

Comparison of a Simple Bayesian Reserving Model with Traditional Methods

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Abstract: There is a large literature on claims reserving. The available methods range from the simple deterministic ones to the very sophisticated stochastic. Stochastic or statistical models allow the actuary to estimate future claims along with some measure of their uncertainty, such as the variance. The more advanced methods will provide, in addition, the complete distribution or some quantiles. However most of the stochastic models are too complex and end up being a black box for practitioners. They also tend to be over parameterized, which has the effect that they tend to model historical observations very accurately, but they do not necessarily perform well when predicting future claims. In this paper we apply a Bayesian method that was developed for forecasting very short series with stable (seasonal) patterns. It is constructed on basic Bayesian concepts and leads to very simple prediction formulas. Then we compare it with several other methods as to their predictive effectiveness. In so doing, we depart from the traditional 'triangle-shaped' framework for development data.