

Modeling of relational claim exceedances for two portfolios

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Abstract

Largest claims in an actuarial risk process are of special importance for the actuarial decision making about several issues like insurance coverages, premiums and solvency capital requirements. This paper presents a modeling about the claim occurrences in an insurance portfolio that exceed the largest claim of another portfolio providing the same sort of insurance coverages. Two cases are taken under consideration: Independent and identically distributed claims and exchangeable dependent claims. Copulas are used to model the dependence situations. Several theorems and examples are provided for the distributional properties and expected values of critical quantities.

Key words: Largest claim size; Order statistics; Renewal process; Copulas.

Main References

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