The Society of Actuaries in Ireland

## **Modelling and Managing Corporate Liabilities and Portfolios**



Professor Siddartha Sen, Professor of Mathematics, TCD; Dr. Paul Quigley, AlB Group Risk; Professor Andrew Cairns, Head of Actuarial Mathematics and Statistics, Heriot-Watt University, Scotland; Colm Fagan, President, Society of Actuaries in Ireland; Dennis Van Ek, Mercer Europe; John Andrew McQuown, Principal, Diversified Credit Investments; and Pat Ryan, Chairman, Finance & Investment Committee, Society of Actuaries in Ireland.

The Hamilton Mathematics Institute, Trinity College Dublin and the Society of Actuaries in Ireland jointly hosted a seminar on 27 October 2005 on Modelling and Managing Corporate Liabilities and Portfolios.

#### **Interest Rate Models: An Overview**

Following an opening address by Professor Siddartha Sen of Trinity College Dublin, Professor Andrew Cairns delivered his presentation on interest rate models.

Professor Cairns started his presentation by outlining the characteristics of a good interest rate model. A model should respect past data, should give rise to a range of yield curve shapes and should allow

for long periods of low and high interest rates. In addition to this, extreme levels of interest rates should occur with reasonable probability. Two other constraints that should be inherent in a good model are that the model should be arbitrage-free and should always generate positive rates. One practical consideration is that the model should generate its results quickly on the available technology.

Professor Cairns then went on to outline the characteristics of three types of arbitrage-free models - risk neutral, positive interest and money market. In choosing an appropriate model, the first question to ask is what the model will be used for.

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### **Modelling and Managing Corporate**



Professor Siddartha Sen, Professor of Mathematics, TCD; Colm Fagan, President, Society of Actuaries in Ireland; Dennis Van Ek, Mercer Europe.

The time horizon involved should also be considered. Multi-factor models were then introduced briefly with reference made to a number of risk neutral models, including those by Vasicek, Barrie & Hibbert and a positive interest model developed by Professor Cairns himself.

The need for a multi-factor model again depends on the application to which it is put. For UK risk assessments of deferred annuity portfolios a single factor model might be sufficient but in pricing longer dated interest rate derivatives, multifactor models are probably necessary and may require stochastic modelling of interest rate volatility.

### Modelling and Managing Bank Capital post Basel II

This presentation was delivered by Dr. Paul Quigley of AlB. The starting point was a recap of the three-pillared approach to maintaining a sound financial system. The first pillar relates to minimum capital requirements, the second relates to the powers of the supervisor and the third relates to the disclosure

requirements imposed on financial institutions.

Minimum capital requirements are based on operational and credit risk. Quantifying operational risk is extremely difficult and Dr. Quigley identified this as an area where actuarial techniques could prove very useful. In relation to credit risk, there is a move away from a simple standardised approach to a more sophisticated internal ratings based (IRB) approach. Under this approach, financial institutions are permitted to derive capital requirements based in part on their own experience.

Capital requirements must be calculated at an individual account level. There are two versions of the IRB approach – the foundation approach and the advanced approach. Under both, the bank can derive its own probability of default measures on different types of business. Under the advanced approach, the bank can also estimate the loss that will arise in the event of default. There is considerable merit in pursuing the advanced IRB approach since typically the calculation will

produce a significantly lower capital requirement.

Dr. Quigley then went on to highlight the challenges associated with implementing an IRB system. In the first instance, models need to be developed. The models then need to be validated. The rules state that banks have to validate the accuracy of their ratings systems, including the comparison of actual observed defaults to the estimated probability of defaults. This poses a particularly difficult challenge in Ireland at the moment, since default rates are very low while model predictions are based on default expectations over a full economic cycle.

In relation to Pillar II, Dr. Quigley outlined a number of the main compliance issues. One of these relates to a comprehensive assessment of risks and introduces the need for stress testing and scenario analysis. Currently most firms adopt very simple approaches to this analysis and so there is scope to develop these processes further.



### Liabilities and Portfolios...continued

A key factor in driving these developments forward is achieving the buy-in of senior management. As in most things, winning over hearts and minds is crucial.

#### 21st Century Techniques in Asset-Liability Management

The third presentation of the morning switched the focus onto pension funds and was delivered by Dennis Van Ek of Mercer Europe.

Dennis outlined how pension funds in the Netherlands operate under an extremely stringent regulatory regime which now requires, for example, that minimum 'buffers' in excess of statutory liabilities are held by pension funds (with the extent of this required buffer dependent on the risk level of the asset strategy) and that deficits are to be recovered within periods as short as one year in many cases.

As has occurred in Ireland – albeit to a more muted degree thus far – this type of environment has led to a heavy requirement for detailed modelling of market-related pension liabilities. Dennis gave the audience a flavour for the depth of interest rate modelling involved in identifying a 'liability benchmark portfolio' which accurately reflects the movement in the valuation of liabilities, not just matching by duration but also reflecting the convexity and third order effects of a series of pension liability cash-flows.

Using this 'liability benchmark' as a starting point, Dutch (and indeed UK and Irish) pension funds are now developing coherent asset strategies with clear and defined risk budgets relative to liabilities. This risk budgeting exercise has also led in many cases to the significant use of interest rate and inflation derivatives, such as swaps and swaptions, in order to hedge the substantial interest rate risk inherent in current asset strategies.

This talk gave the audience an interesting insight into future avenues of activity for Irish pension funds.

### Barriers to Excellence in Managing Corporate Bond Portfolios

The final talk of the seminar was delivered by John McQuown, a distinguished figure in the financial services industry world-wide for many years. John is Principal of Diversified Credit Investments LLC and spoke on the topic of corporate bond portfolios.

His provocative and lively presentation contended that the construction of bond indices such as the Lehman Credit index in the US is fundamentally flawed through overconcentration in selected large companies and industries, and through a resulting lack of 'true' diversification.

This over-concentration in a small number of large names, John contended, can be partly attributed to the fact that credit spreads of individual bonds are over-reliant on agency credit ratings, which in turn are inexact proxies of the true risk exposure to the securities issued by individual companies.

Stringent regulations in the form of accounting rules, capital rules and disclosure rules, in John's view, are further distorting the true efficiency of credit markets, leading to the natural conclusion that 'chasing' corporate bond indices through passive investment is a less optimal solution than quality active management.

John suggested that the current rapid development of the market in credit derivatives would be a major contributor to improving efficiency in the credit markets.

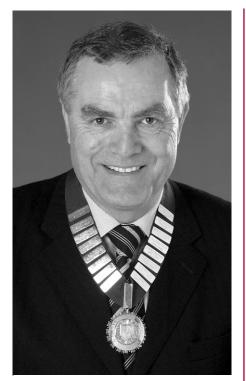
#### Conclusion

Following the four presentations, an interesting questions and answers session ensued and, to conclude, Pat Ryan (acting as Chair) thanked the speakers and audience for contributing to what was a varied and stimulating half-day seminar.

**Brian Griffin and Eamonn Liddy** 

# Newslette

### **President's Forum**



Colm Fagan, President, Society of Actuaries in Ireland

One of my more pleasant duties as President is to represent the Irish profession at international gatherings of actuaries. In June 2005 I attended the meetings of the International Actuarial Association (IAA) and the Presidents' Forum in Rome while in October last I attended the meeting of the Groupe Consultatif of EU Actuaries in Nicosia. Unfortunately, I couldn't get to the meetings of the IAA and Presidents' Forum in Rio de Janeiro in November but hope to make it to the next meeting in Paris in May. Yes, there are some consolations to being President!

At such gatherings, I have always been impressed by the very favourable impression that actuaries in other countries have of the profession in Ireland. No doubt, much of that favourable impression derives from the contributions that a number of our members have made to the workings of various international committees and subcommittees over the years. Without wishing to minimise the contributions of others, I would like to give special mention to Bruce Maxwell, Jim Kehoe and David

Kingston for their great work over many years. However, the good opinion of the Irish profession extends beyond that select group to include Irish actuaries who come into contact with their counterparts in other countries in the course of their "day jobs". All these people are worthy ambassadors for their country.

The actuarial profession in Ireland is blessed in that it has always attracted the cream of the country's second level and third level students. That recruitment success has paid off handsomely in terms of the quality of the finished product and is a major contributor to the positive international impression of the Irish actuarial profession. It also explains the high level of respect that the profession enjoys at home in Ireland, as evidenced for example by the number of roles reserved in legislation for actuaries across the main practice areas of life and nonlife insurance and pensions (not to mention the newly created roles for PRSA actuaries).

Those roles are reserved specifically for Fellows of the Society of Actuaries in Ireland, yet only a proportion of our members use the initials FSAI when advertising their professional affiliation, with many opting instead for the initials FIA or FFA. To quote an extreme example, I recently heard of an actuary who signed a certificate, which the law states should be signed by a Fellow of the Society of Actuaries in Ireland, using instead the initials FIA. with no reference whatsoever to whether or not he held the qualification needed in order to sign the certificate!

It is time for us to give more prominence to our membership of the Irish professional body for actuaries, with its own professional requirements, rather than as members of a UK professional body who just happen to practise in Ireland. While Council has no intention of going down the road of setting and marking our own examinations, at least not for the

foreseeable future, recent developments point towards the need for us to take greater control of our own destiny. More and more, the direction of the UK profession is being driven by narrow domestic considerations, with little or no attention being given to what the consequences might be for "home" members of the Institute or Faculty practising in Ireland. For example, the two most important recent drivers for change in the UK are the Morris Review and the profession's own strategy review. In the entire 168 pages of the Morris review, the only reference to Ireland is in relation to the education of actuaries, where it comments favourably on our "more fully developed university based model". Similarly, the UK profession's recent strategy review made no reference whatsoever to the problems that Irish actuaries face as home members of a profession that is increasingly UK focused. The future of the UK profession is increasingly being driven by UK legislative developments. We want to be able to chart our own future, and not be subject to the whims of UK legislators and regulators.

The need to take charge of our own destiny is heightened by the increasing divergence between legislation in Ireland and the UK across all the main practice areas. This also has implications in terms of overall subscription levels, since Irishbased members of the Institute or Faculty (or their employers) must bear the full cost of the profession's regulatory activities in Ireland as well as a proportion of the cost of the UK profession's regulatory activities.

There is good news on this front however. Councils of the Institute and Faculty have discussed this matter and are committed to reducing the cross-subsidisation between different categories of members. That includes ensuring that Irish-based members of the UK professional bodies receive value for money for the membership services appropriate to them. Hopefully, this will result in lower



Institute and Faculty subscriptions for Irish-based members of those two bodies from 1 October next.

Independently, Council of the Society of Actuaries in Ireland is examining ways of addressing the problem, including the obvious one of dropping the long-standing requirement that Fellows of the Society of Actuaries in Ireland, who are also Fellows of the Institute or Faculty of Actuaries, must maintain their full membership of the UK body. Council is insistent however that whatever solution is arrived at must at least maintain and ideally should enhance the reputation and standing of the actuarial profession in Ireland. In addition it should not inhibit Irish actuaries' existing freedom to practice in other countries, particularly the UK. That freedom already exists within the EU by virtue of Mutual Recognition Agreements with our counterparts in other member states. The Society has also negotiated Mutual Recognition Agreements with a number of non-EU actuarial bodies, including the American Society of Actuaries, the Canadian Institute of Actuaries and the Institute of Actuaries of Australia. We will constantly seek to extend the number of such Mutual Recognition Agreements in future.

We would like to hear members' views on the important issue of our future relationship with the UK profession. This article is one step in the consultation process. The future of that relationship is also a regular item on the agenda for my ongoing meetings with actuaries and students in their places of work. Please call or write to me if you have views on this important issue, or on any other matters of ongoing discussion within the profession.

Colm can be contacted by email (Colm.Fagan@actuaries.ie) or by phone (01-660 3064).

#### Members' Meetings

The President, Colm Fagan, in an email to all members last autumn and also in his Presidential Address, stated that he plans to meet as many members as possible through Members' Meetings. He is anxious to discuss with members any current professional issues within the Society and to hear the views of members on how the profession should move forward. So far, six meetings have taken place.

We will shortly plan a meeting in a city centre location for all members who have not been invited to date. We will also hold a meeting in Cork for members in the south of the country.



### EEV Reporting – the story so far and

Neil Taverner of Watson Wyatt in the UK gave this presentation at a well-attended meeting on Monday, 10th October 2005.

The Chief Financial Officers' (CFO) Forum published the European Embedded Value (EEV) principles in May 2004. 12 companies have made disclosures so far. Determining the risk discount rate (RDR) to use has been the most difficult aspect to date. Analyst reaction to these disclosures is important because the goal of the EEV principles was to provide investors with transparent and consistent information.

#### **EEV Principles**

Neil outlined what the EEV principles are, namely that they are a set of twelve compulsory principles. The principles are underlined by guidance and non-compliance with the guidance must be disclosed. The principles introduced a new term, "covered business". Covered business is long-term business plus anything else you want to include (which must be defined). The principle around required capital and the cost of capital is one of the main areas where compliance diverges. Best estimate economic assumptions should be used and most companies have used similar assumptions to date. Stochastic techniques are required to value financial options and quarantees (FOGs).

A Watson Wyatt survey of Chief Actuaries in August 2004 found that CFO Forum members were generally confident that the principles would enhance transparency and consistency, while others surveyed were predominantly quite sceptical about this.

#### **Financial Options and Guarantees**

Neil went on to outline the methodology for valuing the cost of FOGs. There are several practical issues not covered by the guidance such as the use of option pricing techniques, the use of historical or market-consistent volatilities, how to model policyholder behaviour, allowance for optionality in hedging assets, and the choice of discount rate for each scenario. In the survey mentioned above everyone thought there was scope for different approaches for valuing the cost of FOGs to be used, although opinion was split as to whether the results would differ as a consequence.

#### Allowance for Risk

Risk should be allowed for through the cost of FOGs, the level of liabilities/capital locked in and the RDR, not through margins in the best estimate assumptions. The method for determining the RDR must be disclosed, however guidance for this is limited.

#### Implementation / Impact

The CFO Forum made the deadline for implementation of EEV the end of 2005. There have been varying levels of adoption, with six of the CFO Forum companies having fully adopted EEV at September 2005 and another three having partially adopted it. Companies outside the CFO Forum have also started adopting EEV. Neil mentioned that Irish Life is flying the flag for Ireland by having fully adopted the principles already.

For those companies that are now using EEV, there haven't been significant value adjustments. Neil suggested that there might have been some tweaking of guidance to come up with the answer one expected! Some economic assumptions have been changed. There has been some herding of the equity risk premium at around 3%. The time value of FOGs appears to be smaller than analysts expected, due to equity markets having moved in the right direction and companies reducing their risk, and also due to interpretation of the guidance. There has been a small positive effect on new business margins. The main impact of the "look-through"

expense assumption requirement is pension deficits.

#### Methodology

There are three possible approaches to valuing the cost of FOGs:

- 1.Stochastic projection where the discount rate is fixed and equal to the RDR in each scenario. This is the easiest approach and has been adopted by five companies. However, it is likely to understate the cost, perhaps because it doesn't take account of all risks. Neil suggested that maybe increased discount rates had been used to allow adequately for risks but this would not be in line with the principles.
- 2.Stochastic projection where the discount rate varies in each scenario, as a constant risk margin above the projected risk-free rate. Three companies have adopted this approach.
- 3. Market-consistent approach, which at first sight appears not to be compliant, but deflators can be used instead of a risk-neutral approach. Two companies have adopted this approach. It is the best for meeting the requirement that the cost of FOGs must be at least equal to the time value.

Disclosure on key elements of the calculation has to date been poor, for example, assumed volatilities and correlations of asset classes, and the characteristics of scenario generators. In general, the implementation has not been transparent and comparable across companies.

Various methods have been used for determining the cost of capital, e.g. internal risk based capital model, regulatory capital and economic capital. For most companies the underlying approach has been disclosed but not enough detail has been given to draw sensible conclusions regarding how much risk is actually reflected in the capital



### future developments?

assumptions. Again, the aims of transparency and comparability have not been met.

There are three possible approaches for calculating discount rates:

- 1.Top-down / weighted average cost of capital (WACC). This is easy to understand and communicate, is familiar to analysts and has been adopted by five companies. However, key elements of the calculations are subjective, for example, the determination of a company's "beta" and the fact that the approach is applied at company level, not business unit level.
- Bottom-up / cash flow. Three companies have adopted this approach but its robustness is unproven.
- 3. Calibration of discount rate to achieve market consistency. This is straightforward to understand and has been adopted by three companies (including Irish Life). Allowance must be made for nonmarket risk by adding a risk margin or cost of capital. Neil noted that this approach might not be possible to achieve in all cases.

The allowance for non-financial risk is difficult to ascertain under all three approaches. The approaches adopted are transparent but, as companies have adopted different approaches, comparability is difficult.

#### **Reactions**

In Neil's opinion, analysts were taken in by the hype surrounding EEV and were left very disappointed in terms of transparency and comparability. Some analysts and CFO Forum members are now pushing for market-consistent embedded value (MCEV) to be adopted. However, the industry is probably not yet ready to agree on one consistent approach for MCEV. The advantages of MCEV are the use of market valuations for assets and the prospect of integrated financial reporting. The obstacles are the requirement for a change of

mindset, potentially impacting on products and strategy, and the subjective nature of valuing diversifiable risk. In addition, EEV may provide welcome stability while investors get used to volatile IFRS results; hence there is not much appetite for MCEV in the short term.

#### Future

In September 2005, the CFO Forum listed the ways in which the EEV principles might develop in the future:

- Continued convergence of disclosures and sensitivities;
- Convergence of methodologies for allowing for risk;
- Reconciliation with primary reporting;
- Development of audit standards;
- Extension of covered business.

Neil concluded the presentation and invited questions and comments from the floor.

#### Discussion

Tony Jeffery commented that the time value of options referred to in the principles should really be called option value. He also felt that, although not wonderful, EEV is acceptable and represents a significant advance.

Richard O'Sullivan asked if any non-CFO Forum companies had indicated they would not adopt EEV. Neil thought there would be other companies adopting EEV in time, but compliance at this year-end would be difficult for them and they would see how the approach evolves with this year's disclosures before indicating whether they would adopt the principles or not.

Shane Deighton felt that a lot of effort is required to derive small numbers. Overall results are only 1-2% different from the old EV and therefore may not be worth the effort of calculation.

Bruce Maxwell gave some insight into the Irish Life experience. He noted that it was difficult and time-consuming to determine the RDR and allocate capital. However, the risk-oriented approach was useful because this way of thinking will eventually be needed by all companies in order to comply with Solvency II. He felt that although the new number may not be far away from the old number, EV was losing credibility and some alternative to IFRS was needed.

Sean Casey asked if companies had changed their product pricing as a result of moving to EEV.

Neil said some had and that EEV provided a useful framework for this.

Colm Fagan closed the meeting and thanked Neil for a very "enlightening" presentation.

#### Maria McLaughlin

## Newsletter

### **Capital Management**

On Tuesday, 15th November, Jim Collins and Ian Carey presented an interesting paper entitled "Update on Capital Management for Life Insurers" to a well attended meeting of the Society of Actuaries in the Alexander Hotel.

The paper covered many topical issues, including current developments in Europe in relation to capital management and the implications of these developments; Basel II and raising hybrid capital; the reasons for raising capital and the associated costs; and developments in modelling Economic Capital requirements.

#### **Current Developments**

The current environment in which low margin business, with relatively high capital requirements, is being sold is leading to an increased need for good capital management. The arrival of Solvency II will lead to the need for:

- good risk assessment (under Pillar I) similar to the Individual Capital Assessment (ICA) that currently exists in the UK;
- improved Corporate Governance arrangements, particularly in relation to the validity of capital management proposals, to satisfy bespoke capital assessments that will be performed by regulators (under Pillar II); and
- clear disclosure of the risks inherent in the business (Pillar III).

All this will lead to a realistic assessment of what each company needs to hold in order to meet policyholder liabilities. The new proposals are broadly neutral for unit linked business, but are expected to be somewhat more onerous than current requirements for with-profits business and for business with options and guarantees, and possibly lower for conventional non-profit business. It is expected that the Solvency II rules will be fully implemented by 2010, although,

according to the speakers, this timetable is looking ever more ambitious. Future developments in Capital Management, in particular Solvency II, are set to create a more level playing field for insurers across the EU, although the larger players may gain an advantage over smaller players through the transfer of risk outside the EU.

#### **Basel II and Hybrid Capital**

It is useful for the life insurance industry to look at the capital assessment and management processes that have emerged from Basel II for banks. Capital is ranked in tiers, according to its seniority in the event of wind-up. Tier I represents the types of capital that would be the last to be repaid, for example, equity. Upper Tier II contains subordinated debt, while Lower Tier II contains more senior types of debt. The third grouping ('Other Capital Resources') contains other types of capital such as hybrid capital and other assets not recognised under a statutory balance sheet.

More recently, there has been much more interest in methods of raising hybrid capital. Standard & Poors recently reported that hybrid capital now outweighs equity capital injections in the UK. One method of raising such capital that is attracting a lot of interest is VIF (Value of In-force business) Securitisation.

VIF Securitisation is a complex process, which achieves a similar result to that of Financial Reinsurance (an initial advance with accrued interest repaid over a specified number of years using margins emerging from an in-force block of business). Through the use of Securitisation, a company can gain access to markets where investors require A-level ratings even though the company itself may have an inferior rating. It is expected that VIF Securitisation will become more popular, with some high profile companies in the UK having already engaged in the process (Barclays, Friends Provident and Norwich Union). To date, there have not been

any transactions in the rest of Europe, but in the US there have been several transactions.

There is, however, a downside to Securitisation. In order to ensure that debt can be issued at a reasonable price (by attracting a sufficiently high rating), the issuing company needs to engage in a comprehensive due diligence process. This may be quite time consuming and involve many different parties in order to fully assess the risks and resolve any potential legal problems. Companies may also need to invest heavily in their administration systems, as the quality of data has to be extremely good.

#### The Need to Raise Capital

There are two ways to look at capital: Required Capital and Available or Economic Capital. The Available Capital is roughly equivalent to the Market Consistent Embedded Value of an enterprise. This value together with the Franchise Value gives the value of the company. Insurance companies seek to protect the Franchise Value of their business as otherwise there will be implications for future levels of new business. There is a need for a very high degree of certainty surrounding the adequacy of a company's Available Capital. Optimisation does not equate to Minimisation.

Capital Management has now become equivalent to Risk Management, as all assessments of capital requirements are becoming based on risk levels. Governance is becoming more important as there is a need to understand all aspects of risk. Management of risk levels is of interest to regulators and rating agencies alike.

#### **Assessment of Economic Capital**

The model for assessment of Economic Capital for banks is likely to be of relevance to life insurers as it provides clues to how Economic Capital might be assessed in the future. Assessment models are still at the development stage and there is



now a convergence beginning to occur between the capital assessments of individual banks and the corresponding assessments that are being made by the rating agencies. Instead of looking only at the 1 in 10,000 year event which spells disaster for the bank and trying to assess how to provide for it, banks are more interested in the 1 in 7 or 1 in 20 year event and the effect that such an event would have on its Economic Capital. These are the type of risks that can be more readily managed and reviewed, increased or decreased depending on the bank's appetite for risk. However, there are key differences between the models for banks and life companies such as the existence of new business capital strain. The eventual models for the assessment of life company Economic Capital will need to consider such issues.

#### Discussion

A lively discussion then followed, with a number of interesting points being raised from the floor. Issues relating to VIF Securitisation were of most interest to those in attendance. The speakers concluded that the thought process of examining Economic Capital requirements is a good place for companies to start when trying to understand the risks inherent in their business. Certainly, this is something that companies will have to become comfortable with as Solvency II takes shape.

#### Marie Ryan

#### **Christmas Charity Table Quiz**



We had 31 teams for the annual Table Quiz. Quizmaster, Kevin Manning, did a wonderful job in setting questions to test the actuarial minds but also to tease people with fun but yet awkward questions. If you wanted a spot prize, you had to sing for it! Kevin even succeeded in getting the President, Colm Fagan, to sing Rudolph the Red Nosed Reindeer, before Kevin presented Colm with a chocolate reindeer.

The winning team (pictured here with Colm Fagan) was Brian Murphy, Ray Leonard, Eoghan Burns and Brian Murray. Their chosen charity was The Irish Hospice Foundation. A cheque for €3,150 has been

presented to this charity, whose objective is to support, promote and develop hospice care in Ireland, so that it will be available to everyone who needs it.

Thanks to everyone who supported the quiz and a big thank you to Kevin Manning, our Quizmaster, who has also been our quiz setter for the Newsletter for many years.

#### **Christmas Newsletter Quiz**

The Winner is ..... Piers Segrave-Daly.

If Kevin Manning set some easy questions for the Table Quiz, he certainly made up for it with his Christmas Quiz in the December Newsletter. The following is a report from Kevin on the responses to the Quiz:

Competition was very heated for the Christmas newsletter quiz which rewarded individuality by penalising answers if they were given by other entrants. In coming up with a winner, markers had to deliberate on the thorny issue of whether Rudolph is officially one of Santa's reindeer (he is, albeit not one of the original 8), had to investigate the chart positions of Major Lance hit singles and investigate the authenticity of such musical luminaries as the Bonzo Dog Doo Dah Band.

Over the course of the marking, we discovered that, in trying to be

unique, a startling number of actuaries chose Dushanbe (Tajikistan) as a capital city beginning with D (only two chose Dublin), that Merry Christmas Mr. Lawrence is a very popular Christmas film and that, in the category of a song whose title is in alphabetical order, there was a surprising affection for Don't Leave Me This Way by The Communards.

Some companies seem to have been more taken with the competition than others, and in particular, the standard of entries from Seagrave-Daly & Lynch was very high. The winning entry came from Piers Seagrave-Daly, with Francis Coll of Irish Life narrowly beaten into second place and Brendan Lynch in third. A notable mention goes to Richard O'Sullivan, whose entries proved to be the least unique!

#### **Kevin Manning**



### **National Pensions Review**

With the National Pensions Review Report hot off the press and its recommendations favourably received, interested parties in the profession gathered on 18th January to hear from the consultants who contributed to the Review and to comment on the outcome.

#### **Benefit Options at Retirement**

Philip Shier of Hewitt was the first to speak on Benefit Options at Retirement and Possible State Involvement in Second Pillar Provision.

In considering the first issue, the merits of lump sum, fixed and guaranteed incomes and ARFs were compared. The objectives should be for simple, flexible yet effective and secure provision. No single form of benefit would suit all employees and thereby increase coverage. As a result, the options should be kept flexible. However, more flexible alternatives such as AREs and PRSAs have been available now for some time and have had limited take up. It would seem that financial advice might be the best route for most individuals. However, in reality, will many seek it?

Possible State Involvement in Second Pillar Provision looked specifically at the establishment of a "State Annuity Fund", how it might be run, made available and the potential impact on pension and annuity markets, cost and risks for the Exchequer and any likely advantages and disadvantages.

A State annuity fund providing guaranteed income would provide easy access for many to cheaper annuity prices addressing both social and commercial concerns with the Minimum Funding Standard headache for DB schemes possibly lessened.

The risks, however, are many. Should the scope be limited to either certain circumstances, for example, a DB wind up or a specific type of annuity? Would the State in reality be able to provide cheaper annuities at an efficient cost? In theory, they might be able to adopt less conservative assumptions, adopt lower margins and ignore any reserving requirements. The Department of Finance however, isn't so keen. They dispute that the State can use less conservative assumptions than their insurance company counterparts and additional administration and "expertise" costs would be generated. That said, the Pensions Board and many others in the industry are keen to pursue this one.

#### **Pension Provision in Other Countries**

Paul McMahon of Mercer then gave a brief overview of pension provision in other countries. Generally, overall pension provision resulted in a target replacement ratio of between 60% and 70% in most (European) countries. State provision varies considerably however, from under 30% in Ireland to 60% in countries like Italy and France. Most countries adopt a DB approach to State provision with Chile and Singapore the notable DC exceptions. As would be expected, countries with higher State provision in turn saw lower occupational provision and vice versa.

### Assessment of Different Pension Provision Systems

Dermot Corry and Michael Culligan of Life Strategies gave a presentation on their assessment of alternative pension systems. Jointly undertaken with the ESRI, they were asked to examine a number of different pensions systems, including the present one, taking into account future demographics and economic projections.

The results showed that under the current State system the net cost to the Exchequer would increase from 2.5% in 2006 to 7.0% in 2056 due to the ageing of the workforce, helped in the interim by drawdowns from the National Pensions Reserve Fund (however the Fund is expected to be exhausted by 2070).

Five further alternative systems were considered with varying results for net cost and pensions coverage. The one

alternative (Alternative 4, revalued earnings related State pension, higher rate tax relief for all) which resulted in meeting the NPPI targets for coverage and adequacy resulted in a doubling of current contribution levels (for Pillar 1 and Voluntary Pillar 2) to 26% of earnings and a small net increase to the Exchequer. Enhancing the current system and increasing Pillar 1 provision to 50% gross average industrial earnings (together with higher rate tax relief for all -Alternative 5) also required substantial additional contributions. DC alternatives increased coverage but not adequacy and from a social perspective might be unacceptable.

#### **Overview of Pensions Board's Report**

Paul Kelly finished the evening's presentations with an overview of the Pensions Board's submission. Considering that the 1998 NPPI targets are broadly on course (with coverage the main area where improvement is required), the Board set out a number of key recommendations for immediate implementation. These included higher rate tax relief for all, matching of PRSA contributions and a simplification of the PRSA legislation regime. In addition, incentivised pensions savings should be offered to SSIA holders.

The Board were also supportive of establishing a State Annuity Fund together with steps towards increasing the State retirement age.

Due to the late finish, comments and questions were unusually scarce with one notable exception. Anne Maher extended her (and the Board's) thanks to members of the profession for their valuable contribution to the Pensions Review.

The slides for each of the presentations are available on the Society's website. The National Pensions Review Report is available on the Pensions Board's Website.

**Emer Reid** 

# ewslette

### **Appointments**



Roz Briggs

Roz has worked as a pensions actuary throughout her career (let's just say it's quite a long time now - the 20 year service award has been collected!). Her entry into the actuarial profession followed the old style tradition of school leaver followed by study on the job. Her first employer was the UK based actuarial consultancy firm of Duncan C. Fraser & Company (later to become part of Mercer). Brian Reddin was the senior partner at the time and the actuarial trainees cut their teeth doing "court work" i.e. actuarial assessment of future loss of earnings in injury awards etc.

Having qualified in 1990, Roz's career progressed to actuarial consulting to pension funds and included a couple of years as a specialist in the firm's evolving investment consulting practice. Roz chaired the Society's Investment Sub-Committee at this stage. She was also involved in a number of consulting projects associated with the development of regulation and guidance around the new pensions legislation introduced in the early 1990s.

Following the merger with PIC, Roz moved to Mercer's Cork office in 1995. Her arrival and the recruitment of Alan Buckley as an actuarial

student brought the office size to 6 employees and for several years they were the only consulting actuarial team outside the Pale. It was a fun time and the small office environment meant that Roz was involved in new business chasing and a number of atypical projects (including assessment of subscriptions for a local Golf club, assessment of lifetime pension provision for religious communities and calculation of odds under various Lotto and scratch card offerings for an RTE consumer programme). Nowadays Mercer's Cork office boasts almost 100 employees and includes 10 actuaries and 15 students. Actuarial consulting is still a large part of Roz's job but her role has extended to a broader definition of retirement consultancy which includes client and people management responsibilities.

Roz's appointment to the Board of the Pensions Board comes at an interesting time in the development of Ireland's pension strategy and when pension stories are often in the headlines - usually for the wrong reasons. It will be a challenge but provides Roz with an opportunity to take a slightly different view of the retirement industry and to return to a greater engagement with the activities of the Society and the regulator.



Jimmy Joyce

Jimmy Joyce has been appointed Chairman of the Health Insurance Authority with effect from 1st February 2006 in succession to Professor Alastair Wood.

After a career in the Civil Service ending as Assistant Secretary of the Department of Posts and Telegraphs, Jimmy was Executive Director of Telecom Eireann from 1984 to 1992 and Actuarial Consultant to the Department of Enterprise, Trade and Employment and, subsequently, to the Irish Financial Services Regulatory Authority from 1992 to 2005. Jimmy was President of the Society from 1999 - 2001.



#### Captain's Day

The 2006 Captain, Frank Downey, has announced the date for Captain's Day.

Thursday 27 July 2006 at the Grange Golf Club.

Frank will be writing to all members outlining the Society's golf calendar for 2006.

### The 28th International Congress of Actuaries

The IAA Congress will take place in Paris from 28 May to 2 June 2006. All details, including the brochure, can be downloaded from www.ica2006.com

#### Annual Ball – Saturday 13 May 2006 – Guinness Storehouse

Don't forget to put the Annual Ball in your diary.

A committee has been formed to promote the Ball so we are expecting a great turn out this year. All members, including students, and partners are welcome to attend.

### Press Release issued by the Society on 20 February 2006 following the publication of the Social Welfare Bill

#### **Actuaries Welcome Independent Review of Pensions Work**

The Society of Actuaries in Ireland welcomes a provision included in the Social Welfare Bill published today for actuaries who undertake work for Defined Benefit Pension Schemes to have their work reviewed. Actuarial certification of pension scheme liabilities is of vital importance to the regulation of Defined Benefit Schemes, and it is, therefore, appropriate that this work should be subject to independent review. The Society has worked closely with the Pensions Board and the Department of Social and Family Affairs during the past year on the detail of the proposed structure for such reviews and we are satisfied that the end result represents a balanced approach that is in line with emerging best practice internationally for the actuarial profession as well as for other professions.

#### The New Life Section of the International Actuarial Association

A new Life Section of the IAA has been set up to promote actuarial research and the exchange of knowledge in the field of life insurance around the world. Membership of this section is free for 2006. If you wish to become a member, please contact the Society.

For more information, visit the IAA's website:

www.actuaries.org/LIFE/Documents/Presentation.pdf

#### Belated Congratulations to Ashlin Noonan and Kevin Begley

Ashlin and Kevin (both with Watson Wyatt) qualified in December 2005 from the September exams. Their names were excluded from the list of New Qualifiers in the December issue of the Newsletter. The Society's only means of knowing if members have qualified is by

checking the UK profession's website once results have been announced. However, sometimes the names of new qualifiers are not posted on the UK's website on the night of the results, so, if you do qualify, please contact the Society and let us know.

### On the Move

Fellow Members

Thomas Farrell has moved from Coyle Hamilton Willis to Bank of Ireland Global Markets

Michael Murphy has joined Canada Life from Watson Wyatt

Gareth McQuillan has joined Hibernian from Bank of Ireland Life

Alan Murphy has joined Canada Life from Hibernian Life & Pensions



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