1. Record Nr. UNINA9910254185603321 Autore Chaudhuri Arindam Titolo Quantitative Modeling of Operational Risk in Finance and Banking Using Possibility Theory / / by Arindam Chaudhuri, Soumya K. Ghosh Cham: .: Springer International Publishing: .: Imprint: Springer. . Pubbl/distr/stampa 2016 **ISBN** 3-319-26039-1 Edizione [1st ed. 2016.] Descrizione fisica 1 online resource (XVI, 190 p. 65 illus., 53 illus. in color.) Collana Studies in Fuzziness and Soft Computing, , 1434-9922;; 331 Disciplina 658.155 Soggetti Computational complexity Statistics Operations research **Decision making** Economics, Mathematical Complexity Statistics for Business, Management, Economics, Finance, Insurance Operations Research/Decision Theory Quantitative Finance Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Bibliographic Level Mode of Issuance: Monograph Note generali Sommario/riassunto This book offers a comprehensive guide to the modelling of operational risk using possibility theory. It provides a set of methods for measuring operational risks under a certain degree of vagueness and impreciseness, as encountered in real-life data. It shows how possibility theory and indeterminate uncertainty-encompassing degrees of belief can be applied in analysing the risk function, and describes the parametric q-and-h distribution associated with extreme value theory as an interesting candidate in this regard. The book offers

a complete assessment of fuzzy methods for determining both value at risk (VaR) and subjective value at risk (SVaR), together with a stability estimation of VaR and SVaR. Based on the simulation studies and case

studies reported on here, the possibilistic quantification of risk

performs consistently better than the probabilistic model. Risk is evaluated by integrating two fuzzy techniques: the fuzzy analytic hierarchy process and the fuzzy extension of techniques for order preference by similarity to the ideal solution. Because of its specialized content, it is primarily intended for postgraduates and researchers with a basic knowledge of algebra and calculus, and can be used as reference guide for research-level courses on fuzzy sets, possibility theory and mathematical finance. The book also offers a useful source of information for banking and finance professionals investigating different risk-related aspects.