Distortion risk measures for sums of dependent losses

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Abstract

We discuss two distinct approaches, for distorting risk measures of sums of dependent random variables, which preserve the property of coherence. The first, based on distorted expectations, operates on the survival function of the sum. The second, simultaneously applies the distortion on the survival function of the sum and the dependence structure of risks, represented by copulas. Our goal is to propose risk measures that take into account the fluctuations of losses and possible correlations between risk components.

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