Newsletter
December 2011
The Society of Actuaries in Ireland

SAI Presidential Address

Contents:

Paul O'Faherty, SAI President

Paul O'Faherty, the new SAI President, addressed the Society on 22nd September 2011. The following is an extract of his Presidential Address - the full address is available on the Society's website.

Introduction

Society members are today responsible for the financial security of over 250,000 pension scheme members here in Ireland and of literally millions of life and general insurance policyholders both in Ireland and, through the IFSC, across the world. In this process, we certify insurance and pension liabilities of upwards of €200bn.

I believe we have been successful as a profession, because we have remained relevant to changing needs.

But, this is a position we certainly should not take for granted and that is why I have given my address the title *"Relevance in a time of change and turmoil"*.

Relevance to Ireland

We are the Society of Actuaries in Ireland and to put it very mildly, Ireland has been an interesting place to live and work in the past 3 years, as we have lurched from a property crisis to a banking crisis to a fiscal crisis to a sovereign crisis.

Through all this turmoil, it's certainly worth asking ourselves individually and collectively as actuaries - how relevant have we been in these most difficult of times?

When the analysis is done, we do have a creditable record of raising our voice and putting forward ideas in areas where we have specific expertise.

I believe, from this position there is now an unprecedented opportunity for the Society to act as a catalyst for longer-term thinking across a range of social policy issues.

Relevance in pensions

To make long-term financial and economic sense, defined benefit schemes need to take some investment risk. But, this is in conflict with their need, at the same time, to comply with short-term accounting rules and provide a high level of security to members in the event that a scheme is wound up. To resolve this long/short conundrum, the Society has consistently advocated and supported a move towards explicit risk-sharing between members and sponsors.

The Society has been also shining a light for years on the untenable gearing risk that the priority given to the growing proportion of pensioners has created for active and deferred members. This unfairness simply cannot be justified and is only going to get worse as schemes mature. Unfortunately, a lot of what we have had to say has fallen on deaf ears.

Continued...

SAI Presidential

At the end of the day, we are neither legislators nor regulators, but we must continue to promote change in areas that require action.

Today, we are in the dangerous position that we have no funding standard at all. Rather than embarking on more piecemeal change, we would urge the interim reinstatement of the existing funding standard - incorporating a risk controlled sovereign annuity facility. But, crucially, this should be accompanied by a fundamental and holistic review of long-term private pensions policy.

As regards pension tax, we have an irrational situation. One arm of the government wants sponsors and members to contribute more, while another has slapped on an arbitrary levy once the money has been paid over and is locked in. This is not to mention the other enacted and proposed restrictions of relief on contributions and benefits. I would urge the government to "stop the clock" on further explicit tax changes in 2012, to allow informed decisions to be made based on the current real situation on the ground.

We have all heard the stark "DB is dead" headline repeated in Society meetings and elsewhere.

For certain, there is an elephant in the room – yes, there are no new DB schemes; yes, many DB schemes have closed to new entrants and a number also to future service accrual; and yes, some, so far mostly smaller schemes, have decided to wind up altogether. But, the reality is that DB provision has an extremely long tail and, barring a major upheaval, will be with us for a very long time.

However, this is not to make the case for complacency. The market is changing and we need to form a more considered view of the likely nature and timing of that change and how we can maintain our relevance in retirement provision.

With this in mind, in the coming months we will be establishing a working party to consider these issues and the roles which actuaries can play in retirement planning in the future.

Relevance in insurance

In life insurance, I think it is to the credit of our members, particularly those who shoulder Appointed Actuary responsibilities, that policyholders have come through the crisis so far intact, although not entirely unscathed.

But, the challenges abound. Domestically, business volumes are down 50% from their peak in 2007. The market is also going through a period of ownership, change and consolidation. Actuaries are grappling too with how to allow for credit risk in assessing their sovereign debt exposures.

In general insurance, times are equally challenging. Reserving has never been an exact science, but, in a turbulent environment it is an even more difficult and uncertain process. The Society is actively considering how best to guide Signing Actuaries, who have responsibility for certifying the reserves, as they seek to communicate these inherent uncertainties.

The dominant influence across the whole insurance landscape is Solvency II. This will bring a new rigour and structure to the way boards think about and assess the financial condition of the insurance companies for which they are responsible. With its strong technical and mathematical foundation, Solvency II plays very much to our strengths as a profession.

Though as we build the new models and economic scenario generators which will drive it, it is important that we don't become mesmerised by the elegance of the mathematics and lose sight of the big picture. In the new world, while a good modelling ability and capability will be necessary, they will not on their own be sufficient.

Solvency II represents both an opportunity and threat to actuaries. The roles of Appointed Actuary and Signing Actuary will be no more. We have every reason to expect, though, that actuaries will dominate the new head of actuarial function roles which will emerge. Any other outcome would be bizarre.

The big Solvency II prize, for us as a profession, is the potential leadership of the new risk management functions. There are encouraging signs that actuaries already are being seen as the lead candidates for Chief Risk Officer roles.

Risk management

It is clear that risk management is the "new frontier" across the entire global financial services landscape. This has been identified as a huge opportunity for the actuarial profession worldwide and has led to the launch of the Chartered Enterprise Risk Actuary qualification, backed up by the Institute and Faculty of Actuaries ST9 exmination. In Ireland, we will continue the good work which is being done by our Enterprise Risk Management Committee. We will continue to seek to associate risk management best practice with actuaries in the minds of key stakeholders.

The Society

– The quality agenda

Our reputation as a group of professionals is our most valuable collective asset. We all benefit from it and we all contribute to it.

To support this, we have developed a solid and sophisticated framework of expectations and standards in relation to our professional behaviour and the quality of our work.

But the world for which this regime was designed has changed. As far as Solvency II is concerned, it is now likely that our role in setting technical standards is drawing to an end. The same may be true for different reasons in the pensions area. These are not developments we should resist. The status quo doesn't meet the thresholds of transparency and objectivity which are increasingly demanded of all professions.

However, important new questions that will arise for us over the next couple of years on this quality agenda are:

1. Should we maintain a practising certificate regime for actuaries performing new roles under Solvency II? A working party is due to make recommendations on this topic before the end of this year. Their emerging view, which I support, is that mandatory practising certificates will have a role in protecting the integrity of actuarial work and the reputation of the profession under Solvency II.

Address....*continued*

2. How should compliance be monitored? Today we only have mandatory external compliance monitoring in place in the pensions area. I believe the time is right to revisit this topic across all our fields of activity - pensions, life and general insurance and reinsurance

I know some might contend that our Disciplinary Scheme is sufficient as a "big stick" to maintain standards. But, it is an extreme ex-post mechanism which only comes into play long after damage has been done. It is an expensive and unwieldy big stick - as other professions in Ireland have found to their cost in recent times. Prevention is better than the cure!

– Governance

The Society has endeavoured over the years to maintain a consensus approach. This is laudable, and great if it can be achieved. However, in the modern era the downside is, that it makes us less nimble and less able to respond to fast-moving events.

It is timely to review our decision making structures to ensure they are fit for the needs of the Society in 2012 and beyond.

In a similar vein, has the time come and has the Society reached sufficient critical mass to consider reducing the President's term to one year? And if so, how would this work?

– International

The Society has boxed above its weight on the international stage for years. This is largely due to the interest and dedication of a small band of warriors, who have worn the green jersey with distinction in the International Actuarial Association and the Groupe Consultatif.

Maintaining this strong presence on the international stage has long since moved beyond being a nice thing to do and it is now critical that a clear voice continues to be heard from Ireland internationally.

– Member engagement

We need to be seen to be relevant to the real-world everyday issues our members face in their working lives and to the major problems facing the country. We are fortunate that there is a strong tradition and culture of volunteerism across our membership. This is a good point for me to acknowledge the hard work and commitment of the many members who contribute to our committees, working parties and other groupings.

In conclusion

I believe that it is exciting to be an actuary in Ireland in 2011. Our skills and way of looking at the world are now truly mainstream. Managing risk is at the core of national and corporate decision making. We do pass the relevance test!

For sure there are threats and unknowns and for sure the world is changing rapidly, but, I honestly believe, the potential on the upside significantly outweighs the obvious risks.

But the world owes us nothing. The conditions for continued relevance are:

- Always - and that's a non-negotiable always - living up to the spirit and the letter of our professional principles - acting with integrity, performing work to the highest standards of competence and care, being impartial, being compliant and communicating openly and honestly. This is a duty we owe to ourselves, to each other and most importantly to the individuals and institutions we serve;
- Being willing to take up new challenges and opportunities;
- Adapting our skills to a changing world through a commitment to career-long learning and personal development; and
- Not being over-confident about our ability to make financial sense of the future. As Kevin Murphy said two years ago, "humility should be the number one attribute for forecasters of the future".

It is a great honour to be the President of the Society of Actuaries in Ireland and I thank you, my peers, for conferring it on me. In return, you can be assured that I will do the best job I can over the next couple of years on your behalf to maintain the profession's relevance. I know that I can count on your support.

Copies of all papers and slides, as well as podcasts of all presentations, are available on the Society's website.

The Latest on United States Mortality,

On the 15th September 2011, Al Klein of Milliman gave a presentation on the latest mortality and lapse experience for protection business and on the general underwriting environment in the US. The experience analysis was based on MIMSA (Milliman Industry Mortality Study and Analysis) – an experience study in which 29 companies from the US insurance industry participated. The primary focus of this study was on standard US term insurance business.

The study covered the period from 2000 to 2009 and had $27 trillion of exposure in terms of sum assured, 1.6 million deaths and 8.1 million lapses. The mortality experience for standard lives was 87% of the SOA 2008 VBT tables by amount and 97% by count. The lapse experience was 5.5% on an amounts basis and 4.5% on a count basis.

The mortality experience showed some variation when analysed by duration, in particular there was a spike in experience at duration 3. In the US, companies are able to contest claims that occur within the first two years of a policy. This is known as the contestability period. Beyond that point, insurance companies cannot contest death claims. A spike in the A/E ratio is evident at duration 3 due to the end of the contestability period. Gareth Colgan asked why the underlying mortality table did not reflect this contestability feature. Al responded that when the SOA 2008 VBT table was created the contestability feature was graduated out of the table.

The study found that the range of individual mortality A/E ratios was surprisingly large with the best companies having a ratio of 60% and the worst having a ratio of 150%. Various explanations were put forward for this variation. One was that different companies have different target markets and distributions. The variance did not appear to be due to large versus small insurance companies.

Older mortality rates were close to those of the 2008 VBT between ages 90 and 100.

There was a large increase in mortality at the end of the level term period. In the US, policyholder's have the option to continue their policy on yearly renewable rates without any additional underwriting at the end of the level term period. The increase in premiums at the end of the level term can be significant – premiums can increase by factors of 500% and more. One would expect considerable anti selection at this point, with only unhealthy lives maintaining their policies inforce. Al pointed to a recent research paper which showed that the rate of lapsation was correlated to the increase in the premium at the end of the level term period. In turn, the rate of mortality deterioration was correlated with the premium jump. The Dukes McDonald method was suggested as one way of modeling this feature.

A mortality improvement analysis of the experience investigation showed inconclusive results with neither a clear improvement nor deterioration trend evident from the data.

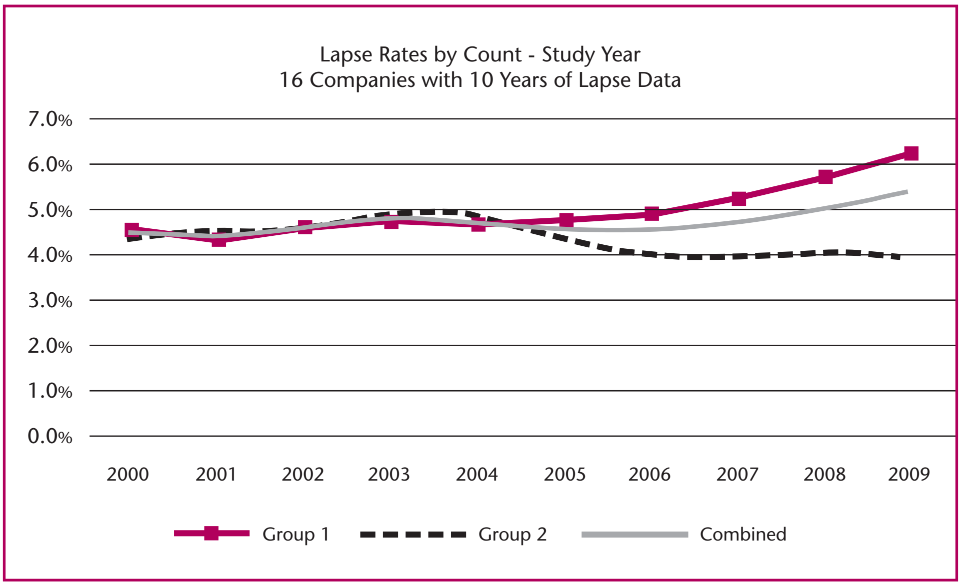
Lapses

The study focused on lapses on a count basis.

Group 1 represents companies with high levels of sales

Group 2 represents companies with lower levels of sales.

- Overall lapse rates by gender were close – there was a variance in lapse rates by age band.
- Lapse rates generally decreased with increasing policy sizes. Dermot Corry noted that this was not the case in Ireland where lapses could be higher for larger policies and this was typically caused by broker behaviour. Al commented that the reason for lower lapses in the US was because larger policies can take 3-6 months to get through the underwriting stage. Underwriting in the US is quite comprehensive and occurs at the policy issue stage. Once a policy-holder has gone through this long underwriting process, they are unlikely to lapse their policy.
- The study showed lapse rates began to rise overall in 2006 but not for all companies. The study showed that companies with high volumes of new business tended to have higher lapse rates.
- Richard O'Sullivan asked if there was evidence of lapses being correlated with the state of the economy. Al responded that no significant uptick in lapses was evident during the economic downturn of 2008. There was some increase but the increase was far lower than had been anticipated.



Lapse and Underwriting

Underwriting

Al gave an overview of the environment in the US. He then discussed the following underwriting tools:

- Application Questions: Medical, Financial and Lifestyle
- MIB (Medical Information Bureau) – This was formed 100 years ago to protect against fraud – this database shows information policyholders have given when applying for insurance.
- Motor Vehicle Record (MVR) – Details of driving history – lots of speeding tickets can be indicative of a dangerous lifestyle etc.
- Tele Underwriting – Verification of application questions, can incorporate cognitive testing for older ages.
- Prescription Database – Started in 2006 – Shows details of prescription drugs being taken.
- Blood Tests/Oral Swabs.
- Genetic Tools – A question in the industry is whether there is a role for genetic testing in underwriting. Genetic testing is not permitted for health insurance in the US but there are no explicit rules around life insurance. Al Klein's view was that if the customer can do genetic testing then the insurer should also be allowed to do so in order to prevent anti-selection.
- New Medical Markers – Blood test to measure telomere, which is linked to life expectancy, markers in blood/spinal fluid to predict Alzheimer's etc.
- Life-Style Based Analytics – Evaluate consumer data to evaluate application – policyholder who subscribes to multiple health magazines versus someone who just bought a new television and drives 40 miles to work etc…. Currently can only use positive information.
- Older Ages –
  Functional testing: grip tests to determine strength, frail to fully functional.
  Cognitive testing – mental function shows correlation with mortality experience
- Supplemental Questionnaire – physical activities, living arrangements can be indicative of mortality experience.

The Society's President, Paul O'Faherty thanked Al for his excellent presentation and called the meeting to a close.

Eoin Harte

Events of particular interest to recent qualifiers and senior students

The Recent Qualifiers Committee has organised a series of lunchtime meetings on Regulation. This is a must-attend for students and newly/recently qualified members. This series of talks provides the basics of the regulatory landscape defining each area of the actuarial profession in Ireland.

By choosing which presentation applies to or interests you, our expert speakers will help bridge the gap between exam material and practical application.

Mon 12 Dec — **Regulations in General Insurance**. *Everything you wanted to know…….but were afraid to ask!*

Tues 13 Dec. — **Regulations in Life Assurance**. *Everything you wanted to know…….but were afraid to ask!*

Wed 14 Dec. — **Regulations in Pensions**. *Everything you wanted to know…….but were afraid to ask!*

There is no charge for these meetings. Full details and online reservation facility are available on our website at: **www.actuaries.ie/events <http://www.actuaries.ie/events>**

SAI Christmas Drinks & Table Quiz – Monday 5th December

A great night is planned for Monday 5th December for all members of the Society. The President, Paul O'Faherty, will host Christmas drinks from 6pm – 7pm in the Davenport Hotel. The annual Table Quiz will commence at 7pm sharp with all proceeds going to the charity chosen by the winning team. Book your team of 4 now on the Society's website. If you don't have a team of 4, individual bookings are most welcome and the Society will arrange a team for you.

Valuing Tax Losses

On 28th September John Caslin, director of Alder Capital Ltd, and George McCutcheon, director of Financial Risk Solutions Ltd, gave a presentation based on a paper "Placing Value on Tax Losses in the Unit Pricing of Life Company Internal Funds". The motivation for the paper came from the current lack of market consensus in placing a value on tax losses and the paper looks to propose a theoretically sound and practical approach.

John began by explaining the current approaches used in Ireland and the UK which, for the purpose of the presentation, were referred to as the Fund Value Method (FV) and the Zero Value Method (ZV) respectively. He explained that both approaches are unfair in certain circumstances as they either overstate the value of tax losses to the detriment of continuing unit-holders (FV) or they understate the value of tax losses to the detriment of exiting unit-holders (ZV). He then explained that their recommendation was a change to a method referred to as the Transaction Value Method. While the paper considers expanding and contracting funds in both the UK and Ireland the focus of the presentation was on contracting I-E funds in the Irish market.

He then went on to discuss why a value should be placed on tax losses and what value that should be. He pointed out that when no value is placed on tax losses continuing unit holders can benefit from tax losses of exiting unit holders. Continuing unit holders could be expected to pay a consideration for this benefit. However continuing unit holders have to provide the capital to generate investment return and only benefit if the fund generates sufficient taxable gains in the future.

John also discussed the issue of fair treatment of unit holders from a number of perspectives:

- All unit holders (entering, exiting and continuing) expect to be treated fairly,
- From a regulatory perspective there is a requirement to treat unit holders fairly in transactions with the fund,
- Life companies do not want to expose themselves to operational or reputational risk arising from the unfair treatment of policyholders,
- An industry-wide consensus approach would be desirable for all parties.

When discussing what value to place on tax losses John made the point that the main purpose of unit pricing was to determine a fair price for transactions between incoming/exiting and continuing policyholders. He then took us through some worked examples which demonstrated the principles of the Transaction Value Method and also the Fund Value Method. These examples were useful in proving that, using the same economic assumptions, the two methods can result in very different results. Given the main purpose of unit pricing, this showed a need for a method with a transaction pricing focus.

George then took over and spoke about how to place a value on tax losses for unit pricing transactions. Given the range of possible methods it was necessary to have an objective test to assess the result of any method:

- Firstly, look at the results for various deterministic scenarios,
- Secondly, if the deterministic results are satisfactory, look at the results assuming an investment return distribution,
- Finally, conduct sensitivity analysis e.g. on withdrawal rates.

A principle to be followed in applying the objective test is that unit prices applied to earlier exits should not affect unit prices for later exits. A set of "base case" unit prices are determined assuming all unit holders exit at the same time and no value is placed on tax losses in unit pricing. The unit prices of any method should be compared with the base case unit prices. The objective test quantifies the extent to which the method used to place a value on tax losses has affected subsequent unit prices – the optimum result being no effect.

George then spoke in more detail on the Fund Value and Transaction Value Methods. The Fund Value Method treats tax losses as a contingent tax asset. The philosophy of this method is that all policyholders share equally in the value to the fund of reduced tax charges. The philosophy of the Transaction Value Method is that there are two groups of unit holders: continuing and exiting. The method seeks to give all value arising from leavers' share of tax losses to leavers, provided that can be done without disadvantaging the continuing unit holders.

He then considered how the Transaction Value Method performed against the objective test. A graph of the ratio of unit prices to base case unit prices demonstrated that on low and high investment return assumptions the Transaction Value Method gives very fair results. At more intermediate investment return rates the picture is not so clear. However, when compared with the Fund Value Method the Transaction Value Method gives a fairer result. In contrast, the Fund Value Method gave unfair results for low investment return assumptions.

George concluded by observing that both the Fund Value Method and the Zero Value Method failed the objective tests of fairness expected by unit holders and regulators. In addition he stated that the Transaction Value Method is theoretically sound, demonstrably fair and practical.

George also gave a demonstration of an App available on his website www.frsltd.com which shows results for the Transaction Value Method. Life companies could also use this to see the approximate investment return rates required to validate the current value placed on tax losses for a particular fund for its tax loss percentage.

The authors recommended the Transaction Value Method based on:

- the inherent logic of Transaction Pricing
- the prior analysis which shows that it meets the objective tests of fairness

Furthermore, the authors recommended that the Life Committee consider the issues raised in the paper.

Once the presentation was completed those present were given the opportunity to ask questions. A number of those present asked questions and complemented the authors on the quality of both the paper and the presentation. Paul O'Faherty closed the meeting by echoing those sentiments.

Alan Canny

SAI Golf Newsletter

Summer Scramble

A spell of fine weather leading up to the first event of the year brought in many entries and there were 9 teams of three entered for the summer scramble at Clontarf Golf Club in late June. Unfortunately the spell of fine weather did not continue through until the day of competition! The most persistent heavy rain that I've ever played in fell from start to finish and the holes, bunkers and greens filled with water and the course was almost completely flooded. A normal singles golf competition would certainly have been called off – but the scramble format meant everyone stuck at it and completed their rounds.

Despite the appalling conditions the scoring remained remarkably good with Andrew Clusker, Michael Sharpe and Ciaran Belton taking first place with a fine net 58.5 (gross 66). Second place went to Jerry Murphy, Mike Green and myself with a net 59.375 (gross 64) and in third place were Piers Segrave-Daly, Brendan Lynch and Tom Collins with a net 64.125 (gross 70).

Captain's Day

On 18th August, St Margaret's Golf Club hosted the Society's Captain's Prize. Whilst not a blazing hot day the weather for the Captain's Day remained fine and was certainly a marked improvement on the scramble in June.

The finest golf over the first 17 holes was undoubtedly played by Kevin Begley and standing on the 18th tee with 38 points already on the card he was on course for a great score. Trouble is never far away on the difficult closing hole at St Margaret's - a long par four with large bunkers, a lake and three tiered green. Perhaps it was the pressure of the SAI Captain's Prize at stake, perhaps it was the pep talk from playing partner Brian Connaughton, but Kevin found trouble at the last and was unable to add further to his stableford points tally of 38 and a nervous wait ensued to see how the remaining players would finish.

Once all the scores were in, 38 points was more than sufficient for Kevin to secure first place, two points ahead of second placed Tom Collins, who was two points ahead of a group of four on 34 points. It required a review of the final 9 and then final 6 hole scores to determine that Gareth Colgan took 3rd place. Further prizes were presented to Tom Barry for the longest drive at the 9th, Peter Doyle for closest to the pin at the 15th and Brian O'Malley for a best back nine of 20 points.

Faculty Match

The final outing on the golfing calendar was the annual match against the Faculty, played this year on their home turf at Luffness New Golf Club on the East Lothian coastline. The 'New' in the name was slightly ironic since the course was founded in 1894!

The Society has won or retained the Tom Ross Quaich every year since the annual match started back in 2003 and a team of 8 golfers travelled to Edinburgh with the hope of retaining the cup again. Unfortunately all good things must come to an end and a strong Scots team won by 2.5 – 1.5 to take the title. We don't intend to let them hang on to the cup for long and will be hoping to return it to Irish soil next year.

Finally, I must say I enjoyed my year as Captain of the Golf Society and my thanks to all those who participated in making the golf year successful. I would like to thank Mary and Catherine in the office for keeping everything running smoothly and give my best wishes to next year's Captain, Brian Connaughton who provides a review of this year's Matchplay competition below.

Steven Hardy

Piers Segrave Daly Matchplay Competition

The Piers Segrave-Daly Matchplay trophy has once again proven to be a very popular competition, with 27 entrants battling it out since the beginning of May. As usual, this popular annual event was a great opportunity to meet fellow actuaries, play some new courses and get in a few sneaky games of golf along the way.

If, like me, you enjoy a round of golf, but lack good course management skills you may find the matchplay format ideal. The odd stray shot is merely a lost hole, not an unforgiving blot on the card, since each hole is an individual battle where you try to match your opponent shot for shot.

Like every round of golf, these matches will typically lead to numerous stories of previous battles in the campaign for "gold". You may have heard of the infamous 13th hole in Druid's Glen being halved even though neither player got within 100 yards of the green. Or was it the vivid story of a shot ingeniously bent around a cluster of trees and over water to within inches of the pin at Killeen? Another epic tale was of a 3-hole deficit after nine being converted into a victory on the 17th.

I had the honour of winning this year, having fallen at the final hurdle to Bryan O'Connor last year. There were some great matches along the way, starting off first by sneaking past Ciaran Belton in the 1st round before being granted a bye from David Kingston in the 2nd. Hopefully, we'll get to have our battle next year. Next up was Thomas Farrell at his course in Carton House. Before playing, I was a little worried upon learning that Thomas had won the members' competition there the previous day. But, somehow, I managed to stay out of those cruel fairway bunkers designed by the great Colin Montgomerie to claim a close win. Semi-final time was against our captain Steven Hardy at Portmarnock Links starting at 7am in the windiest conditions that I've ever played in. At times it was more like playing crazy golf, with the wind having more control over our shots than we did. Ultimately the match went down to the wire,where again I was grateful to scrape the win.

All was then set up for the final against Orla Walsh, who had come through some difficult matches, including a great comeback victory in the semi-finals. After we got the complex handicap system out of the way we teed off in Elm Park. With both of us playing some very good golf (I don't believe a hole was won with worse than a par), I found myself four up with five to play. That's when Orla's tenacious comeback ability came to the fore. Orla won holes 14 and 15, and then chipped in on the 16th forcing me to hold a long putt to halve the hole to go dormie-two. Another great drive and chip from Orla put me under pressure on the 17th where this time I was forced to hole an even longer putt to avoid the match going down the 18th. After last year's defeat it was a great feeling to win this years competition.

The Piers Segrave-Daly Competition is a fantastic part of the Society's annual golf diary since 1996, and is a credit to Piers' vision (himself a winner of his own trophy in 2001) that it is such a popular competition each year. It is testament to the challenge that only one person has won the trophy on more than one occasion; Maurice Whyms winning in both 1999 and 2000. The role of honour can be seen in the golf section of the Society's website. I would encourage all golfers, male and female, to give it a go in 2012.

Brian Connaughton

.....photographs on page 9

Mortality Trends in Ireland

If you use UK mortality tables and mortality improvement projections when valuing liabilities in respect of Irish individuals, this presentation may have given you food for thought.

On 2nd October 2011, the Society's President, Paul O'Faherty welcomed all guests to the presentation and thanked them for not going to the Aviva stadium that night instead. Paul introduced Mary Hall, FSAI, who delivered a presentation on Irish specific mortality trends in the 20th century. These trends would be split by cause-of-death, and all-causes. The presentation also covered the relative mortality risk in Ireland in comparison with England, Wales and Northern Ireland over the 20th century. The presentation concluded with an analysis of mortality improvement projection methods for the 21st Century.

Irish Mortality – death rates

Firstly, Mary spoke of her investigation into Irish specific death rates in the 20th century. This investigation was based on Irish census data from 1901 to 2006. The calculated death rates (# deaths/ # population) are standardised to the European Standard Population, which allows comparison across different time periods and geographical locations. An analysis of all-cause death rates revealed a significant decline in standardised death rates over the investigated period (1901 to 2006), with males experiencing a 69% fall and a corresponding 77% fall for females. Also, an analysis of all-cause death rates by broad age-group revealed a large drop in death rates for people aged less than 65 over the investigated period. For example, in 1901, 40% of male deaths were in respect of people aged less than 35, but by 2006 this figure had reduced to 28%. Perhaps surprisingly, the fall in death rates for those over age 65 only started occuring from the 1990s onwards.

Irish all-cause risk relative to the UK

Mary then moved attention away from absolute Irish mortality rates to Irish mortality rates relative to the UK. A comparison of all-cause mortality risk relative to Northern Ireland, England and Wales revealed :

- Irish male relative mortality experience was good over most of the 20th century, but deteriorated towards the end of the 20th century.
- Irish female relative mortality experience was poor over most of the 20th century, but improved towards the end of the 20th century.
- Ireland experienced significant improvements in relative mortality in the early years of the 21st century for both males and females.

The relative numbers presented showed a marked volatitity between the all-cause mortality experience of Irish males and females compared to their UK counterparts. Also, if one uses UK mortality improvement projections for an Irish population, the significant difference in relative mortality improvements between Ireland and the UK since the start of the 21st century is being ignored.

Irish cause-of-death risk

The 5 major causes of death were analysed, namely : infectious diseases, circulatory diseases, respiratory diseases, external causes and cancer. The cause of death was classified using the W.H.O. (classification of diseases) codes. As Ireland did not use these codes prior to 1926, the investigation period analysed was 1926 to 2006. The emerging trend from the investigation was that circulatory diseases were the major cause of death throughout the 20th century. However, at the start of the 21st century, due to a decrease in circulatory diseases and an increase in cancer rates, cancer is now the major cause of death. Also, there was a significant decline in the prevalance of infectious diseases post 1951. This was a reflection of the government's initiative at the time to eradicate TB. The 3 most common causes of death at the start of the 21st century were circulatory diseases, respiratory diseases and cancer. An analysis of cause-of-death by broad age groups revealed the following:

- A dramatic drop in deaths for ages 0-34 due to infectious diseases.
- External causes are now the primary cause of death for ages 1-14.
- Cancer was the primary cause of death for ages 35-64 by 2006.
- For ages over 65, deaths due to "ill-defined" causes distorted trends in the first half of the 20th century. However, circulatory disease was the primary cause of death for this age group by 2006.

Mary then analysed the relative cause-of-death mortality risk for Ireland compared to England, Wales and Northern Ireland. The Irish data over the last century had an excess of "ill-defined" classed members due to poor data recording. This makes the relative analysis more complex and the results are, perhaps, estimates at best.

Irish mortality at the start of the 21st century

Mary drew a number of conclusions from the analyses described above. Firstly, the Irish mortality improvements at the start of the 21st century are mainly due to the decrease in deaths from circulatory diseases. This is most likely due to the increased availability of new drugs and pensioners getting access to medical cards. Therefore, the drop in deaths from circulatory diseases can partly be attributed to government policy. Mary suggested that government policy is likely to have a significant impact on future mortality improvements. For example, in 2006 there was a 20% difference in mortality rates from respiratory deaths between those in the high/low socio-economic groups. Therefore, if the government could reduce the socio-economic effect on mortality, then major mortality improvements could still emerge in the absence of medical progression.

Mortality Projections

The presentation then moved away from the analysis of historical mortality rates to the issue of projecting future mortality. Mary noted that the CMI have published a library of mortality projections and suggested that the Society should also issue a library of projections which could be applied to any base mortality table. The choice of cohort projection methods made available by the CMI indicates the level of uncertainty surrounding future mortality projections.

Mary then gave a background on her research of Generalised Additive Models (GAMs) for projecting future mortality. GAMs with age, period and cohort as possible covariates are used to predict future mortality improvements for the Irish population. The 4 GAMs considered are the 1-dimensional age+period, age+cohort models, and

in the 20th Century

the 2-dimensional age-period and age-cohort models. In each case, thin plate regression splines are used as the smoothing functions. The mathematics involved drew gasps from the crowd. The end result is that the GAMs are compared with the P-Spline and Lee-Carter models included in the CMI library of mortality projections. The GAMs outperform the P-Spline and Lee-Carter models over intervals of 25 and 35 years in the age-range 60 to 90. Mary suggested further research needs to be done using different data-sets before being decisive about using GAMs for projecting future mortality.

Mary concluded by summarising the advantages and disadvantages of using GAMs. She feels that there is a lot of scope for further research on Irish mortality projections, looking separately at mortality projection by cause and the impact of socio-economic status on mortality projections. She also feels that it is no longer justifable to use UK tables with an adjustment to represent Irish mortality. Has the time come for Irish specific tables to be researched and published?

Discussion

A number of interesting comments arose after the presentation in relation to the modelling of future mortality, mainly around the area of using past data to model future mortality improvement. After thanking Mary and Paul, the satisfied crowd dispersed.

Tom Leahy

SAI Golf

Steven Hardy presenting Kevin Begley with the Captain's Day Trophy

Society vs Faculty Golf Match

Non-Life Insurance Technical

On Wednesday 26th October 2011, Dermot Marron and Ronan Mulligan delivered a presentation on the prediction errors for common non-life reserving techniques to the Society.

Due to the requirements of Solvency II, assessing the variability of reserves will become an increasingly important requirement of reserving actuaries. Traditionally, non-life insurance reserve risk has focused on the uncertainty until the full run-off of liabilities - the so-called 'ultimo' risk. However, Solvency II requires an estimate of the distribution of the profit or loss on reserves over the following year which necessitates the use of new approaches.

The Ultimo View of Reserving Risk

Ronan gave an overview of the different methods that are available to estimate the prediction error of non-life technical provisions as outlined below:

The Mack method is an analytic approach that uses recursive formulae to estimate the expected value and standard deviation of reserves based on a loss triangle. Although relatively straightforward to implement, this method does have a number of drawbacks:

- it does not give any insight into the form of the entire distribution;
- it requires a complete triangle;
- it requires adjustments to calculate the prediction error of any tail reserves.

Bootstrapping is a stochastic technique that derives an estimate of the full distribution of possible claim outcomes. This distribution can provide quantitative information about reserve strength, for example, "there is a 25% chance that the selected reserve will prove to be too low". Ronan gave a brief summary of the two main bootstrapping models in use today, i.e. the Over-dispersed Poisson bootstrap and the Mack bootstrap and also some of the diagnostic checks that should be performed to validate the results.

When performing a bootstrap analysis, the modeller will be faced with a number of issues/choices which can have a significant impact on the resulting estimate of reserve variability:

- what scale/dispersion factor to use – fixed or variable by development period?
- bias-adjustment factor – hat matrix or degrees of freedom?
- set mean of residuals to zero?
- residuals that are not independent identically distributed.
- missing values – ignore or impute?
- outliers – feature of data or one-off-data point to be ignored?
- adjusting for zero residuals.
- scaling bootstrap results to reserving best estimate – additive and/or multiplicative scaling?
- how to incorporate Bornhuetter-Ferguson or Cape Cod reserving methods?

Although the application of bootstrap techniques to claims reserving is not straightforward, it does offer a number of advantages in the post-Solvency II world:

- it provides consistency between payment patterns and reserves in each simulation;
- the process can be 'industrialised' which will aid in meeting the reporting deadlines;
- it is an essential precursor to some of the methods used to analyse the one-year view of risk.

The One-year View of Reserving Risk

Dermot introduced us to the concept of the one-year view of reserving risk as required under Solvency II. Under this approach, we are interested in how much the reserves can be expected to move in one year after allowing for claims paid during that year, i.e. the volatility of the Claims Development Result (CDR):

$CDR_{t+1} = (R_t - X_{t+1}) - R_{t+1}$ *where*
$R_t =$ reserves at time t
$X_{t+1} =$ claims paid from time t to t+1

If the reserves are best estimate, then the expected value of the CDR is zero.

There are three main reasons why the CDR is unlikely to be zero in practice:

1. year-end claims are different from expected;
2. extra claims experience may result in a different selection of development factors;
3. actuaries will take into account information not contained in the data.

When considering how the one-year reserve risk compares to the ultimate risk it is important to keep in mind that the shorter the duration of the liabilities, the more variability in the reserve run-off that will be observed in the following year.

A number of different approaches are available to estimate the variability of the CDR as outlined below:

The Merz-Wüthrich method uses analytic formulae on a triangle of claims data to derive an unbiased estimate of the standard deviation of the CDR.
This approach was one of the options available in QIS5 when calculating Undertaking Specific Parameters for reserve risk. Although this method is gaining in popularity, it has a number of limitations:

- a work-around is required for tail factors;
- as it does not produce a distribution of the CDR, the modeller must assume a distribution in order to calculate other risk measures, e.g. VaR at 99.5%.

The 'Actuary-in-a-Box' method comes in many variations but the most common approach is an extension of the bootstrapping process whereby the claims triangle is augmented by one extra diagonal of simulated claims. For each simulation, the 'actuary-in-a-box' re-reserves using a pre-programmed reserving methodology to derive the outstanding liabilities at the end of the next period. This then allows a CDR to be calculated for each simulation. In this way, many thousands of possible CDR's can be simulated, allowing an estimate of the entire CDR distribution to be constructed.

Dermot also briefly mentioned the **Time-Scaling method** of obtaining a one-year view of reserving risk.
This approach involves deriving a capital signature for the reserve run-off, then calculating the resulting duration for the capital run-off. This can then be used to estimate the one-year reserve risk.

Provisions Prediction Errors

signature for the reserve run-off, then calculating the resulting duration for the capital run-off. This can then be used to estimate the one-year reserve risk.

Summary

There are many different methods available to the actuary to estimate both the ultimate view and one-year view of reserve risk. The choice of method to use will come down to the actuary's own expert judgement and knowledge of the business that is being reserved. In practice, there are other factors that will have as much of an impact on the reserve risk estimate as the choice of methodology to use such as, in particular, the segmentation of lines of business and the methods chosen to aggregate results across lines of business and across territories.

Dónal Hyde

Chartered Enterprise Risk Actuary (CERA)

Congratulations to members who have achieved the CERA qualification. From the Institute & Faculty's website, we have ascertained that the following SAI members are now Chartered Enterprise Risk Actuaries; Graham Crowley, Liam Dempsey, Niall Dooner, Bryan Madden, Majella McDonnell and Eamon Mernagh. If any other members have obtained this qualification, please let the Society know.

Eamonn Mernagh tells us why he decided to sit the ST9 exam in Enterprise Risk Management:

Upon qualifying in 2008, I promised myself I would never do another exam again. However, only two years later, I decided to backtrack on my promise and sit the ST9 exam in Enterprise Risk Management. This exam can be taken by current students as part of their qualification process or can be taken by qualified actuaries with an interest in this area. I decided to put myself through the rigours of another exam primarily for the following reasons:

- CERA Qualification – Upon completing (and passing) the ST9 exam, you receive the CERA (Chartered Enterprise Risk Actuary) qualification. This is a global risk management qualification which the UK Actuarial Profession is accredited to award. Risk Management is increasingly growing in importance as a result of prospective Solvency II requirements and ongoing events in the global financial sector. In particular, under Solvency II, there is an increased focus on the importance of the risk function within an organisation. I felt that the CERA qualification would be a major advantage to me should I choose to pursue such a role in future.
- The area of risk management is something that I thought would be interesting, particularly as it is an area which is still evolving. In the months leading up to the exam, I found that, because this was an area I was interested in and because I volunteered to do ST9 myself, I was more motivated to study for it than I might have been for exams in the past.
- Personal Reasons – For the above professional reasons, I felt that the CERA qualification was something I would like to attain. However, the actuarial exams were still fresh enough in my memory for me to remember how much study and time is involved to pass. As my girlfriend was also studying for the actuarial exams and as the short evenings/rain were likely to curtail the amount of time I could play golf over the winter, I decided to sit the exam in April of this year. It turned out to be a wise decision as the snow and ice of last winter were not conducive to getting out on the course – true risk management in action!

For those who are qualified, have an interest in risk management and are considering going back to sit ST9, I would recommend you to do so although it is worth considering the time required to study. The material is interesting and is only going to become more relevant to an ever expanding array of roles, across many fields in business. Topics covered vary between corporate governance, risk identification & controls, risk models including copulas and risk management & planning.

Information can be found on the UK Actuarial Profession's website, *www.actuaries.org.uk*. CERA have their own website which also has some useful information. The SAI are planning a CERA lunchtime meeting in January/February 2012 so keep an eye out on the events section of the website if you think that this is something that might interest you.

Finally, I just want to wish everyone who decides to sit the ST9 exam the best of luck. All the signs would suggest that the work required to pass this exam could be a real case of short term pain for long term gain and maybe when you finish study this time, you'll actually take up some of those hobbies you claimed you would while studying for your Fellowship!

Eamonn Mernagh

Graham Crowley, who is also a Chartered Enterprise Risk Actuary, will present an overview of the exam at a lunchtime meeting in January/February 2012.

Details will be posted to the Society's Calendar of Events shortly.

SAI Practice

The Practice Committees have briefly outlined below their main areas of focus at present.

The minutes of each of the Practice Committee meetings are readily available on the Society's website and provide further details of discussions and actions arising.

Please note that the following is merely a brief summary of the activities of the committees:

Enterprise Risk Management

- The committee held an ERM forum on 20th October with talks on the euro crisis, risk governance and operational risk.
- The committee is planning an ERM Seminar for early 2012. It is intended that this event will be a half-day seminar aimed at a wide audience.
- The committee is investigating the possibility of developing a risk management course and has issued a survey to the membership to help in determining what would be of most use and interest to members.
- The committee was restructured into 4 subgroups:
  - Research
  - CPD
  - Solvency II
  - Marketing/Promotion/Liaison

Finance and Investment

- On November 9th a meeting titled "Risk Management - Insurers versus Banks" was presented by John O'Brien (Mercer), David O'Connor (Towers Watson) and Brian O'Kelly (DCU).
- On 21st November a meeting titled "The Debt Crisis in Europe, plus a preview of the SAI's new Financial, Economic and Investment Dataset" was presented by Colm Fitzgerald. This data is available to members on the Society's website.
- Other evening meetings in the pipeline include a session on Property Investment and Investment Strategies.
- A draft version of the 2012 Financial and Economic Assumptions has been prepared. These will be finalised shortly.

Healthcare

- The main activity of the healthcare committee over the past number of months has been to prepare for a seminar that will take place in February "Controlling the Cost of Claims". This will be a half day seminar featuring Irish and international speakers from the insurance and health care sectors. The committee is targeting a diverse audience from the Society's membership and from outside the Society's membership.
- The committee identified the TILDA report as an area of significant interest for members from a range of backgrounds, including healthcare, pensions and demography.
  The committee is delighted that Alan Barrett agreed to speak at an evening meeting on 16th November and we will be exploring opportunities for further research arising from the TILDA report.
- A main priority for the committee is that the Society is seen as a key source of independent expert opinion on Universal Health Insurance. The committee is currently working on a briefing paper as a starting point to establishing this reputation with policymakers.

Life

- Proposed changes to ASP's LA-1, LA-2, LA-3, LA-8, LA-11, PRSA-2 and PEN-12 are currently issued for member consultation with proposed effective dates of 30th December 2011. Proposed amendments relate to:
  - ASP LA-1: consideration of concentration risk when determining the appropriateness of assets.
  - ASP LA-2: changes incorporated following a review of version 2.2 in the light of Solvency II.
  - ASP LA-3 and ASP LA-11: the consideration of alternative approaches, such as market based measures, in all cases (including sovereign bonds) when calculating the provision for the possibility of default.
  - ASP's LA-8, PRSA-2 and PEN-12: the treatment of the four year pension levy, the Gender Directive ruling and the treatment of non-standard asset classes.
- The Life Forum will take place on Wednesday afternoon 7th Dec. Details are available on the Society's website.

General Insurance

(a) Working Party on Communicating Uncertainty

The Central Bank of Ireland has requested actuaries to address reserve uncertainty in their year end actuarial reports and has requested senior management and boards to consider reserve adequacy and uncertainty throughout 2011.

This was discussed at a break-out session at the Annual Forum in May, with the CBI in attendance. There was much discussion on the merits of different calculation methods, and whether we needed to produce a GIP for this topic.

In the end, it was agreed that we would form a small working party. The working party produced a paper on reserve uncertainty and reported on the topic at the Society's General Insurance Forum on 25th November.

This paper was completed with input from Derek Bain (AXA), Julia Moore (CBI), Ger Bradley and Kathy Sheahan (RSA). It is hoped that the paper will also be of use to senior management and boards in suggesting useful language for communicating and discussing uncertainty.

(b) Solvency II

A new area in Solvency II for GI actuaries is opining on pricing and reinsurance. The Society will need to consider how best our members can do this. The GI committee will review the pre-consultation documents in these areas in detail.

(c) Implications of the Gender Directive

The committee is considering the implications of the ban on gender-specific pricing, which in GI affects mainly Motor Insurance. How pricing actuaries will approach this will be a major consideration over the next 18 months.

It seems clear that direct proxies (if they exist) will not be allowed, but what about combinations of rating factors. And although motor is the main class impacted, if we need to show compliance, we may need to demonstrate compliance across many business classes.

(d) General Insurance Practice Notes

We intend to review the wording of the MIBI General Insurance Practice Note to aid consistent application.

Committee Updates

(e) General Insurance Forum 25th November

We had 3 talks at the forum on the 25th. These were

- Communicating Uncertainty (Uncertainty working group – GB, DB, JM and KS referenced earlier)
- Actuarial modelling of Total Balance Sheet uncertainty – Patrick Grealy
- Moving over to the Risk side – Andrew Clarke - KPMG

Pensions

Members of the Pensions Committee continue to meet to discuss current pension issues. The main recent items for discussion have been:

Consultation Paper on Defined Benefit Pension Provision

The Consultation Paper was discussed with members at the Convention in May. Subsequent to the Convention, the Society responded to the Paper outlining its preferred approach and its view that the review of the defined benefit regulatory system needs to have a broader focus than stated in the Consultation Paper.

Pensions Board and Department meetings: Members of the Pensions Committee continue to meet with the Pensions Board and the Department of Social Protection to discuss key current issues faced by scheme actuaries/ trustees. The main items for discussion have been the introduction of the revised Funding Standard and the simplification of the existing system, particularly in relation to the Funding Proposal process and also preservation.

The Funding Standard: The Pensions Board have announced that they will publish revised guidelines for defined benefit schemes as well as announce new deadlines for submitting Funding Proposals. The Society has indicated to the Pensions Board that it would be happy to work with the Board on the implementation of the revised Funding Standard. The Board has also recently published certification conditions for sovereign annuities.

Tax relief Sub Committee: This sub committee has recently prepared a position paper on the taxation of private pension provision. There will be a presentation on the Paper at the Pensions Forum.

Review of Pensions ASPs:

- The Working Party continues to review the issues that should be covered by ASP PEN-13 (Conflicts of Interest) and also the approach to be adopted.
- ASP PEN-12 (Statement of Reasonable Projection) has been revised to make allowance for the Pension Levy and now includes a single allowance for mortality improvements. The consultation with members regarding these changes has recently been completed.
- Discussions on possible changes to ASP PEN-2 have been ongoing over the last number of months. The most recent review of the financial assumptions resulted in no changes being made. However since then, there has been significant turbulence in both the equity and bond markets with bond yields on the key reference stocks falling to very low levels. The Society has recently written to the Department signalling the need to initiate a review of the Standard Transfer Value basis to reflect changing market conditions as well as the introduction of the revised Funding Standard and Sovereign Annuities. A key element of this review will be input from the Department on public policy aspects of the transfer value basis.

CPD: The Committee have finalised its CPD agenda for the rest of the year. Pensions Forum will take place on 30th November, which will discuss a number of current issues in Pensions. An evening meeting on accounting issues will take place on 8th December which will focus on recent IAS19 changes, accounting for the Pension Levy and a number of other issues.

EIOPA: A call for advice has been received from EIOPA on the IORP directive, certain cross-border aspects and other areas. A sub committee have been formed to answer this call, via Groupe Consultatif by the deadline on 2nd January 2012.

Solvency II

Consultation Papers

- EIOPA issued draft level 3 text on the Actuarial Function and Actuarial Guidelines to selected stakeholders, including the Groupe Consultatif, for pre-consultation. The Committee has reviewed these and provided comments to the Groupe.
- The European Commission has published level 2 consultations on ORSA and on Public Disclosure and Supervisory Reporting including Quantitative Reporting Templates. The deadline for these is 20th January. We will review these with a view to providing comments through the Groupe Consultatif.
- In addition, there has been discussion about draft consolidated level 2 text. There is some uncertainty about whether this will be issued for public consultation or not.

Working party

- A working party is preparing a paper on "Creating effective actuarial & risk management functions under Solvency II". The working party wil report in Q1 of next year.

Member events

- A paper on uncertainty in technical provisions for general insurance was presented at an evening meeting on 26th October. Papers were presented at the General Insurance Forum on 25th November on communicating uncertainty, uncertainty in the balance sheet and on actuaries moving to the risk management function.
- An update on Solvency II will be provided at the Life Forum on 7th December.
- There is an evening meeting scheduled for 24 January 2012 on level 2 and level 3 measures. Full details will be posted on the Society's website shortly.
- Other presentations are being planned for the first half of 2012.
- Interaction with the Central Bank of Ireland: We were asked to contribute questions for the CBI's Solvency II Pillar I forum on 29th November.
- Groupe Consultatif Actuarial Standards: The Groupe Consultatif is developing a standard on the Actuarial Function report required under Solvency II. The Society will be represented on this task force.

Note: Minutes of the Practice Committees are available on the Society's website under the Professional Interest Area: https://web.actuaries.ie/committees *(member login is required)*

Eurozone and Sovereign Bonds

On Monday 5th September, David Warren, CIO of Zurich Life Assurance, delivered a presentation titled "Eurozone and Sovereign Bonds – Past, Present and Possible Futures" to a large audience in the Alexander Hotel. David stated that the views expressed throughout the presentation are his own, and not necessarily those of Zurich.

David began by highlighting a few of the key messages from the presentation:

1) Not a lot is known about the topic of debt sustainability. Mathematical models are used, and are of interest, but looking at these in isolation is not of great assistance from an investment point of view.
2) Sovereign Debt crisis is not new – there have been many crises over the years but the knowledge about them is limited. The capacity of the investment industry to repeat mistakes seems unlimited and although the traders and narrative change over time, the incentives don't appear to. There is often the belief that "This time it's different."
3) Financial market participants do talk about problems, but there is the idea that if an issue is discussed, then it can be discounted. There is an illusion of depth and liquidity in markets so that experts believe they can exit the market before other market participants. This gives rise to a false sense of security which is reflected by issuers and buyers.
4) We cannot look at the current debt problems without appreciating how they arose. Here, David explained the debt super-cycle in developed economies over the last few decades.

David continued by discussing how many financial instruments have been created simply because they can be. Often the inherent value in them is questionable and these have the capacity to cause harm to the markets. The example David used to illustrate this was that of Credit Default Swaps on Sovereign Government Bonds. A lot of the harm of modern financial instruments stems from two factors: firstly, many instruments increase the leverage in the system, and secondly, one side of the deal is usually concentrated. This concentration increases the risk that one player will cause a negative domino effect.

Technology has also played its part – technology has accelerated the idea of detachment, allowing risk to be sliced up between different stages, which increases the total risk in the system.

David then showed a slide illustrating the traditional banking system and the "shadow" banking system of structured finance, investment banking etc. This was used to highlight the complexity of the shadow banking system which is driving the economy – and it raises the question of how people can understand or monitor such a complex system in practice.

The next section of David's presentation dealt with the loss of perspective in the markets, which is due in part to technological advances. Although there is an abundance of information available at people's fingertips, few people understand the financial market and economic history. This increases the chances of past mistakes being repeated in the future.

There is also a reliance on rating agencies and the belief that they must be correct. For example, although it was known that Credit Default Options were leveraged instruments, people accepted them as having AAA status as this is how the rating agencies rated them.

David continued by discussing how benchmarks are a key building block of modern portfolio investing. However, there is a reducing incentive for investors to significantly differentiate index components and treat each as distinct investments, which makes buyers more complacent.

For example, once a country becomes part of a particular benchmark, a new range of potential buyers is introduced. Irrespective of whether the country in question is in trouble, a portfolio manager will gain comfort from the fact that they are investing close to the performance benchmark as specified to them, and that he is not too far from others who are doing the same thing.

David then discussed the situation in the US where its currency is a "reserve" currency and likened this to being part of a benchmark. The US doesn't have to worry about earning foreign currency in order to pay its overseas lender. This reduces the pressure that a creditor nation like China can apply to the US. In an extreme scenario, it may even make it easier for the US to selectively default against foreign lenders.

The next section of David's presentation raised the question of who controls the Eurozone and highlighted the co-ordination problems in the Eurozone. Although the ECB can make decisions quickly, monetary policy is only one part of the infrastructure of a currency. The Euro has been a successful administrative venture; however it is not yet optimal. To successfully operate a single currency environment there needs to be some form of central treasury and taxation functions along with a central government.

In this recent crisis in the Eurozone, the ECB did supply system-wide liquidity but the solvency aspect of the banking system was dealt with at a country level. There was no one institution whose function was to protect the banking system of the Eurozone as a whole.

David next introduced the topic of what is meant by debt sustainability – is it the persistence of low long-term interest rates, low and stable debt/gdp ratios or stable ratings from agencies? Although the maths of debt/gdp ratios is known, he questioned how useful these ratios are if looked at in isolation. There are a number of other factors which should be taken into account, as they can influence the supply and demand of government debt - for example, demographics and cultural factors are important and will not be reflected in the pure maths. He illustrated these points using Japan and Italy as examples.

The final section of David's presentation discussed the limited options available in a debt crisis situation. These are: to reduce current debt servicing costs, term out debt maturities, default, "free money" or debt forgiveness. David discussed Eurobonds, how policy reaction could help to prevent a crisis spiralling out of control, and how inflation burning could help to "burn off" debt relative to income.

Discussion

After the presentation, David opened the floor to questions on the topic – which generated some interesting discussions. Paul O'Faherty closed the meeting and thanked David for his presentation on this topical subject.

Niamh Ryan

Q & A with Paul O'Faherty

SAI Presidential Address L to R: Antoinette O'Faherty, Norbert Englert, Michael Walsh, Paul O'Faherty, Louis O'Faherty and Rory O'Faherty

Career Summary:

Joined New Ireland in 1974 straight from school. And after 6 years study, fun and, of course, hard work left in 1980 to join Pension and Investment Consultants which later became part of Mercer. In Mercer have worn many varied and interesting hats over the years and am currently Chief Executive of our business in Ireland. Was Chairman of the IAPF from 1997 to 1999.

Family:

Married to Antoinette for nearly 30 years and have two sons - Rory and Louis.

When did you first hear about the actuarial profession:

1st July 1972 when my mother spotted a tiny article in the Irish Press about the formation of the Society.

Funniest actuarial moment:

Back in New Ireland in the 70's we used to stack really heavy printouts of mortality and interest rate factors on the window ledges of our 3rd floor office overlooking Dawson Street. One summer's day with the windows open someone brushed against the printouts and one of them started to disappear out the window. With a desperate lunge one of us (not me!) managed to retrieve it. And quick as a flash one of my fellow students slightly wistfully said "Imagine tomorrow's headline in the Evening Herald - ***Man Killed In Dawson Street By Falling Interest Rates***".

Favourite holiday place:

We love travelling and seeing new things but Dungarvan, where Antoinette is from and where we have a second home, is a great bolthole.

Favourite restaurant:

The Tannery in Dungarvan – Paul Flynn's Crab Crème Brûlée would be my death row starter.

Favourite tipple:

Any nice Sauvignon Blanc.

Favourite song:

Has to be Shane Mc Gowan's Fairytale of New York

Last book you read:

Anglo Republic (Simon Carswell)

Best piece of business advice:

Things are never as good as they appear or as bad as they seem.

Most annoying phrases:

"It is what it is" and *"We are where we are."*

Favourite singer:

Leonard Cohen - we've seen him live 4 times in the last few years and would go again.

Spare time:

Bad golf, occasional cookery, cycling, walking and, of course, these days the Society.

If you weren't an actuary what would you be:

Probably a bored chartered accountant

Something you mightn't expect:

With friends, Antoinette and I this year completed a 5 year project of walking in stages the 800km Camino de Santiago in Spain – a great experience.

What car do you drive:

A Saab 9.3 convertible – I decided to get my mid life crisis over early!

Would you recommend an actuarial career:

Absolutely in fact I'm trying persuade my niece who's finishing a Maths degree in Trinity that she should join up!

Worst thing about being an actuary:

Overcoming our grey stereotype

Favourite television programme:

MasterChef

Dying words:

Happy 2050!

Student Society Social Events: pre and post exams

Table Quiz

With the exams fast approaching, the students took to the library bar in Dicey Reilly's on Thursday 18th August. However, this was no study session, but the Student Society Table Quiz.

A total of 12 teams took part in a very competitive battle of trivia. There was much debate over whether it was John or Edward in the picture round, while knowledge of the gun on the Mozambique flag proved challenging for the participants.

The winning team were "I am Smarticus" with a hard-fought score of 67 out of 80. Congratulations to John Sheppard, Colm O'Leary, David Woods and James Cunningham.

There were also spot prizes for the best team name and for solving a maths puzzle, rewarding imagination & the use of simultaneous equations.

The proceeds of the entry fee went to charity, with the winning team choosing the Cystic Fibrosis Hopesource Foundation.

Ciarain Kelly

Wine Tasting Evening

The dark evening of Thursday 10th November saw 65 student actuaries gather for the now annual wine tasting event. Exams were well and truly a distant memory, instead it was time to study the nose, palate and appearance of six different wines.

First up was a frizzante Prosecco. Cameron from the Dublin Wine Tasting Company regaled us with the stories of how sparkling wine was first invented by monks who actually spent their time trying to actually remove the bubbles rather than add them in. Unthinkable!

Another two white wines were sampled and attendees learned how to quaff, slurp and gargle the wine. Then it was on to the reds, including a Spanish Rioja. Finally, there was a competition for best conclusion, a la the Sunday Times wine column. Crowd favourites were quips which likened the wine to Jedward and a Tom Doorley-esque review.

A great night was had by all and we left with a new found appreciation for rich, woody reds and acidic New World wines.

Rachel Gow

On the Move

Fellows:

Vincent Oliver has moved from Standard Life to **Allianz Worldwide Care**

Anthony Collins has moved from Euro Insurances to **MMA Insurance plc**

Clare Reidy has moved from Canada Life to **Towers Watson**

Trevor Booth has moved from Mercer to **CUNA Mutual**

Eamon Loughnane has moved from Aviva to **Canada Life**

Frank O'Regan has moved from Aviva to **MetLife Europe Ltd**

Students:

Crevan Begley has moved from Willis to the **Central Bank of Ireland**

Brian Colgan has moved from Aviva to **Barclays Insurance**

James Hannon has moved from Irish Life to **MetLife European Services**

Dermot Mannion has moved from Generali to **MetLife Europe Ltd**

Brendan Guckian has moved from Irish Life to **Aegon Ireland**

Gerard McDermott has moved from Aviva to **MetLife Europe Ltd**