Individual loss reserving with piecewise constant hazard rates

Shuhua Zhang[*]

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Abstract

The purpose of this thesis is to evaluate the application of the piecewise constant hazard rates in predicting reserves in general insurance. Two types of datasets which include only reported claims are simulated and studied separately. Three types of events are distinguished during the development of a claim. The piecewise constant hazard rates are estimated by maximum likelihood theory. As a comparison, a method for smoothing piecewise constant rates is analyzed. The result shows that piecewise constant hazard rates obtained directly from maximum likelihood estimation perform excellently. They give a remarkable fit for predicting future payments of the Reported But Not Settled (RBNS) claims. The estimators obtained from by applying the smoothning method are not suitable to predict reserves.

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[*]Postal address: Mathematical Statistics, Stockholm University, SE-106 91, Sweden. E-mail: navalniteflora@gmail.com. Supervisor: Mathias Lindholm.