ChainLadder: Reserving insurance claims with R

Markus Gesmann

Libero Ventures Ltd
markus.gesmann@libero.uk.com

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Abstract

One of the biggest liability items on an insurance company's balance sheet is the reserves for future claims payments. This reserve is an estimate of the amount an insurance company expects to pay for reported and unreported claims. Based on historical incurred claims and payment patterns, methods have been developed to forecast future payments.

The *ChainLadder* package provides the Mack-chain-ladder and Munich-chain-ladder methods to estimate reserves. The implementation in R allows both methods to be seen in a linear model context and therefore makes heavy use of the `lm` function in R.

The *ChainLadder* package grew out of presentations the author gave at the *Stochastic reserving and modelling seminar, 29 - 30 November 2007 at the Institute of Actuaries*.

Keywords: Claims reserving, Mack-chain-ladder, Munich-chain-ladder, linear models