price. Participants were least unsure about their views on the Australian 10-year government bond yield and what the RBA will do with cash rates.

The correlations between responses were strongest for the interest rate propositions. There was a 0.56 correlation between the responses for the propositions relating to the Australian 10-yr government bond yield and the inflation linked bond yield; and a 0.28 correlation between the responses for the propositions relating to the Australian 10-yr government bond yield and the RBA cash rate.

Interestingly the strongest positive correlations to the responses to the proposition for the median balanced superannuation fund to return less than 5.0% were the Melbourne auction clearance rates falling below 70%, falling Australian house prices, and a Japanese recession. The strongest negative correlations were to a rising RBA cash rate and to a stronger Australian share market.

The proposition of a fall in the iron ore price had a 0.21 correlation to the proposition that China General Manufacturing PMI would fall below 50.0.

The proposition for a fall in property prices showed a 0.26 correlation with a drop in China General Manufacturing PMI to under 50.0, a 0.31 correlation with a fall in Melbourne auction clearance rates below 70%, a 0.26 correlation with a rise in the S&P ASX 200 VIX index above 18.0, and a negative 0.20 correlation with a rise in the RBA cash rate.

The proposition for Greek 10-yr bond yields to trade above 7.0% was most strongly correlated at 0.23 with the proposition that Japanese 10-year bond yields would rise to above 0.20%.

The responses to the proposition of a sharp rise in the gold price were correlated at 0.21 with the proposition of Melbourne auction clearance rates falling below 70%; and a 0.20 correlation with the proposition that Japanese real GDP growth would be negative.

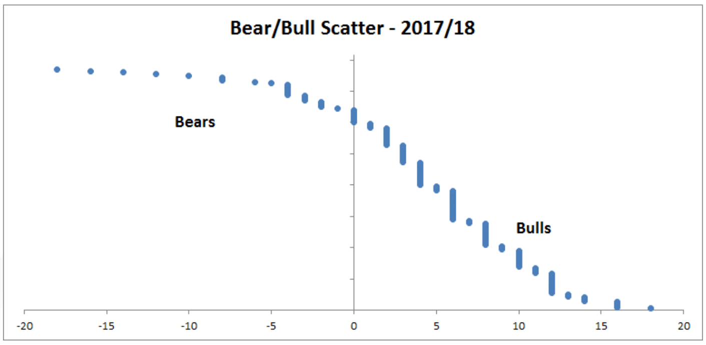
The two propositions with responses that had no correlation above +/- 0.20 with the responses of any other proposition were that CBA would outperform BHP, and that the oil price would be above US$55.0/bbl.

Bulls and Bears

For the basis of this analysis, and nothing to do with the competition, 'yes' responses to each proposition have been assessed as either 'bullish' or 'bearish'. Some are pretty clear, such as if equity markets are to rise, others are more subjective – for example a sharp rise in the gold price was classified as 'bearish'. Overall, 13 of the 'yes' responses to propositions were identified as 'bearish' and seven of the 'yes' responses to propositions as 'bullish'.

The participants to the survey were assessed in total as quite 'bullish', with a median of five more 'bullish' responses than 'bearish' responses.

This scatterplot shows the distribution of bearish / bullish responses.



What has happened so far

It is still early stages in the competition, but a few of the majority predictions are looking shaky. Will the RBA really increase cash rates after those retail trade figures? Could the oil price get above $55.00/bbl? It is already pretty close. BHP is off to a flyer relative to CBA. Can CBA fight back? And biggest of all, could Australian house prices actually fall?

Proposition	Initial level	Current level
The Greek 10-yr bond yield will be above 7.0% as at 30 June 2018	5.42% @ 6/17	5.47% @ 10/17
The iron ore price will be below US$50/t as at 30 June 2018	US$62.90/t @ 6/17	US$59.30/t @ 3/11/17
The seasonally adjusted annual rate of Japanese real GDP for March quarter 2018 will be negative	Jan - Mar '17: + 1.0%	na
The investment return for the median balanced superannuation fund for the year to May 2018 will be lower than 5.00%	+9.06% @ 5/17	na
The Japanese 10-yr bond yield will be above 0.20% as at 30 June 2018	+0.086% @ 6/17	+0.07% @ 10/17
The S&P 500 index will be below 2400.0 as at 30 June 2018	2423 @ 6/17	2588 @ 3/11/17
The RBA cash rate target will be 1.75% or higher as at 30 June 2018	1.50% @ 6/17	1.50% @ 10/17
The S&P ASX 200 VIX will be trading above 18.0 as at 30 June 2018	13.4 @ 6/17	10.9 @ 3/11/17
The Australian 10-yr government bond yield will be above 2.75% as at 30/6/18	2.60% @ 6/17	2.67% @ 10/17
The Australian Bureau of Statistics (ABS) weighted average eight capital city residential property price index March quarter 2017 to March quarter 2018 will be negative	+10.2% in Mar '17	na
The China General Manufacturing PMI will be below 50.0 for May 2018	51.2 @ 5/17	na
The reported US unemployment rate for May 2018 will be above 4.7%	4.3% @ 5/17	4.1% @ 10/17
The USD gold price will be above US$1400 as at 30 June 2018	US$1241 @ 6/17	US$1276 @ 3/11/17
NYMEX WTI crude oil price will be above U$55.00/bbl as at 30 June 2018	US$46.04 @ 6/17	US$54.38 @ 10/17
The Federal Reserve target rate upper bound will be 1.75% or higher at 30/6/18	1.25% @ 6/17	1.25% @ 10/17
The Australian inflation-linked gov bond yield will be above 1.30% as at 30/6/18	1.10% @ 6/17	1.13% @ 10/17
Melbourne weekend residential auction clearance rates for Autumn (March – May inclusive) 2018 will average under 70%	Autumn '17: 79.9%	na
The AUD/USD rate will be below 75.0 cents as at 30 June 2018	76.9c @ 6/17	76.7c @ 10/17
In the 12-months to June 2018, including dividends and franking, the share price of Commonwealth Bank (CBA) will outperform the share price of BHP Billiton (BHP)	CBA $82.81; BHP $23.18 @ 6/17	CBA -2% to $77.63; BHP +18% to $26.54 @ 10/17 incl ff divs
The S&P ASX 200 price index will be above 6000 as at 30 June 2018	5721 @ 6/17	5909 @ 10/17

Summary

The actuarial ‘wisdom of crowds’ did pretty well last year, but can we show that it wasn’t just a fluke? The ‘bears’ have thinned out – maybe after last year’s poor performance, where the ‘bulls’ dominated the prizes. Let’s hope our Portfolio Manager boss hasn’t been sent the wrong message this year, and subsequently will be ‘long and wrong’. It is now just a matter of time waiting to see who of our participants have ‘called it well’ and those who have ‘bombed out’.

Under the Spotlight – Asia series - Louis Lee

By Louis Lee

Reading time: 4 mins

The skills Louis Lee learned during his time working in Australia, he says, are “still quite advanced” compared to what he sees in many parts of Asia. Here, the *APAC CFO of Scor Global Life goes* ‘Under the Spotlight’ in this first instalment in our new Asia Spotlight series, to reveal his undying love for music production and appetite for new adventures.

Summarise yourself in one sentence… Always looking for new challenges and never take no for an answer.

My interesting/quirky hobbies... Music production, however never able to have enough time to work on it as family and work are now the priorities!

The sport I most like to watch... I am a mad sports fan, favourites are tennis, cricket, basketball and football

My favourite artist/album/film... I cannot get away from the original Star Wars trilogy – I could watch them a million times and not get bored!

For music, I am a huge Leon Lai and Jay Chou fan. My recent favourite album is *History of Tomorrow* by Taiwanese band Mayday.

The person I’d most like to cook for... My wife and kids. Cooking helps me relax and allows me to engage with my family through food.

I’m most passionate about…… The project or work I'm currently involved in. To enjoy work, you need to be passionate about it (every time), no matter the topic or scope.

What gets my goat… Human stumbling blocks. I truly believe that if everyone puts their mind to find a solution, a solution can be found. I cannot understand why people give up too easily and do not want to think beyond the boundaries.

Not many people know this but I… published a song whilst I was young. I do miss those days!

If I hadn’t become an actuary, I would be... a music producer, and own a music studio. I still have these ambitions.

Why and how I became an actuary... the stereotypical answer would be that I was good at maths and I heard actuaries make good money. That is not far from the truth although I have come to enjoy being an actuary as it offers a perfect combination of applying an analytical mindset to real business problems.

Where I studied to become an actuary and qualifications obtained... I started at UNSW in one of the first batches of actuarial studies, then qualified whilst working in Australia.

My work history... My first position was an analyst at Allianz Australia. I still get in touch with my colleague who sat next to me on my first day. Interestingly, virtually the whole team, including the bosses, are now based in Singapore.

I then spent six very enjoyable years at Suncorp in the pricing area, firstly in CTP, then motor pricing. Lots of SAS and GLMs. The skills I learnt during that time are still quite advanced compared to what I now see in most parts of Asia.

I then moved to Hong Kong as a pricing actuary on life reinsurance – a big change! It was a challenge at first but luckily, I managed to utilise my big picture skills when working with (a lack of) reinsurance data.

The company I worked for was bought by Scor within 12 months of me moving to Hong Kong. I transitioned into a reinsurance structuring role for the APAC region before moving into a market head role for Hong Kong/China/Taiwan. This was the first time I was able to move beyond my actuarial skills and build my strategic thinking and people management skills. It was good fun building up a team from scratch, and growing the business together with the new team.

My current role is the CFO of the APAC region, where the main challenges are to deliver on the plan for a high growth region, and to manage capital and expenses in the meantime.

What I find most interesting about my current role... Working with different colleagues with different cultures across the region, such as Beijing, Tokyo, Seoul, Mumbai and Sydney. I have come to learn to respect the different cultures in order to have successful working relationships. Success is built on trust.

My role's greatest challenges... are being able to produce high quality output with less than ideal infrastructure. That means people have to work very hard. In order to continue, transformation and automation (RPA?) will be needed.

Who has been the biggest influence on my career (and why)... I would say all of my managers. I have been very fortunate to have had great managers who have been my de facto mentors. I can say that I have learnt from each and every one of them - they have formed part of the DNA for my work habits and way of thinking.

If I were President of the Institute, one thing I would do is...… increase the level of interaction with Institutes across the globe, including more in developing countries and Asia where I think Australian actuaries are highly regarded and can contribute a lot to those industries.

At least once in their life, every actuary should… work abroad, and also, take a sabbatical and see the world.

My best advice for younger actuaries… is to rotate into different roles (whether it is pricing or reserving or finance); different industries (Life, GI, Health, Banking, Investments, Data analytics); and different counties (Asia offers many opportunities). Life is short, try out different things, and I can guarantee you will find your experiences very rewarding.

If I could travel back in time I would… not change much. I have made mistakes but value each lesson I have learnt. There had been times that were bumpy but I am stronger because of them – in fact it makes the good times even sweeter.

If I won the lottery, I would… Donate all of it.

Jeff Humphreys awarded the 2017 Melville Prize

By Jeff Humphreys

Reading time: 4 mins

Congratulations to Jeff Humphreys, winner of the 2017 Actuaries Summit Melville Prize for his paper on Group Insurance.

We are delighted to advise that Jeff Humphreys has been awarded the 2017 Actuaries Summit Melville Prize for his paper *Group Insurance – Structures of the Future*. The paper aimed to explore the structures of the future that will deliver a stable and efficient market for the delivery of death and disability benefits for superannuation fund members.

The prize review panel concluded:

This paper sets out a proactive, and very different, response to the deterioration of the group insurance industry in efficiency, stability and reputational damage since 2012. It introduces a framework for rating a typical current insurance structure against nine different criteria and in doing so introduces some new concepts such as:

- 'Benefit Efficiency', defined as "the proportion of premium that is paid back to members … after 'leakage' from administration costs, capital cost including investment earnings and stamp duty',
- 'Mismatch Risk", the concept that the interests of superannuation fund trustees (member focus) and insurers (profit motive) are not aligned, and
- 'Market Efficiency', which is high when there are many willing buyers and sellers – this may have been the case 20 years ago but not so prevalent today.

The same concepts are then used to asses nine potential alternative structures, six of which are essentially modifications of current structures and three of which introduce structures not currently used.

At the heart of the paper is the consideration of the superannuation fund member as the prime beneficiary.

The paper is timely, particularly given recent developments from regulators and industry bodies. Superannuation fund trustees are under pressure from regulators to focus on member outcomes, most notably APRA's 'quality member outcomes test' which includes consideration of whether insurance offerings may be inappropriately eroding members' retirement benefits. The paper was written before this announcement, but certainly addresses its concerns from a group insurance perspective.

The paper concludes that current insurance structures lead to suboptimal outcomes for members of superannuation funds with large swings in premiums, terms and conditions and value for money at levels lower than it should be. It concludes that limiting default cover and tightening terms and conditions via 'improved' benefit definitions are not the answer and the industry should be encouraged to think of alternative structures, and always through the lens of improving member outcomes.

The paper certainly encourages us all as practitioners to think differently

Abstract

The group superannuation insurance sector of the Australian economy is gifted by the community with compulsion, both from the Superannuation Guarantee contribution which helps finance premiums and from the compulsory Opt Out provisions for members in relation to death and TPD cover.

Over the last 20 years the industry has moved from insuring thousands of small funds whose premium was determined from general industry experience to predominantly a few large and very large funds whose premium is determined by their own experience.

Group death and disability cover provided through superannuation funds, particularly default cover, is one of the most valuable benefits derived by Australians from our superannuation system.

However, the industry in its current form is fundamentally unstable because of the large mismatch risk that the trustees of superannuation funds carry, the very thin, oligopolistic market of suitable alternative insurers and the barriers to entry to the industry and barriers imposed on insurers wanting to compete with incumbent insurers.

Further, the industry has been unable to deliver economies of scale and has a Benefit Efficiency that is low and stagnant. A large component of the premium of large funds is predictably recycled and the friction involved in this process is costly to members.

These factors produce suboptimal outcomes for members of superannuation funds with large swings in premiums, terms and conditions and value for money at levels lower than it should be.

Arguably death and disability benefits are more valuable to members than voluntary retirement benefits as they provide financial support in unexpected circumstances and at a time when members are younger, have lower account balances (and assets generally) and are more likely to have financial dependants. It is also a time of life when social support is less generous particularly in relation to death.

The industry is currently in the process of limiting default premiums by winding back these benefits as the way it envisages addressing the issue of inappropriate erosion of account balances, the assumption being that current structures and approaches are the best available. This paper sets out how better structures could also be used to address this issue for members, retaining benefit levels where appropriate.

This paper explores the Mismatch Risk and Benefit Efficiency and sets out alternative structures that are being used or could be used by trustees to create a more stable and efficient delivery of death and disability benefits for superannuation fund members. The alternative structures meet the APRA benchmark that financial promises are met in all reasonable circumstances. As always, there is no single optimal solution for all funds.

Read the paper

View the presentation

Listen to the audio presentation

About the Melville Prize

The Melville Actuaries Summit Prize is funded by the late Mr Tig Melville and is presented to the author of a paper considered by the judging panel to have:

- effected a significant advance in the profession's understanding or knowledge of a specific subject or sphere of knowledge; or
- collected or presented existing material in such a way as to raise the awareness of the profession regarding an important contemporary issue.

The Judging Panel will award a prize only if the subject paper is considered sufficiently meritorious. The monetary value of the prize is $5,000.

Actuarial Hackathon – the survey results

By Jennifer Lang *(jennifer_h_lang@nab.com.au)*

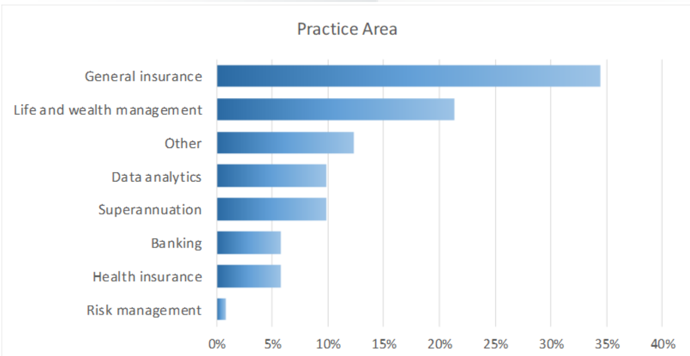
Reading time: 2 mins

A recent Member survey aimed to gather information and determine the level of interest in an actuarial hackathon. In this article, Jennifer Lang, author of Actuarial Eye, shares survey results.

The Young Actuaries Program team has been exploring an actuarial hackathon. The concept is that the Institute facilitates an event where teams of actuaries put their skills to use helping not-for-profits with some particularly tricky problems where actuarial skills would be helpful. So a few weeks ago, we sent a survey to members to find out if there would be any interest, and if so, what it would look like.

We were thrilled by the response - there were over 120 responses, which was fantastic. The overwhelming majority were not just keen to be involved in a specific problem, but also to work with the selected charity following the hackathon to implement a solution if it couldn't be done in the time available.

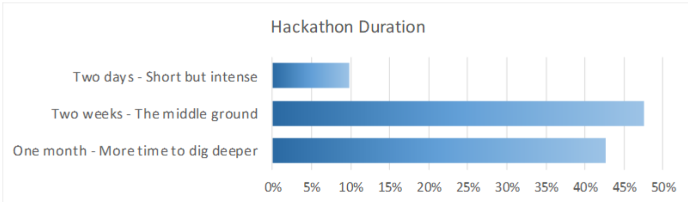
We had all practice areas represented, which was great.



And we had a great mix of levels of experience also, with experience ranging from people still at university to 16 people with more than 25 years of working experience.

As an organising team, we were keenest to understand two things. Firstly, what kind of format should we be looking at? A traditional hackathon is generally held over a 24 -48 hour period, with an intense piece of work culminating in outputs at the end of the day/weekend.

Our respondents, though, are keen to have a longer period to really add value to their project, with most people wanting either two weeks, or a month.



There was interest in adding value in a number of different ways – from deep data analytics, through to analytic and financial skills, to bringing commercial experience to an unfamiliar problem.

We are going to go ahead with a longer form hackathon. We expect to spend the rest of this calendar year putting together teams, and not-for-profits, with the serious work to happen in May and June next year, culminating in presentations of the best solutions at an event in June.

We have over a hundred people who have given us their contact details so that they can get involved, and some very specific suggestions for not-for-profits who could make use of the actuarial skillset that we will be following up on.

So thank you to everyone who got involved in our survey. But it isn't too late! If you are interested, we will be sending a general expression of interest to all members within the next month, so please sign up so that we can organise some teams!

And if you would like to help with the organisation, we are particularly looking for some people to add to our committee to find the interesting problems from the not for profits. We're looking for people with some ideas of not for profits to approach, who would be happy to explain the value that our actuarial teams can add, and help the not for profit to define the problem so that we have the best chance of adding value to them. A great way to use your stakeholder management and marketing skills

If you are interested please contact Lisa Ye on lisa.ye@suncorp.com.au.

The organising committee

Avanti Patki
Lisa Ye
Zhan Wang
Jennifer Lang
Lily Meszaros

An update from the Premium Allocation Approach work stream

By Brendan Counsell

Reading time: 3 mins

Here, Brendan Counsell of the Institute of Actuaries' AASB 17 Implementation Taskforce provides an update on the 'premium allocation approach', or PAA to assist Australian actuaries involved in implementing the new accounting standard.

The PAA work stream is another of the technical groups of the Institute of Actuaries' AASB 17 Implementation Taskforce which overall is focused on producing guidance for Australian actuaries involved in implementing the new accounting standard.

Previous updates have covered measurement approaches available under AASB 17 – namely the general model ('building block approach' or 'BBA') and the variable fee approach ('VFA'). A third measurement approach available under AASB 17 is the 'premium allocation approach', or PAA. The PAA is a simplified model for short duration contracts and is expected to be available for many general insurance and health contracts as well as some life insurance contracts. This is the topic for this month's update.

The PAA work stream meets monthly and includes a wide range of participants from general insurance, health insurance and life insurance backgrounds.

What is the premium allocation approach?

The premium allocation approach measures the 'liability for remaining coverage' associated with a group of insurance contracts at the end of a reporting period as the sum of:

- The opening liability, *plus*
- Premiums received during the period, *less*
- Insurance acquisition cash flows (if applicable), *plus*
- The amortisation of insurance acquisition cash flows during the period (if applicable), *less*
- Allowance for the time value of money if there is a significant 'financing component' associated with the contracts, *less*
- The amount recognised as revenue for coverage provided during the period, *less*
- Any 'investment components' (i.e. payments made to policyholders that are not contingent on an insured event) transferred to the liability for incurred claims during the period.

In summary, the PAA method is not dissimilar to measurement approaches applied under the current Australian accounting standard AASB 1023 for general insurance contracts and also simplifications applied for valuing certain types of life insurance contracts under AASB 1038.

The 'liability for incurred claims' is included within the scope of the PAA work stream due to its significance for many short duration contracts. It is important to note, however, that the liability for incurred claims is relevant for all insurance products regardless of the measurement approach used to calculate the liability for remaining coverage (i.e. PAA, BBA or VFA).

Which products qualify for PAA?

Brendan Counsell speaking at the September Insights session

PAA can be used as the measurement approach if, at inception of the group:

1. The coverage period for each contract is one year or less, *or*
2. The entity reasonably expects that such simplification would produce a liability for remaining coverage for the group of contracts that would not differ materially from that produced using the building block approach.

Defining the coverage period based on the 'contract boundary' can be subjective and is the focus of another work stream to be covered as part of a future update. Suffice to say that PAA is expected to be available for many general and health insurance contracts and some life insurance contracts.

What are the key interpretations on which the PAA work stream is focused?

A key focus for the PAA work stream is how PAA eligibility is assessed for contracts with a coverage period of more than one year, i.e. contracts for which PAA does not *automatically* apply. The PAA eligibility criteria are subjective with some key questions being:

1. How, and at what level, is materiality assessed when comparing outcomes against the building block approach? Can allowance be made for the materiality of the group of contracts to the overall financial statements even if the difference in outcomes is considered 'material' for the group of contracts?
2. What is meant by 'reasonably expects' when assessing uncertain future outcomes?
3. What is meant by 'significant variability' in the fulfilment cash flows for which the standard explicitly specifies that the PAA eligibility criteria are not met?

Many other professional and industry working groups, such as the International Actuarial Association and accounting bodies are concurrently focussed on these interpretations. The Institute of Actuaries' AASB 17 taskforce is monitoring external developments and incorporating these into its deliberations.

Other key topics that our PAA technical workstream is expected to cover for include:

- The pattern of revenue recognition over the coverage period.
- Circumstances in which a 'significant financing component' exists under the contract and allowance for the time value of money should be made.
- Specific considerations for reinsurance contracts measured using PAA.
- Considerations for transition to the new standard.
- Treatment of some industry-specific items such as risk equalisation and pooling mechanisms for certain types of health insurance and general insurance.

In summary, while the PAA is viewed as a 'simplified' method and certainly not as technically complex as BBA or VFA, there are plenty of subjective areas that can have significant implementation implications for insurers.

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