Risk-Sensitive Investment Management: Volume 19 (Advanced Series on Statistical Science and Applied Probability)

Mark H A Davis, S??bastien Lleo
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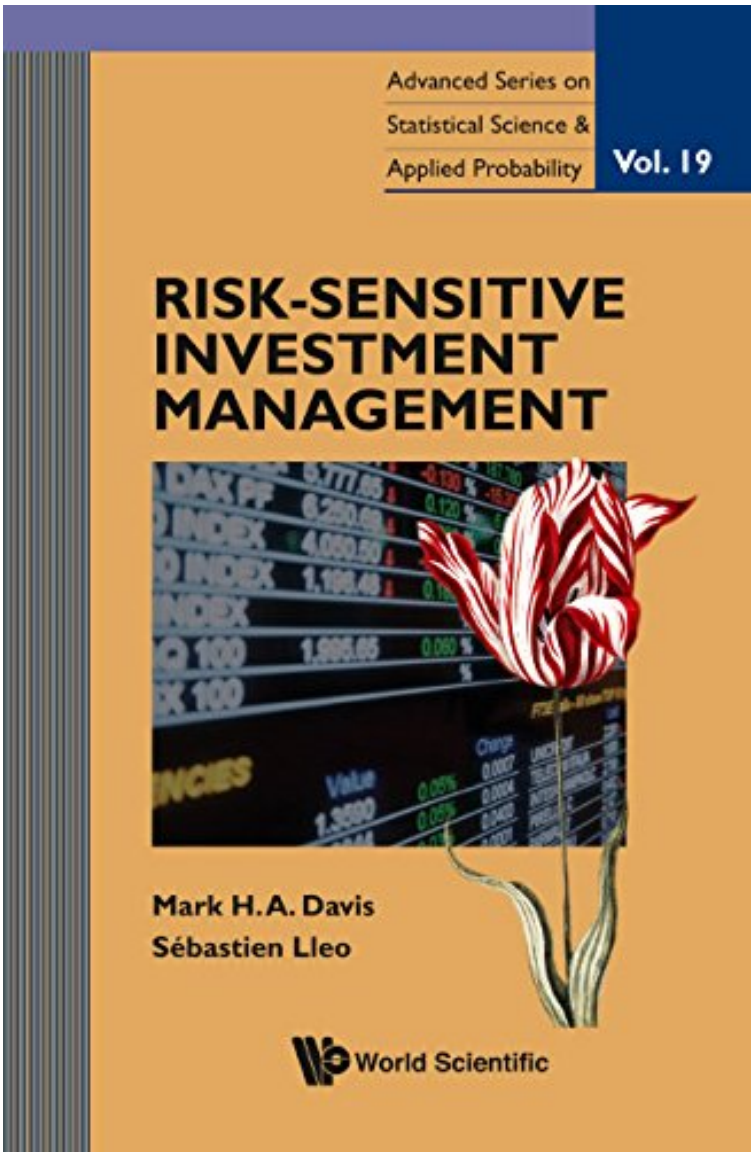

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Mark H A Davis, S??bastien Lleo : Risk-Sensitive Investment Management: Volume 19 (Advanced Series on Statistical Science and Applied Probability) before purchasing it in order to gage whether or not it would be worth my time, and all praised Risk-Sensitive Investment Management: Volume 19 (Advanced Series on Statistical Science

and Applied Probability):

Over the last two decades, risk-sensitive control has evolved into an innovative and successful framework for solving dynamically a wide range of practical investment management problems.This book shows how to use risk-sensitive investment management to manage portfolios against an investment benchmark, with constraints, and with assets and liabilities. It also addresses model implementation issues in parameter estimation and numerical methods. Most importantly, it shows how to integrate jump-diffusion processes which are crucial to model market crashes.With its emphasis on the interconnection between mathematical techniques and real-world problems, this book will be of interest to both academic researchers and money managers. Risk-sensitive investment management links stochastic control and portfolio management. Because of its distinct emphasis on integrating advanced theoretical concepts into practical dynamic investment management tools, this book stands out from the existing literature in fundamental ways. It goes beyond mainstream research in portfolio management in a traditional static setting. The theoretical developments build on contemporary research in stochastic control theory, but are informed throughout by the need to construct an effective and practical framework for dynamic portfolio management.This book fills a gap in the literature by connecting mathematical techniques with the real world of investment management. Readers seeking to solve key problems such as benchmarked asset management or asset and liability management will certainly find it useful.Contents:Diffusion Models:The Merton ProblemRisk-Sensitive Asset ManagementManaging Against a BenchmarkAsset and Liability ManagementInvestment ConstraintsInfinite Horizon ProblemsJump-Diffusion Models:Jumps in Asset PricesGeneral Jump-Diffusion SettingFund Separation and Fractional Kelly StrategiesManaging Against a Benchmark: Jump-Diffusion CaseAsset and Liability Management: Jump-Diffusion CaseImplementation:Factor and Securities ModelsCase StudiesNumerical MethodsFactor Estimation: Filtering and Black-LittermanReadership: Professionals, researchers, academics and graduate students in the field of investment management, stochastic optimization, stochastic analysis and probability, and quantitative finance.Key Features:Integrates advanced theoretical concepts into practical dynamic investmentDiscusses practical issues that will be relevant to practitioners, including parameter estimation, investment benchmarks, asset and liabilities management (ALM), investment constraints, and the Kelly criterionPresents a thorough treatment of jump diffusion models, including latest developments regarding classical solutions to jump diffusion control problemsWritten by professors with extensive experience on risk sensitive asset management and the relevant financial industry experience

From the Inside FlapOver the last two decades, risk-sensitive control has evolved into an innovative and successful framework for solving dynamically a wide range of practical investment management problems. This book shows how to use risk-sensitive investment management to manage portfolios against an investment benchmark, with constraints, and with assets and liabilities. It also addresses model implementation issues in parameter estimation and numerical methods. Most importantly, it shows how to integrate jump-diffusion processes which are crucial to model market crashes. With its emphasis on the interconnection between mathematical techniques and real-world problems, this book will be of interest to both academic researchers and money managers. Risk-sensitive investment management links stochastic control and portfolio management. Because of its distinct emphasis on integrating advanced theoretical concepts into practical dynamic investment management tools, this book stands out from the existing literature in fundamental ways. It goes beyond mainstream research in portfolio management in a traditional static setting. The theoretical developments build on contemporary research in stochastic control theory, but are informed throughout by the need to construct an effective and practical framework for dynamic portfolio management. This book fills a gap in the literature by connecting mathematical techniques with the real world of investment management. Readers seeking to solve key problems such as benchmarked asset management or asset and liability management will certainly find it useful.About the AuthorMark Davis is Distinguished Research Fellow in the Department of Mathematics at Imperial College London. He is also Quantitative Research Adviser to Hanover Square Capital (UK) Ltd, in connection with India-related investment funds. From 2000ndash;2009, he was Professor and Head of the Mathematical Finance group at Imperial College. His research concentrates on stochastic analysis, control theory and financial mathematics; current topics include modelling stochastic volatility, model-free arbitrage bounds on the value of derivative securities, and foundations of risk management. From 1995ndash;1999, he was Head of Research and Product Development at the investment bank Tokyo-Mitsubishi International (now Mitsubishi UFJ Securities International plc), leading a front-office group providing pricing models and risk analysis for fixed-income, equity and credit-related products. Dr Davis holds a PhD in electrical engineering and computer science from the University of California, Berkeley and a ScD in mathematics from Cambridge University. He is the author of five previous books on stochastic analysis, optimisation and finance, the most recent one being Louis Bachelier's Theory of Speculation (Princeton University Press, 2006), written with Alison Etheridge. He was Editor-in-Chief of the journal Stochastics (1977ndash;1994), and founding co-editor of the journal Mathematical Finance (1990ndash;1993). He was awarded the Naylor Prize in Applied

Mathematics by the London Mathematical Society in 2002. Seacute;bastien Lleo is Associate Professor in the Finance Department at NEOMA Business School in France and a tutor on the Certificate in Quantitative Finance (CQF) at Fitch Learning in the UK. He currently serves as Director of NEOMA's doctoral programs. He is also the lead researcher on the RISK PEFORM project, jointly funded by Reacute;gion Champagne Ardennes and the European Union, a co-Director of the GARP University Chapter at NEOMA Business School and serves on the Steering Committee of the CQF Institute. Seacute;bastien was previously Research Associate at Imperial College London in the UK, worked for seven years in the investment industry in Canada and consulted on risk management and asset allocation projects in Canada and the UK. He also held a visiting position at the Frankfurt School of Finance and Management in Germany. His main research interests include investment management, risk management, asset pricing, stochastic control and stochastic analysis, behavioural finance and financial decision theory. Seacute;bastien's articles appeared in journals such as SIAM Journal of Control and Optimization, Quantitative Finance and SIAM Journal on Financial Mathematics. He is also the author of several book chapters and a monograph on risk management published by the Research Foundation of CFA Institute. Seacute;bastien holds a PhD in Mathematics from Imperial College London (UK), a MBA from University of Ottawa (Canada), and a MSc in Management from Reims Management School (France). He is also a CFA Charterholder, a Certified Financial Risk Manager (FRM), a Professional Risk Manager (PRM), and a CQF alumnus.