

Client Situation

- Mutual insurance company selling hospitalization (medical expense) products
- Mono-liner operating in a complex Line of Business: increase of competition with insurance companies, Verwilghen law, uncertainties wrt medical index,...
- Complex multi-state model for Best Estimate and SCR computation

Issues

- Regulatory requirements with respect to actuarial function cannot be completed internally by lack of resource/experience
- Necessity for the actuarial function to have an extensive experience /knowledge in health insurance business to challenge the actuarial department
- Few challenges of the internal actuarial department by the management team or Board



	Checks performed	Conclusion of checks	Additional questions
IBNR Coefficient	Sheet ibnr: • Recalculation of the IBNR coefficient Sheet controle_IBNR: • IBNR coefficients calibrated over the last 4 years have been put into a graph	• The IBNR coefficient and the underlying steps can be reconciled • The evolution of the calibrated IBNR coefficients can be considered as stable	/
Development Coefficient	Sheet coef_dev: • Recalculation of the development coefficient Sheet controle_dev: • Development coefficients calibrated over the last 4 years have been put into a graph	• The development coefficient and the underlying steps can be reconciled • The evolution of the calibrated development coefficients can be considered as stable	?

Type of triangle	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Annual Revenue	550.482	1.033.811	1.826	4.245.448	40.789	3.247	70.789	11.227	2.000	
		2.048.878			6.205.408	11.300.000	1.020.816	342.78		
						7.651.721	1.738.750	158.447	16.421	
							84.12.812	2.047.483	154.542	
								11.927.287	2.254.958	24.381.287

Reacfin Contribution

- Definition of tests and checks to be performed on a yearly basis
- Realization of controls on the calibration, results and tests performed by the company
- Development of testing/replication files in order to gain more confidence on the results produced by the models
- Redaction of detailed report for the yearly Solvency 1 and Solvency 2 advices

Results & Benefits

- Implementation of a proactive review process where the actuarial function is involved at each step of the computation process (data, calibration, results, and testing)
- Quick findings of errors and challenge for improvements that have allowed to refine the parameters and improve the confidence in the final results