



Newsletter

The Society of Actuaries in Ireland

November 1999

Editorial

Welcome to the November 1999 newsletter. The Society's calendar of events kicked off in October and we have included reviews of the initial meetings in the newsletter. We have also introduced a section which reviews the life and times of some of the more interesting characters in the profession. Autobiographies are welcome at any time!

Another addition to the newsletter this month is the introduction of a crossword and puzzles page, which Sean Casey has kindly offered to sponsor - £50 for the first correct crossword entry and £50 for the first correct quiz entry, to be drawn from all the correct entries received in the Society's office by Wednesday 8th of December. The draw will take place at the "Christmas Drinks night" in The Stephen's Green Club on Wednesday 8th.

Further work has been completed on the Irish Mortality Statistics Report. A draft of the report has recently been reviewed and approved by the Life Committee. There are a number of minor amendments required to reflect late data changes from a couple of offices and results will be circulated to all contributing offices in November.

Another publication, which everyone should have received during October, is the new IAPF magazine 'Irish Pensions'. The Society has been asked to contribute to the magazine on a regular basis and our position on the Single Regulator was put forward by Jimmy Joyce in the first issue. Congratulations to the IAPF on an impressive first issue.

Articles for future editions of the newsletter are always welcome and can be sent to either Frances O'Shea, Michelle Roche or Mary Butler.



New Qualifiers

Standing

Ger Bradley
Ceall O'Dunlaing
Shane O'Farrell
James Mulrooney
Ray Leonard
David O'Dowd

Seated

Michael Bennett
Jimmy Joyce
(President)
Olive Gaughan
Conor Daly

Absent from photograph

Ronan O'Lideadha
Damien Fadden
Brona Magee

Presidential Address

Jimmy Joyce gave his Presidential Address to a very well attended meeting at The Stephen's Green Club on 14th September. Having welcomed some special non-actuarial guests, he referred briefly to the various current enquiries and tribunals affecting the financial services sector, in particular insofar as they reflected on the conduct of public administration. He expressed his belief that the reputation of the public service would survive the present trauma and that the service would have the character to face up squarely to past deficiencies and the capacity to remedy them.

Jimmy then dealt with the proposed reform of financial services regulation through the setting up of a Single Financial Regulator. He considered the proposed reform timely in that regulatory structures had not kept pace with the considerable changes in the financial services marketplace in recent years. He stressed the importance of getting the basic constitution of the new regulator right from the start, with clear powers and objectives, operational independence and adequate resourcing. He suggested that a priority for the new Authority should be to consider an optimum supervisory structure and suggested that financial regulation is carried out most effectively when a proper balance is achieved between external supervision by an independent regulator and internal compliance. ➔

This issue includes the following reviews

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Presidential Address continued

He pointed to the Appointed Actuary and Scheme Actuary systems as models which should be capable of development in other areas.

Turning to the profession's main practice areas, Jimmy referred to the long running life assurance disclosure debate. He said that a major challenge for the Society in implementing the proposed regulations would be to retain its independence in discharging its statutory functions while also achieving successful liaison with the supervisor and industry interests. In relation to general insurance and health insurance, Jimmy commented that industry and market developments were in one sense making the issue of a statutory actuarial role redundant in that insurers now invariably employ actuaries anyway. However, he felt that we should continue to press the case for a statutory role on the grounds that this would enhance the actuary's ability to perform the function of ensuring long term financial stability most effectively.

Among the issues mentioned by Jimmy on the pensions front were The National Pensions Policy Initiative (NPPI) implementation and the proposed National Pension Fund. He disagreed with criticism of the pace of NPPI implementation on the basis that the issues involved required a cautious and deliberate approach and, in the case of the putative National Pension Fund, felt that the details of the proposal would require a lot of fundamental and critical scrutiny, particularly in relation to prudential and investment policy aspects. Jimmy also dealt with a number of matters in the international arena including the EU solvency margin review, the recent commission initiative on

supplementary pension provision and the development of international insurance accounting standards.

Having commented on the so-called "traditional" areas, Jimmy said that he actually rather disliked the concept of specific areas as he felt it was a limiting one. He pointed to the broadly based professional training of the actuary which provided specific expertise applicable to all areas of finance, investment and risk but also provided a solid grounding for general management responsibilities. He contended, therefore, that the profession should see its specialist field as being in financial services in the broadest sense and that mobility among functions and within industry sectors should be regarded as a normal feature of an actuary's career.

Referring to the relationship between society at large, a professional body and the members of a profession, Jimmy described our debt to the public interest in the simple terms of a return on the confidence and recognition which society reposes in us. Equally significant was the debt which each member owed to the collective tradition, wisdom and reputation of the profession. In endeavouring, in serving our clients, to serve the public interest and the profession also, all could readily aspire to be a "credit to the profession".

As an agenda for his term, Jimmy said that we as a Society:

- * should continue to play our full part in shaping developments in financial services while ensuring our independence of sectional and commercial interests
- * should endeavour to take a public interest stance in commenting on public policy issue

- * should broadcast the advantages of the regulatory philosophy he had set out and the role which the profession could play in rendering it effective
- * should press ahead with constitutional changes designed to democratise our structures and broaden our frontiers
- * should organise a full range of professional development activities.

Jimmy concluded that the Society was in great shape. To have been asked to lead it into the new Millennium was, he said, the highlight of his career to date.

A lively discussion ensued which testified to the range and scope of the Address and the interest it generated. All in all, a significant occasion. •

Ivor O'Shea

Internet Strategies for Financial Services Companies

The summer break from meetings was interrupted briefly when Sean McGing offered to give a lunchtime talk based on his paper "Internet Strategies for Financial Services Companies" which he had previously presented to the Institute of Actuaries of Australia at its biennial convention in June of this year. Sean, an Irish actuary living and working in Melbourne for the last fifteen years, has always had a personal interest in information technology in financial services and has recently set up his own company, ASK/IT Consulting, in which he specialises in the mix of actuarial and information technology.

In writing this paper Sean had three specific aims:

1. to introduce and explain internet concepts and practices,
2. to demonstrate that the "evolving actuary" is well placed to "untangle the web" by applying core actuarial skills and techniques,
3. to identify and assess strategies that financial services companies could adopt.

After a brief introduction to what the internet is and how it has developed since its origins, Sean talked about how it could be used by financial services companies to sell and service products to new and existing customers.

He described how the actuary's ability to learn and apply new concepts quickly fitted in well with the internet and proceeded to illustrate how the actuarial control cycle can be applied in an internet context.

A Strengths, Weaknesses, Opportunities and Threats (SWOT) analysis was used to identify a list of internet attributes, commenting on their current and likely future impact on the financial services industry.

Sean then focussed on how to identify and incorporate internet opportunities into corporate strategies making a number of recommendations for both the individual and financial services companies.

He finished up with some of his own views on the internet and its future.

The discussion which followed showed that there is much interest in developing internet strategies. However, uncertainty about potential development costs and security remain.

Sean's parting comment was taken from The Jobs Almanac 1999 -
World's Top Jobs
No. 2 Actuary
No. 1 Webmaster
.....combining both jobs.....?! •

Frances O'Shea

What has the Internet ever done for you?

Why not use it to book your attendance at the next Society meeting by sending an email to actuaries@iol.ie (also known as Mary Butler). You can also do this from the Society's web-site (www.actuaries-soc.ie) by clicking on the highlighted email address on the top right of the home page. Your email program should appear, ready for you to send a message to the Society. Don't forget to forward your payment by post!

While you are in the site, please have a look around and then email us with any suggestions that come to mind. •

Pat O'Sullivan

Evening Meetings Membership Information

Following the circular issued last January regarding evening meetings I am happy to report a continued improvement in the area of prompt reservations and payment for evening meetings. Thanks again to the members of the Society for their positive response in this regard which has been a great help to our Functions Secretary (Ivor O'Shea) and our Administrator (Mary Butler).

As visitors/guests of The Stephen's Green Club, we should conform to their rules and/or etiquette. As outlined in my notice to members last year, please note that *neat dress is required - jacket with collar and tie is the dress code for men.* In particular, denims or equivalent are not acceptable. •

Stephen Doyle
Secretary

Logarithms belong to the first half of our profession's history, the half shared with Dickens' *Hard Times* of the smoking chimney stacks, pounding steam engines and dark canals.

The apprenticeship of the early actuary, log tables in left hand and pencil scribbling in right, does not strike us as appealing - that is, until it is compared to the alternative toils of that grim time.

The Life and Times of Dr. Edward Sang

It is not so odd then that there is no word to describe a person that loves calculating log tables. Yet such a word is needed to describe two of the 38 gentlemen that constituted the Faculty of Actuaries in January 1956. But Ebenezer Erskine Scott and Edward Sang were not equals in their devotion; for Mr Scott it was just an infatuation. Dr Sang had it bad.

The numbers are mind-numbing. Edward Sang, in his terse introduction to *A New Table of Seven-Place Logarithms of all Numbers from 20,000 to 200,000* claimed to have done more calculations than the previous two great original works of log tables (viz., Briggs Tables of 1624 and Vlacq's tables of 1628) from which all the others had been derived. Sang, single-handedly and without recourse to any existing tables, calculated the log of the numbers from 100,000 to 200,000 to at least 15 decimal places (which he truncated for publication). But these tables of 1871, commissioned by the Associated Life Insurance Offices in Scotland, were just a tease. A note at the back of the tables requested the support of 'all interested in the advancement of exact science' to help defray the publication costs of the *Million Table of Nine-Place Logarithms* of three volumes, each of three parts.

These ambitious calculations were not completed before Dr Sang's death in 1890, despite the aid of his daughters when his strength ebbed. They got to 370,000. Every calculation was checked three times and the results carried to at least 15 decimal places. Dr Knott, General Secretary of the Royal Society in Edinburgh in the early part of this century, once urged the publication of part of the manuscript tables that the Sang family gifted to the Society. He estimated that it was

possible to produce part of the beautifully scripted numbers, giving the 28 figure logarithms of 0-10,000 and 15 figure tables in the range 100,000 to 200,000, 'conveniently' in a single volume of somewhat over a thousand pages. Professor Andoyer viewed the work as the fundamental basis for all future tabulations of logarithms.

Time, with a bit of effort, has developed the technology that makes logarithms unexciting. Dr Sang's life's work, though, is not undone. True, he published some other books that could more quickly (but scarcely more accurately) be computed today - for instance, the Time Conversion Tables (mean solar to sidereal and back again for every tenth second during twenty four hours) and two volumes of life assurance and annuity tables. His great contribution from our standpoint was to help define the term 'actuary' so well that it could survive when so little else did. He was a founder member of the Faculty, its first lecturer and its consultant on the early examinations. His first four lectures (see box) set in train the perpetual occupation of actuaries.

One thing that cannot be figured out from thumbing through log tables is the man behind the numbers. At the 1914 Napier Tercentenary Exhibition when 47 manuscript volumes of his calculations were displayed 'all who looked carefully into them must have been greatly impressed with the power of the calculation and tenacity of purpose which enabled their author to leave behind such a mass of accurate figuring'. This is a poor obituary to any actuary. The exhibition displayed only a caricature of a man who went to extraordinary ends to relieve others of the burden of calculation.

Dr Sang published over a hundred books and papers. He made that difficult transition from child prodigy (University at the age of 13, etc.) to productive adult. He was a Professor of Mechanic Science (at Manchester and at Muhendis-Hana Berii, Constantinople) in the heyday of that science. When he came to describe himself he would mention that he was Secretary to the Royal Scottish Society of Arts (for nearly three decades), then a Member of the Faculty of Actuaries and only then Professor et cetera. Much to take pride in, if that was not a sin. Yet for all his accomplishments there is a hint of disappointment about his life. In 1837 he read a paper to the Royal Society in Edinburgh entitled *Investigation of the Action of Nicol's Polarising Eye-piece*. Unaccountably, it was not published nor even mentioned in the *Proceeding*. Dr Sang, when reviewing his life near its close, confided in Professor Tait that he thought this paper his best contribution to science. It was published in 1891, posthumously and a few decades after it could influence developments in that area.

Few people are excited by log tables these days. In the unlikely event of the date change at the end of this year disrupting our calculators, we can reach for our reliable friend. It is only fitting that a founder of the profession that provides for unlikely events has provided for this one. •

Shane Whelan



Dr Edward Sang, 1805-1890, who had inscribed on his telescope, "He rewardeth the searcher and keeper of His Laws".

First lecture series to Students of the Faculty of Actuaries, E. Sang, 1857

- A** Outline of the History of Assurance against Casualties. Rise and progress of Tontines, Benefit Societies, Sick Societies and Assurance Associations in General.
- B** The Commercial, Moral and Social Influences of Assurances - the applicability of the principle in different circumstances.
- C** The History of Unsound and Fraudulent Schemes, and the Characteristics which distinguish them.
- D** The data on which the Calculations are founded. Mortality Registers. Effects of different Rates of Interest and different Mortality Tables, in framing tables of Rates and in making Valuations.

Valuing Our Customers

Dave Mynott spoke firstly about game theory. Classical game theory suggests that in a three-person game the two stronger players generally conspire against the weaker player. Until recently the life assurance market might have been thought of in such a way; the insurance company and the distributor as strong players, the customer, with inadequate knowledge, as generally the weaker player.

In the US, in recent years, all of this has changed. The customer now has a very strong ally in the regulator and it is no longer possible for the two stronger players to conspire to the detriment of the customer. If front-end loads and indemnity commissions disappear, it may not be possible to make a quick profit from a customer and offices will have to take a longer view. It is therefore very important that the life insurance companies come to understand the long-term value of their customers.

The title of the paper, "Valuing Our Customers", can be taken two ways. Whilst actuaries are primarily interested in putting a numerical value on the customer, we should also remember the second meaning i.e. that customers are important to us.

In determining a customer valuation we need to combine product assumptions with customer assumptions. Embedded value techniques can then be used to extend the valuation of existing business to future business which existing customers might buy and possibly even to putting a value on other prospects which satisfied customers might introduce to us. Customer Value Management can then be used to structure the business and configure the customer offer to maximise the long-term profit to the office.

The paper suggested that three basic assumptions which might be used for customer behaviour concern persistency, the cost of servicing the customer and his or her propensity to buy new products. The influencing factors would be satisfaction with the company, basic attitudes such as loyalty, the life stage of the customer and the state of his/her finances.

A fictional life company with four types of customer was proposed to illustrate the techniques and suggested some types of customers were profitable but that others were not. By targeting product offers at the more profitable customers and managing lapse rates it was possible to significantly increase the equity value of the company.

David Gott spoke about the different types of customer analysis that have been done in other industries and in other countries. He suggested that banks have done quite a lot of work in this area and were trying to influence the type of customers they would prefer to do business with. Counter charges for paying bills are an example of trying to discourage the sort of customers who might be unprofitable for the bank.

The discussion afterwards largely centred on whether life assurance companies could use the techniques of other industries in customer analysis, although some companies have made a start on this by contacting customers who lapsed and trying to find out the reasons for the lapsing. It would also be a major culture difference to persuade sales people that not all business is good business. In conclusion, it seems we have a long way to go in understanding, let alone valuing, our customers. •

Jonathan Gould

International Association of Consulting Actuaries

The International Association of Consulting Actuaries (IACA) represents all consulting actuaries across the world, and has become associated with the International Actuarial Association (IAA) as its Consulting Section.

IACA holds conferences in different continents and countries every other year. The next conference is in Hershey, Pennsylvania, USA on June 4-8, 2000. More details of the conference, and indeed of the Association, can be obtained through their web site

<http://www.iacactuaries.org>.

For conference information contact their conference co-ordinator, Shermer Associates at shermer.assoc@paonline.com.

International News

Groupe Consultatif Meetings - Vienna 7/8 October 1999

International Presidents Meeting - San Francisco - 15 October 1999

Groupe Consultatif Meetings

Insurance Committee (B Maxwell):

We reviewed the response to the EU Commission proposals on Solvency Margin changes. The Groupe met the Commission to go through the response on 20th October. Changes, if implemented, will increase the minimum solvency margin amount, introduce a third index for general insurance calculations (related to technical provisions), and possibly increase the 0% margin for certain unit linked business to 0.25%. The supervisors are concerned about their ability to identify companies with solvency difficulties early enough. The Groupe consistently pushes for an annual actuarial report to assist them in this. Also discussed was the latest position on the possible introduction of 'Fair Value' accounting for insurance business. The International Accounting Standards Committee (IASC) are expected to publish a major Issues Paper on this before the year end. Both the Groupe and the International Actuarial Association (IAA) will be aiming to influence its direction.

Freedoms and General Purposes

(J Kehoe): The implementation of the mutual recognition agreement is being monitored by this Committee. An approach has been made to the EU from the USA about introducing a mutual recognition agreement. The EU have met the Groupe to discuss this on the grounds that the Commission recognises the Groupe as the representative body for actuarial associations in the EU. The Groupe believe any such agreement should be directly with the US associations. Informal discussions between the Groupe and US representatives have been arranged for Paris in December.

Groupe AGM (P Kelly, B Maxwell):

New Associate members were admitted from Cyprus and the Czech Republic. New Observer members were Croatia, Estonia, Latvia, and Lithuania. The Association des Actuaries de Bretagne was accepted as a full member having met all the required criteria.

The annual meeting reviewed the reports from each of the Groupes Committees. The revamped Investment and Financial Risk Committee presented a list of intended actions, the first being to review the proposed changes to the Basle Rules on Banking Risk Capital. They are to send in a report to the Commission by next March. The Society should nominate a member to sit on this Committee.

The Education Committee has completed its work on a Core Syllabus for Actuarial Training in Europe. The Society is represented on the Committee by Shane Whelan. All associates have given the Syllabus general support and an agreement for its implementation is being drawn up. This will require most associations to work with their relevant universities to ensure its effective implementation, which it is hoped to have in place by 2001.

The 2000 Colloquium will be held in Oxford (Blenheim Palace) on 15th September. The topic has yet to be agreed. The 2000 annual meeting will be held in Bilbao in October.

Paul Kelly retired as membre titulaire for the Society of Actuaries in Ireland after representing the Society for sixteen years. During that period Paul was Chairman of the Groupe's Pension Committee and was Chairman of the Groupe. A presentation was made to Paul by the Groupe and he was elected as an

Honorary Chairman in recognition of his contribution to the Groupe.

International Presidents Meeting, San Francisco, 15 October 1999

The main discussions were around the issues of mutual recognition. Some movement was noted on this between the Society of Actuaries in America (SOA) and UK and Australia, but there is still some way to go before any agreement will be settled. There is plenty of interest on all sides for it to succeed. The US issues include the multiple actuarial bodies and the need to be a member of the American Academy of Actuaries in order to be a 'signing' actuary. A signing pensions actuary has to be 'enrolled' by the US Government through passing its examination. The Americans clarified the approach made to the EU and agreed to send a delegation to discuss the issue with the Groupe Consultatif in December. Each country outlined its current position on their long term strategic reviews for the actuarial profession. It is noteworthy that each major actuarial body is in the throes of such a review, and there is constant contact between them on their thinking and the developments within their own body. Moves on actuarial education feature highly, as well as the desire to bring 'non actuaries' performing 'actuarial type' work into the profession.

I presented a gift to the SOA from the Society in recognition of their 50th anniversary (Waterford crystal bowl, suitably inscribed, and much admired) at a special reception. The SOA received gifts from actuarial bodies from all over the world including five from China (plus one from Taiwan). Indications are that China could have more qualified actuaries than America within three or so years. •

Bruce Maxwell

Golf Outing

When the day dawned cold and wet the first thought that crossed my mind was - oh no! the Madden curse has struck again (sorry Michael!). But the day soon brightened and The Castle Golf Club welcomed some 47 keen golfers - and then proceeded to humble many of them.

In the event a great day was had by all. After a welcome bowl of soup, and armed with a goody bag that looked like it was left over from Valentine's day, each threesome marched to the first tee. The highlight of the day was Ciaran Long's drive off the first tee box - well just about! It would have been a contender for the shortest drive prize but for a magnificent effort by the Captain himself on the fourteenth.

Having survived a near miss on the fourth the President was kind enough to present the winning prize to David Harney. The matchplay prize was presented to Maurice Whymys. Well done David and Maurice!

The final task of the day was to announce the name of the Captain for the Millennium - Tony O'Riordan. Best of luck Tony.

And finally thanks go to John White, Mary Butler and Helen Buggle for all their help. •

John Feely
1999 Captain

Appointments



Marese Hussey

Scottish Amicable International Assurance are pleased to announce the appointment of Marese Hussey as Appointed Actuary. Marese has been with Scottish Amicable International since its inception in 1994 and previously worked with Irish Life.



Patricia Colton

Hibernian Life are pleased to announce the appointment of Patricia Colton as Appointed Actuary. Patricia joined Hibernian Life in 1983 and since then has held a variety of positions, more recently as Financial Reporting Actuary.



Anthony Brennan

Eagle Star Life (Ireland) and Eagle Star European are pleased to announce Anthony Brennan as Appointed Actuary. Anthony joined Eagle Star in 1985 and since then has worked in several different positions within the group, gaining a wide range of Actuarial and Management experience.

On the Move

⇒ Fellow Members

Joyce Brennan has moved from Mercer Limited to **Arthur Andersen**

Anton Davies has joined **Angle Irish Bank** from Norwich Union

Brenda Dunne has joined **Canada Life Assurance Company** from Irish Life

Colin Rainier joins **Hannover Life Reassurance (Ireland) Ltd.** from London Reinsurance Group

Tony Jeffery joins **ESG Re** from Eagle Star Life Ireland

⇒ Student Members

Oliver Coakley has moved from Irish Progressive to **Hewitt Associates**

Tom Howard has joined **Lifetime Assurance** from Hibernian Insurance

Roma Crawford has moved from Seagrave-Daly & Lynch to **New Ireland Assurance**

