Risk Measurement Based on Available Information

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Abstract

It is obvious that an accurate risk measurement should take full advantage of available information. In this work, we focus on the measurement of a risk variable associated with a few other risk variables, interpreted for example as risk factors, which are exactly or partially known. Such a consideration is able to unify a few important topics in actuarial science. After a discussion on modeling multivariate extreme risks in the presence of asymptotic (in)dependence, we derive asymptotic formulas for this conditional measurement.