

To: 14th EAAC

Date: 27 July

From: Richard English, Daisy Ning

Copies:

Presentation of paper at the 14th EAAC

This memo sets out the speakers, title and abstract of the presentation we would like to give at the 14th EAAC. We also provide biographies for the speakers.

1 Speakers

The speakers for this presentation will be

- Richard English and
- Daisy Ning

2 Title

The title of our presentation is as follows

“Using your Asset-Liability Management model to manage capital and risk”.

3 Abstract

The presentation takes us through a fairly theoretical look at examples of how we can use ALM models as well as types of capital and some ideas for measuring risk. We then go through some practical model design issues and conclude with a worked example based on a Taiwanese interest sensitive block of business.

3.1 Uses of ALM model

We discuss the main uses of an Asset-Liability Management model and consider the main regulatory and corporate drivers for applying ALM techniques

3.2 What is capital?

We discuss different definitions of capital and consider regulatory requirements and more recent developments in realistic or economic capital. We look at some international developments in regulatory capital, in particular the proposed Solvency II regime in Europe.

3.3 Risks and how to measure them

We describe the different risks that an insurance company is subject and discuss how they can be quantified. In particular we distinguish between Value at Risk and Tail Value at Risk.

3.4 Model design

There are a range of practical issues that need to be considered when building an ALM model. We give examples of dynamic links and asset buy/sell rules that can be implemented and discuss some of the practical challenges that face ALM model builders and users.

3.5 Key performance indicators from ALM

We link back to the uses of an ALM model and give examples of KPIs in the context of those uses.

3.6 Case study

We perform a stochastic analysis on a Taiwanese participating endowment using an economic scenario file calibrated to the Taiwanese economy. We derive Risk-Based Capital for the business and compare that with a percentile based capital requirement from our stochastic result. We also show the impact of making a simple adjustment to the asset allocation strategy.

4 Speaker Biographies



Daisy Ning

Daisy Ning joined Watson Wyatt Insurance and Financial Services Practice in Hong Kong in 2005 as a Consulting Actuary.

Daisy began her actuarial career with Swiss Reinsurance Company in Hong Kong. During her five years with Swiss Re, Daisy was on secondment to Fox-Pitt, Kelton (a subsidiary of Swiss Re) in Hong Kong as an equity analyst for the insurance market, and subsequently transferred to Swiss Re's New York office, mainly responsible for marketing financial reinsurance transactions. When her New York assignment was finished, Daisy returned to Hong Kong as a Client Manager & Actuary to assist Swiss Re's clients in putting reinsurance structures in place and offering capital management advice through conducting reinsurance reviews.

Daisy's employment prior to Watson Wyatt was as Marketing Actuary with Sun Life Financial's Asia regional office where she played a prominent role on product development and pricing for Sun Life's offices around Asia.

Since joining Watson Wyatt, Daisy has been involved in numerous mergers and acquisitions, appraisal/embedded value, bancassurance business planning, strategy review and market research, product development and pricing projects for global and domestic insurance companies in Asia Pacific.

Daisy graduated on the Dean's Honour's List from the University of Waterloo with a Bachelor of Mathematics degree, double major in Actuarial Science and Statistics. She obtained her Fellowship with the Society of Actuaries in 2003.

Daisy is fluent in English, Cantonese and Mandarin.

Richard English



Richard joined the Watson Wyatt Insurance & Financial Services Practice in Reigate in September 2001 and is currently on secondment to the Hong Kong office. He graduated from Nottingham University with a first class honours degree in Mathematics with Engineering. Richard qualified as a Fellow of the Institute of Actuaries in 2004.

Richard has been involved in a range of UK financial management projects, mostly statutory reporting within the recent realistic regime introduced in the UK.

As a member of our Risk and Value Team Richard has experience of many aspects of our work in this area. His particular areas of interest are Asset-Liability Modelling and MCEV, but he has also worked on European Embedded Value, economic capital, hedging, Solvency II and market consistent pricing. His ALM experience covers the UK, Europe and Asia-Pacific.

In late 2004, Richard spent 6 months working in our Munich office in Germany where he transferred the knowledge gained from the introduction of the new realistic reporting regime in the UK to the German team, and helped establish the office which was relatively new at the time. He was also a member of the team that designed and built our standard code within *VIPitech*, Watson Wyatt's proprietary actuarial software.

In early 2006 Richard was the project manager on a regional MCEV implementation for a major European multi national. His activities on the project included the overall design and scoping of the *VIPitech* model, project management of the initial build phase, and writing and delivering parts of the market consistent training program that was created as a part of the project.

Richard is currently leading Watson Wyatt's risk and value management initiatives in Asia and is working on a large appraisal value project in Korea.