

Tail methods in Rapp

2009-09-02

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C_{ij} = increment for claim period i and development period j

$\hat{C}_{ij}$ = prediction of C_{ij} for future j after the triangle, ie tail

$V_i = \sum_j C_{ij}$ increment sum over certain chosen j in the triangle

A. Algebraic - p is chosen or estimated with least squares, α, β, q are estimated with least squares

$$\hat{C}_{ij} = \frac{\alpha V_i}{1 + q(j + \beta)^p}$$

E. Exponential - β, λ are estimated with least squares

$$(\text{Development factor})_j = 1 + \beta e^{-\lambda j}$$

G. Geometric - α, q are estimated with least squares

$$\hat{C}_{ij} = \alpha V_i q^j$$

W. Weibull - α, β, q are estimated with least squares

$$\hat{C}_{ij} = \alpha V_i j^{\beta-1} q^{j^\beta}$$