

P&C Risk Management – Evolution

Non-Life Insurance : P&C

Level of Intervention

- Consulting
- Expertise
- Project Management

Tools & programming

- Excel
- R, R Shiny
- Harp (internal tool)

Context & issues

One of our client's main requests was to produce Solvency II risk metrics for the non-life branch of the CLP (Credit Life Protection) portfolio, specifically reserve, portfolio and claims risk metrics. This portfolio is segmented into two benefits: IU (Involuntary Unemployment) and GAP (Guaranteed Asset Protection). Other requests included the estimation of implicit inflation within reserves by line of business (LoB), the assessment and integration of a correlation matrix per LoB, as well as providing a second opinion on reserves from both best estimate and disclosure perspectives. Meeting these demands required a strong combination of actuarial expertise, P&C risk modelling skills, and effective coordination with cross-functional teams, including risk managers, accountants, and reserving actuaries from both group and local entities.

Detail of the intervention & realisations

- Simplify the process by optimising and improving the data extraction R code,
- Advice on scopes to include/exclude from the portfolio based on analysis, descriptive statistics and scenario testing established on the results of the extracted data,
- Creation of a replicating tool of our client's internal tool which calibrates P&C risk metrics,
- Documentation of the process of SCR calculation, including model assumptions, methodologies, and results.

Ad-hoc studies:

- Second opinion on reserves: IBNR computation audit for both long and short tail LoBs, claims patterns homogeneity assessment, special focus directed towards modelling long tail LoBs specifically construction due to its decade-long specificity
- Estimation of implicit inflation within reserves by lines of business (LoB): sector-specific index tailored to each LoB to track inflation trends
- Estimation of a correlation matrix for each LoB and integration into the internal model: We recommended specific statistical methods to validate the correlation matrix within the internal model. We suggested to integrate specific statistical techniques, to optimize data construction methods and to ensure controlling processes. It was designed to meet risk management requirements with precision and rigor.
- Follow on support: previous estimations refinement, processes adjustment and optimisation in line with market developments and regulations, continuous support