ACTUARIAL SOCIETY 2009 CONVENTION LITE AND THE PENSIONS, HEALTH AND LIFE SEMINARS

PAPERS AND PRESENTATIONS

(listed alphabetically by first author, please see the programme for scheduling details)

The lights are on but no one is at home

Paper by JP Andrew

This paper identifies a widening gap between the way in which actuarial material is being presented to boards of trustees and the capacity of those boards to assimilate the information and take informed decisions. There is a need for interpretation and distillation. Either the actuarial profession must satisfy this need, or the actuary will be relegated to the back-office. The paper sets out some guidelines which may help to bring the actuary back into the decision-making process.

Practice cost study submissions for National Health Reference Price List (NHRPL): methodology and issues

Presentation by Alex Brownlee

The National Health Reference Price List (NHRPL) process aims to provide a standardised tariff structure for private practice. These tariffs are meant to represent benchmark tariffs, useful as a reference in defining benefits and billing in a standardised format.

The Department of Health (DoH) has been calling for submissions to obtain information for the determination and publication of a reference price list. The basic guidelines, as set out under regulation 681 in the Government Gazette, require a zero cost based methodology, whereby practice costs are measured and divided by productive time in order to derive the appropriate tariffs.

After having completed practice cost studies of their constituents, many provider groups have provided submissions to the DoH. The submissions imply increases in tariffs significantly above inflation (with some increases above 300%).

This presentation sets out the current methodology as set out by the DoH and discusses some of the major issues. The sensitivity of the results to various inputs will be presented, including issues related to the critically important allocation of time units which have not been adequately examined and measured in the practice cost surveys.

Investigating private hospital capacity in South Africa

Presentation by Barry Childs

This presentation offers an analysis of the capacity of private hospitals in South Africa with regard to the possible next tier of medical scheme membership. In conducting this analysis, data was obtained from the private hospital sector and analysed for spare capacity taking into account seasonal and geographical variations in bed supply and demand. Demand for bed days of the next tier of medical scheme membership was modelled using Statistics South Africa data. The author aims to show that combining the two data sets allows for an evaluation of capacity constraints in the current private provider market in anticipation of the expansion of the medical scheme population.

The devil is in the detail: technical matters arising from the decision on defined benefit vs defined contribution national pension scheme

Paper by Colin Dutkiewicz, Andrew Gladwin, Stanley Bisho, Roger Birt and Carolyn Clark

Implementation plans for the National Social Security System (NSSS) are still underway and many actuarial modelling exercises are being undertaken in an attempt to gauge the likely effect of the NSSS on the various stakeholders.

The authors of this short technical paper have developed a stochastic asset-liability model to help understand what the trade-offs are between the different systems. This process highlights a number of decision areas that need to be specified. The success of whichever system is used in a country depends on the detail of its implementation, thus these decisions need to be taken consciously with a good understanding of their long-term impact.

Retirement fund reform for dummies

Paper by David Gluckman

This presentation explores the view that the models mooted to date for the NSSS significantly underestimate the cost and complexity of the transition from the current to the proposed dispensation.

The alternative to the proposals set out to date is to reform the existing retirement fund system gradually over many years. This could be achieved by working to improve elements of the existing system in a gradual and more controlled manner aimed at reducing costs and improving value to members. By refining the existing system, the cost and risks associated with transition can be contained very significantly.

Ultimately the aim of this paper is to introduce a practical overlay to what, to date, have been theoretical debates, and to introduce a practical roadmap to accelerate reform in the ultimate best interests of the average working South African.

A brief on the updated medical component of the consumer price index (CPI)

Paper by Patrick Kelly

Earlier this year, Statistics South Africa (Stats SA) released the first official consumer price index (CPI) based on the much-publicised new basket and weights. This presentation outlines the recent updates to the medical component of the CPI. These include medicine prices, medical professional fees and hospitalisation costs. The rationale for the changes as well as the impact of the changes is discussed in detail. The presenter also explores the impact of the changes in CPI in general as well as the various regulatory links between CPI and CPIX.

Managing agency risk in defined contribution retirement funds

Paper by Mickey Lowther and Jonathan Mort

Risk management has been highlighted recently as a wider and promising field for actuaries, who may be able to add value within DC funds as consultant, valuator, trustee, peer reviewer, or even expert witness. Clearly the field is complex and one solution will not fit all. This paper aims to stimulate debate amongst practitioners by contrasting theories of risk management with current practices in member choice DC funds.

Boards of South African retirement funds are urged by PF 130 to put in place a risk management policy. Such policy should prescribe a process of identifying and managing risks to the achievement of the fund's aims. However, it is our experience that some member choice DC funds are going through risk management exercises more relevant to defined benefit funds or entrepreneurial companies. These solutions may be irrelevant to these funds, not understandable to the Board or stakeholders, inconsistent with the purpose of fund governance, and unnecessarily expensive.

The impact of the sequential implementation of complex healthcare financing reforms

Presentation by Heather McLeod and Pieter Grobler

South Africa intends to implement major reforms in the collection and pooling of financing for healthcare. This began with a process of re-regulation, with the reintroduction of open enrolment, community-rating and minimum benefits from January 2000. A system of national health insurance with income cross-subsidies, risk-adjusted payments and mandatory membership was envisaged in policy papers from 1994 onwards. Subsequent work has seen the design of a Risk Equalisation Fund (REF) that will operate between competing private health insurance funds. The REF was also envisaged as the vehicle to distribute the government subsidy for healthcare.

The broad vision for the South African healthcare system is to focus energies primarily on rebuilding the public health sector to the point where it once again becomes the provider of choice for the vast majority of South Africans. This would be achieved by reversing the effects of the GEAR policy, and gradually, but substantially, increasing tax funding for health services, as well as introducing a compulsory National Health Insurance contribution for all formal sector employees (those in paid employment). However as of end February 2009, no details of the proposed National Health Insurance (NHI) system have been publicly released. This paper aims to analyse the various reforms that have been articulated to date.

Defined contribution and age-related risk benefits: the equitable myth

Paper by Neil Parkin and Vivek Moodley

The authors explore group assurance arrangements where benefits are based on age and the resultant issues that arise from these structures. The paper looks at the purpose of such schemes, the processes involved and how they affect the various stakeholders. The authors include an explanation of the decision-making processes used for these schemes and the impact these have on the final benefits to members.

This paper further describes how age-related schemes can be structured and priced and considers the complexities involved when comparing between insurers. Pricing methodologies and benefit design variations may result in members of two different group assurance arrangements having significantly different benefits, even though they share similar risk profiles. This then raises the question: are age-related structures as equitable as they first appear, or has the complexity simply shrouded their true nature?

Long-term sustainability of medical schemes

Presentation by Christoff Raath

Medical schemes are regulated and operated on a pay-as-you-go basis. Statutory solvency is calculated based on a single year's experience at a time with no consideration of the manner in which future contributions and future claims are projected to develop. The medical scheme industry is presently in a phase of consolidation and several amalgamations are expected to occur in the near future. An actuary evaluating the impact of an amalgamation is inherently interested in the long-term impact of the proposed transaction.

The author considers the long-term sustainability of medical schemes under a number of assumption bases that were chosen to be commensurate with the general experience and characteristics of the South African medical scheme industry over the past decade. He then examines the characteristics of a medical scheme capable of funding its future expenditure out of future income, for various demographic and new entrant scenarios.

He proceeds to offer some remarks on the evaluation of long-term sustainability for purposes of amalgamation impact assessments and compares the results to the long-term valuation bases typically used by actuaries in the valuation of employers' post-retirement medical aid liabilities. The author also aims to briefly discuss the regulatory changes that have been proposed over the past few years and the impact these could have on medical schemes' long-term sustainability.

Research on Risk-Based Capital

Paper by Ashleigh Theophanides

The Medical Schemes Act stipulates that a medical scheme is required to hold 25% of retrospective gross contributions over the last year as a reserve. This regulation holds for South African medical schemes and may not consider specific risks inherent in a scheme.

A Risk-Based Capital (RBC) valuation is an alternative measure which aims to incorporate the scheme-specific factors in determining an estimate of a 99.5% reserve for any particular scheme. The author explores a methodology for RBC which is based on a framework used in the General Insurance field. Her analysis is based on more than 20 medical schemes covering about 4 million beneficiaries. The author aims to present a comparison of the measure of the required capital for the combined participating medical schemes in 2009 and compare this measure to the regulated level of capital required.

The arbitrage-free equilibrium pricing of liabilities in an incomplete market: application to a South African retirement fund

Paper by RJ Thomson

In prior work by the author, the method of pricing the liabilities of a financial institution by means of dynamic mean-variance hedging is applied to an incomplete market that is nevertheless in equilibrium with homogeneous expectations. In subsequent work, a long-term equilibrium model is developed and parameterised for the South African market. The aim of this paper is to apply the latter model to the pricing method with a view to quantifying the effects of incompleteness and the sensitivity of the price of illustrative liabilities to the parameters of the model. The application is to retirement fund benefits in the South African market.

In an unpublished application of the pricing method it was found that, except for quite short-term liabilities, the computational demands of the pricing algorithm became excessive. In this article consideration is given to the reduction of the computational demands of the algorithm.

SESSION DESCRIPTIONS

(listed in the order in which they will take place)

Internal Models: Financial Services Board (FSB) feedback on current developments

Presentation by Hantie van Heerden

The presentation aims to give feedback on the insight the FSB gained by visiting insurers who are already in the process of developing economic capital models. The presentation will show areas where insurers treat aspects of the modelling the same or differently, highlight common areas of difficulty and identify areas where more development and guidance (from the profession) may be necessary. It will also highlight the principles which the FSB will follow when considering approval of an internal model for regulatory capital purposes. In addition, several companies who have started developing their own models will comment on the main issues they have encountered and how they have resolved some of these issues.

International Accounting Standards (IAS) developments: update

Presentation by Gary Voss

Update on developments in International Accounting Standards as far as they relate to insurance. The focus will be on what the IASB has been debating and what their plans are for the next year or two.

Market-consistent liabilities

Presentation by David Jewell

Both Solvency II and IFRS Phase II are heading in the direction of calculating liabilities on a market-consistent basis. The presentation will provide an overview of the methodology so that companies can begin to appreciate what would be required to report on this basis.

Market-consistent embedded values

Presentation by David Kirk

The first round of CFO Forum Principles-compliant Market Consistent Embedded Values (MCEV) have just been published. Our presentation will provide a very brief introduction to MCEVs, highlight some of the controversial areas and how European insurers have applied the theory and principles in the calculation of their MCEVs. We also hope to report on the views and opinions of local and European analysts around the new reporting methodology and conclude, with the likely development path for MCEV.

Are market-consistent techniques actually market-consistent?

Presentation by David Jewell and Mark Salmon

This session will focus on looking at the arguments for and against market-consistent techniques, particularly in light of recent experience at 31 December 2008. The speakers will present opposing points of view and the debate will then be opened to the floor.

Lessons from life insurers who have got into difficulty

Presentation by Gary Palser

Each time we have a financial crisis some insurers get into difficulty and some survive. No insurer intentionally gets itself into difficulty, so what is the difference between those insurers who weather the storm and those who do not? What can we learn from those insurers who got into difficulty? What did they miss, with the benefit of hindsight? This presentation will look at some insurers who have got into difficulty in the recent financial crisis, and some that got into difficulty in earlier years, and will seek to identify what we can learn from them.

Enterprise Risk Management in the life insurance industry: panel discussion

Panel discussion with Cobus Fourie, Kallie Kotze, Theo Estie and Anthony Bice

A panel discussion looking at the practical difficulties of entrenching Enterprise Risk Management in the South African insurance industry. The panellists will speak on the top 5 practical tips that have worked for them as well as taking questions from the floor.