



## SYNOPSIS

### **ACTUARIAL SYSTEMS: WHAT LIES AHEAD?**

*Ting Fang Lim, Peter Baker, Magnolia Aspiras*

**Key words:** Future actuarial systems, Prophet, Future needs and requirements, Future regulations

**Purpose of your paper:** The purpose of the presentation is to explore the future of actuarial systems driven by both regulatory change as well as the business need to improve efficiency.

**Synopsis:** *This presentation will compare current actuarial systems to potential future state systems companies use, focusing on life insurance companies in Australia. The aim is to understand key gaps and how they can be bridged, and to identify common issues that users encounter in getting there. We also review the needs of recent and upcoming regulatory changes (such as stress testing, IFRS4 and 9) and explore how these might impact the design of the future actuarial system. The presentation will also consider some of the operational aspects of making changes to actuarial systems – such as the cost versus benefits of enhancing actuarial systems, and the role of technological developments and offshoring.*



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### INVESTMENT PERFORMANCE ATTRIBUTION LINKING – A SOLUTION THAT ADDS UP OVER TIME

*Martin Hickling*

**Key words:** investment, performance measurement, attribution, geometric transformation, linking

**Purpose of your paper:** To develop a solution to the problem of linking investment performance attributions over time that can more accurately describe to Investors and Trustees the component parts of the performance from their investment portfolio. If adopted, this solution should provide for improved investment decision making by its users. It should also provide for a more intuitive output which can be used to explain to investors and Trustees the components of investment performance.

**Synopsis:** This paper develops a solution to the problem of linking of investment performance attributions over time. Over the past 15-20 years, investment practitioners have developed various solutions to this problem, but it is the author's contention that the prominent linking methodologies of Frongello, Cariño, and Menchero are approximations that can provide incorrect results. Each of these linking methodologies takes the approach of directly modifying the attribution parameters in an effort to reallocate the interaction-term or 'residual' created by the compounding returns over time. This paper takes a different approach. Instead, the weights and the returns are transformed to recalculate the attributions in each period  $T_2$  to  $T_n$ . This approach removes the so called 'residual'. The solution outlined in this paper calculates attributions that can then be arithmetically summed to derive accurate multi-period attribution results.



## SYNOPSIS

### MANAGING THE CONSUMER'S INVESTMENT RISK

*Sean McGing*

**Key words:** Investment, risk, opportunity, consumer, goals, risk appetite, ethical, sustainable, asset liability matching, behavioural economics, fees, superannuation.

**Purpose of your paper:** This presentation focuses on identifying and managing investment risk from the perspective of the consumer rather than the professional investment manager or investing financial institution.

**Synopsis:** Seven years on from the Global Financial Crisis the global investment landscape is fraught with uncertainty. Interest rates remain at historical lows, asset values reflect expectations that interest rates are going to be "lower for longer", China's growth rate is reducing and demand for commodities and energy have reduced - slashing prices. Volatility spikes and eases off in unpredictable cycles. Long term expectations for investment returns have decreased.

In this environment, the challenges in understanding investment risk, mitigating it and taking investment opportunities for the professional investor are big. What hope is there for the consumer trying to do the same? And how does the trustee or institution acting on behalf of the investor manage the investment risk of their multitude of different client consumers?

This presentation focuses on identifying and managing investment risk from the perspective of the consumer rather than the professional investment manager.

It provides a wider and different perspective to investment risk beyond the usual risk around volatility of asset values. It aims to increase awareness of the care that needs to be taken by those charged with managing others' money to understand and align with the needs and underlying risk appetite of the ultimate consumer including members of superannuation funds.

In the presentation, we consider, inter alia:

- The investment goals of the consumer
- Investment risk identification and understanding; addressing this risk– taking opportunities, mitigating risks
- Investment advice
- Active vs passive investment including cost vs benefit
- Loss aversion vs risk aversion and other human behaviour
- Ethical and sustainable investment risks

Based on our considerations, we draw a number of conclusions and make related recommendations, with the aim not least of promoting a healthy discussion on improving the end position of investment consumers, which is most people.