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Sensitivity Analysis of VaR Expected Shortfall for Portfolios Under Netting Agreements

Authors:

Jean-David FERMANIAN - CDC Ixis Capital Markets and CREST
Olivier SCAILLET - HEC Genève and FAME, Université de Genève

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Abstract:

In this paper, we characterize explicitly the first derivative of the Value at Risk and the Expected Shortfall with respect to portfolio allocation when netting between positions exists. As a particular case, we examine a simple Gaussian example in order to illustrate the impact of netting agreements in credit risk management. We further provide nonparametric estimators for sensitivities and derive their asymptotic distributions. An empirical application on a typical banking portfolio is finally provided.