ON THE IMPORTANCE OF DISPERSION MODELLING FOR CLAIMS RESERVING: APPLICATION OF THE DOUBLE GLM THEORY

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Abstract

The claims reserves analysis is performed using a Tweedie distribution. Since the aggregate cost per cell of a run-off triangle is generated by a compound distribution, we show that modelling of the variance is important. Dispersion modelling, as well as double GLM theory are not only used to predict the total amount of reserves, but also the mean square error of prediction of the reserves. A numerical illustration, based on a real run-off triangle, is included to support this discussion.

Keywords

Claims Reserving, Run-off Triangles, Dispersion Models, Double GLM, Tweedie Distribution.