

## Actuarial & Insurance Solutions

### Modeling Capabilities

### Pricing, Regulatory, Scenarios



Life reinsurers are uniquely positioned to create significant value from well designed, built, tested and maintained model environments and processes

#### Background

Off the back of recent waves of regulatory change, a dynamic capital environment and increased expectations from stakeholders for clear and visible reporting from a number of perspectives, it has never been more important to have a well-designed, built and tested actuarial modelling engine.

(Re)insurers expect their implemented valuation solution to seamlessly integrate pricing, reserving, and modeling in an automated and controlled environment while delivering optimal efficiency and run time performance. In addition, the valuation model should be well integrated into a company's risk governance framework and control environment.

The choice of solution is often driven by a variety of factors which include:

- Synergies with existing data, actuarial modelling and expertise
- Complexity of products and valuation methodology decided upon
- Reporting standards being considered
- Company needs and business requirements and uses for actuarial valuations
- Cost and resourcing

#### How Deloitte can help

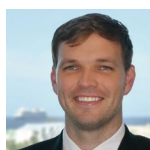
At Deloitte we have hands-on experience in helping reinsurers take advantage of the benefits of well designed, built, tested and maintained Actuarial software. This is experience is across a range of software solutions, which gives us an understanding of the relative merits of each solution and how they integrate with the rest of the processes that exist within a reinsurer. Leveraging on the partnerships we have with software providers we work closely with their team to stay on top of the latest developments so that we remain on the cutting edge of best practice. Our Actuarial & Insurance solutions team has the experience and modelling capabilities to assist companies with model conversions, model building for new product lines/deals, model validation, model documentation, model maintenance and optimization.

#### Key Considerations of Using Actuarial Software

**Integrated Asset and Liability Modeling** – For most product sets, the actuarial solution should have the capability to model both assets and liabilities simultaneously. The solution should also be able to model different insurance products natively with minimal customization and explicitly handle asset investment and reinvestment within its projections. By integrating multiple product lines, assets, and reinvestment strategies in a single model, the solution would allow for dynamic modeling of assets and liabilities and a unified approach to asset-liability management.

**Flexibility** – The actuarial software should give reinsurers the flexibility to run a wide range of user-defined scenarios, in addition to any regulatory prescribed scenarios. This allows (re)insurers to align their analysis with an internal view of key risks and better support decision-making. With a well-built model, projections across a variety of scenarios can be executed simultaneously, with reports generated at the click of a button, streamlining analysis.

**Need for Customized Coding** – Well-developed actuarial software should require minimal coding, while delivering a faster and more advanced solution for insurers. This can significantly reduce model maintenance and staff training costs, while enhancing overall efficiency and risk governance.



**Lloyd Balshaw**

Director,  
Caribbean & Bermuda Region  
+1 345 743 6448  
[lbalslaw@deloitte.com](mailto:lbalslaw@deloitte.com)



**Clayton Chuah**

Director  
Caribbean & Bermuda Region  
+1 441 299 1372  
[Clayton.Chuah@Deloitte.com](mailto:Clayton.Chuah@Deloitte.com)