# A Firm Foundation for Taking Risk

## SYNOPSIS OF PAPER

#### 6 May 2009

9:15am - 10:00am

Session 1 Tan Kin Lian, previously CEO of NTUC Income

#### Developing a profitable portfolio of motor insurance in Singapore

Mr. Tan Kin Lian was the chief executive officer of NTUC Income from 1977 to 2007. During his tenure, NTUC Income developed the largest market share of motor insurance in Singapore, and achieved profitable results. Mr. Tan will share his experience and knowledge on how the application of actuarial techniques helped to achieve these results. He will specifically cover three phases of development of the business over 20 years:

Phase 1 – efficiency in processing through the use of computer systems

Phase 2 – premium rating based on claims experience according to risk factors

Phase 3 – data analysis to achieve better management of motor claims

10:00am - 10:45am

Session 2 Matthew Maguire, NMG Financial Services Consulting

#### Pricing in an RBC environment - with particular application to Singapore and Malaysia

The aim of this presentation will be to explain the fundamentals of a pricing methodology with reference to return on capital. As the capital calculations become more sophisticated, then the capital can be allocated to a business line and so a target pricing level can be determined. With the introduction of an RBC regime in Singapore and Malaysia, the capital loadings between the different classes of business has been specified and so the first stages of RBC pricing can be applied.

11:00am - 11:45am

Session 3 Hussain Ahmad, Towers Perrin

#### Takaful: concepts and practical issues

The presentation will touch upon the fundamental concepts underlying takaful and what they translate to in practical implementation. It will then move on to discuss the challenges faced by the actuary in dealing with takaful products in areas such as product development and risk management.

11:45am - 12:30pm

Session 4 Mark Shumway, Guy Carpenter

#### Rating agency methodology in Asia

Overview of current rating agency methodology and practice in Asia, including the use of risk-based capital adequacy models and assessment of ERM in planning and decision making. The evolution of ratings methodology has improved the stability and consistency of ratings overall, but considerable room for refinement remains. An examination of several recent rating actions (and non-actions) highlights the relative importance of asset risk management and suggests possible leading indicators of ratings.

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2:00pm - 2:45pm

Session 5 George Attard, Aon Benfield

#### The Evolution of the Propeller Head

The topic would cover the following:

- The evolution of the actuary's role
- · Required skills: communication, listening, negotiation, presentation, management
- The importance of being commercial and acknowledging our limitations
- Adding value to our "clients"

An example: "The Bractuary" - the role of the actuary in a reinsurance broker.

2:45pm - 3:30pm

Session 6 Dr. Jackie Li, NTU Singapore

#### Use of Bootstrapping in stochastic reserving

In this presentation, we discuss a bootstrapping technique to assess the variability in estimating outstanding claims liabilities. Our framework is general in nature and can be adapted to a variety of models, claims data, and selection criteria. It is very flexible and provides actuaries a clear and practical way to deal with different kinds of uncertainty in reserving problems. For illustration purposes, we set forth the numerical results of applying the bootstrapping technique to some claims run-off data.

3:45pm - 4:30pm

Session 7 Jefferson Gibbs & Melissa Yan, KPMG Consulting

#### Contrasting UK, Australian and US reserving practices for non-life insurance

Based on a survey conducted by the UK, Australian institutes and CAS.

4:30pm - 5:15pm

Session 8 Alan Yip, Morgan Stanley

## Asset Management for non-life insurers and reinsurers: the session will cover interest rate, credit and FX risk management for non-life insurers and reinsurers

The session will cover interest rate, credit and FX risk management for non-life insurers/reinsurers. Specific topics will include:

- Interest rate risk management for general insurance companies for which assets have longer duration than liabilities.
- Credit risk management on corporate bond investments
- How to manage credit risk towards reinsurers
- How to manage sovereign risk
- How to manage FX risks in face of uncertainty in claim size and timing

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#### 7 May 2009

9:00am - 9:45am

Session 9 Jim Attwood, Asia Capital Re

#### Adapting BCAR for practical capital allocation in Asia

Best Capital Adequacy Ratio (BCAR) methodology is employed by AM Best as part of their assessment of the financial strength of insurers and reinsurers. It can provide a relatively straight forward and practical base for capital allocation across an extremely diverse Asian insurance and reinsurance landscape. This paper outlines a capital allocation framework that could improve consistency of risk bases decisions.

9:45am - 10:30am

Session 10 Duncan Spooner, Deloitte

#### Solvency II

An introduction to Solvency II overlaid with a perspectives on:

- •Implications of current economic turmoil
- •Interaction with recently introduced RBC frameworks in Asia Application to smaller insurers.

11:00am – 11:45am

Session 11 William Southwell, Watson Wyatt

## The global economic and financial crisis: implications for financial modelling and the need for efficient use of capital

The global financial crisis has forced many of the world's leading financial organizations to retrench, recapitalize and rethink their global strategies. Insurance companies, although not as affected as banks, have not come out of this unscathed and the worst may still be to come.

- Enterprise Risk Management may be something that has been talked about for some time but is now the time to act rather than talk?
- Are we aware of the risks effecting our organizations? Can we model these risks and how do we quantify their potential effects?
- To what extent can these risks be mitigated?
- And finally, how can we use our models to optimize the use of increasingly limited capital resources? In this discussion we will attempt to answer these questions and look at the important role that capital modeling and solid risk management practises have in shaping organizations in the aftermath of the GFC.

11:45am - 12:30pm

Session 12 Jeremy Wall, JPWALL Consulting

#### Dealing with depression through focus, innovation and understanding

The importance of focus on quality, value added services making sure that the use of innovation is applied to improve quality of service and reduce costs as well as making sure the recipients of advice/service understand and can apply it.

How reinsurers, reinsurance brokers, consultants and academia can work together (or separately on relevant areas of focus) to assist direct insurers and insurance industry at large in the inevitable challenging times ahead.