

EQUITY and CREDIBILITY

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Abstract

This paper builds on previous work concerned with measuring equity, and considers the problem of using observed claim data or other information to arrive at premiums which maximize equity. When these optimal premiums are used, it is shown that gathering more information or refining the risk classification must always increase equity. The case where the premium is constrained to be an affine function of the claim data is studied, and results analogous to classical credibility theory are obtained, including the inhomogeneous and homogeneous cases of the Bühlmann- Straub model. Formulas for credibility weights are derived in certain cases and sufficient conditions for exact credibility are given.

