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Simulation based claims reserving in general insurance

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Abstract

The aim of the present paper is to describe a simulation based "Best Estimate" reserving method for general insurance for which it is possible to obtain a coherrent Solvency Capital Requirement (SCR) and Risk Margin (RM) under the Solvency II directive. This method is based on claim-level data and the idea that one can combine policy information with the claims database in order to make more efficient use of data. An important component in this reserving method is the modelling of the underlying time lines of all policies together with making the distinction between policies being Incurred But Not Reported (IBNR), Reported But Not Settled (RBNS) and Settled (S). The reserving method is described in terms of a simple algorithm.

Keywords: claim-level data, best estimate reserve, reserve risk, stochastic cash flows, Monte Carlo simulation, Solvency II