ChainLadder: Reserving insurance claims with R

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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.

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