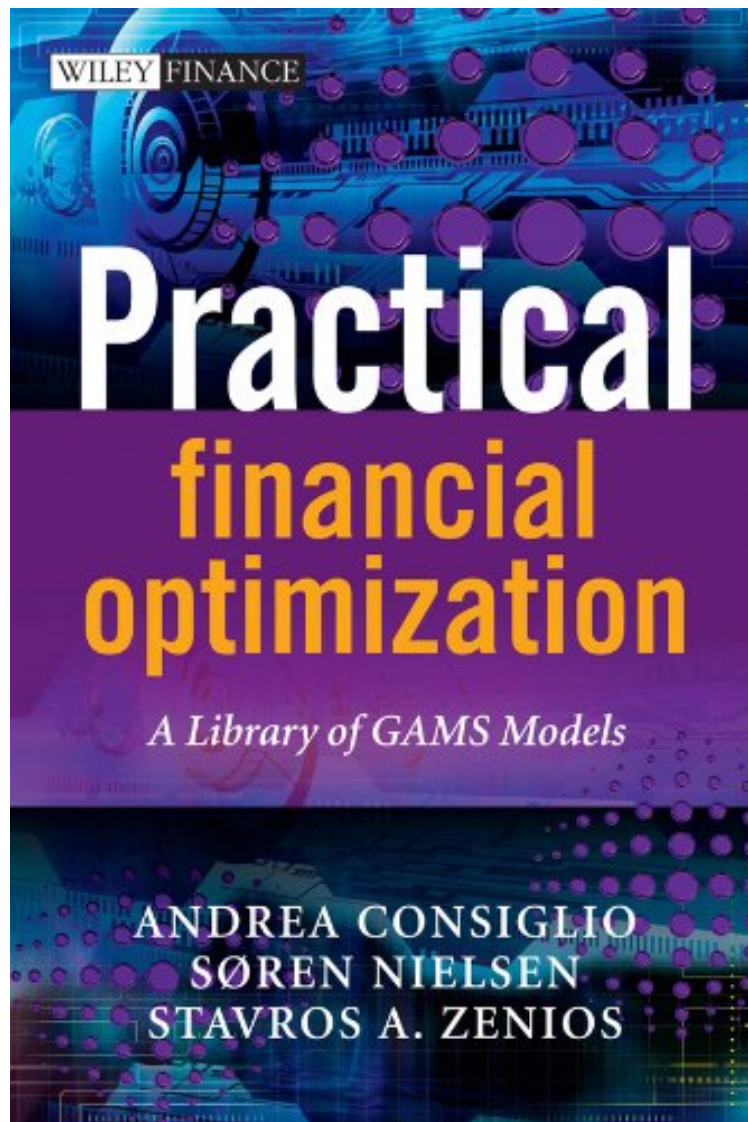


(Mobile library) Practical Financial Optimization: A Library of GAMS Models (The Wiley Finance Series)

Practical Financial Optimization: A Library of GAMS Models (The Wiley Finance Series)

Soren S Nielson, Andrea Consiglio
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Soren S Nielson, Andrea Consiglio : Practical Financial Optimization: A Library of GAMS Models (The Wiley Finance Series) before purchasing it in order to gage whether or not it would be worth my time, and all praised Practical Financial Optimization: A Library of GAMS Models (The Wiley Finance Series):

1 of 1 people found the following review helpful. A useful companion to the author's previous book.By Working_MathematicianContrary to another reviewer, I found this book worthwhile even if I'm not a specialist on the subject (but have good working knowledge of GAMS).Like any book, to appreciate it's value, one must meet a number

of prerequisites:- have knowledge of the mathematical models (this can be achieved by reading the author's other book);- have a knowledge of the GAMS modelling language (e.g. by reading the free online user guides available online). The book shows elegantly the power of modern algebraic modelling languages, such as GAMS, AMPL, AIMMS, etc. in the context of finance. The only negative aspect that comes to mind is the Wiley page formatting.

In *Practical Financial Optimization: A Library of GAMS Models*, the authors provide a diverse set of models for portfolio optimization, based on the General Algebraic Modelling System. 'GAMS' consists of a language which allows a high-level, algebraic representation of mathematical models and a set of solvers – numerical algorithms – to solve them. The system was developed in response to the need for powerful and flexible front-end tools to manage large, real-life models. The work begins with an overview of the structure of the GAMS language, and discusses issues relating to the management of data in GAMS models. The authors provide models for mean-variance portfolio optimization which address the question of trading off the portfolio expected return against its risk. Fixed income portfolio optimization models perform standard calculations and allow the user to bootstrap a yield curve from bond prices. Dedication models allow for standard portfolio dedication with borrowing and re-investment decisions, and are extended to deal with maximisation of horizon return and to incorporate various practical considerations on the portfolio tradeability. Immunization models provide for the factor immunization of portfolios of treasury and corporate bonds. The scenario-based portfolio optimization problem is addressed with mean absolute deviation models, tracking models, regret models, conditional VaR models, expected utility maximization models and put/call efficient frontier models. The authors employ stochastic programming for dynamic portfolio optimization, developing stochastic dedication models as stochastic extensions of the fixed income models discussed in chapter 4. Two-stage and multi-stage stochastic programs extend the scenario models analysed in Chapter 5 to allow dynamic rebalancing of portfolios as time evolves and new information becomes known. Models for structuring index funds and hedging interest rate risk on international portfolios are also provided. The final chapter provides a set of 'case studies': models for large-scale applications of portfolio optimization, which can be used as the basis for the development of business support systems to suit any special requirements, including models for the management of participating insurance policies and personal asset allocation. The title will be a valuable guide for quantitative developers and analysts, portfolio and asset managers, investment strategists and advanced students of finance.

From the Back Cover
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About the Author
ANDREA CONSIGLIO is professor of Mathematical Finance at the University of Palermo, Italy. He has held positions at the University of Calabria and at the University of Cyprus. He has participated in consultancy projects with the Banca della Svizzera Italiana, Switzerland and Prometeia, Italy. He has co-authored one book and numerous articles for various leading academic journals. In 2006 he was awarded the EURO Excellence in Practice Award, jointly with Stavros A. Zenios and Flavio Cocco. His research interests encompass many areas in the field of financial modeling and computational finance. He holds a PhD in applied mathematics to finance and economics.
REN NIELSEN (1959-2003) was an Associate Professor in the Department of Informatics and

Mathematical Modeling at the Technical University of Denmark. He worked at the World Bank and the University of Texas at Austin. He held degrees in computer science and a PhD in decision sciences from the Wharton School of the University of Pennsylvania. STAVROS A. ZENIOS is Professor of Finance and Management Science at the University of Cyprus, Director of the HERMES European Centre of Excellence on Computational Finance and Economics, and Senior Fellow at the Wharton Financial Institutions Centre of the University of Pennsylvania. He has co-authored more than 130 articles in some of the premier journals in the field, serves on the editorial board of six journals, and received numerous awards for his research and publications. His previous books include *Practical Financial Optimization: Decision Making for Financial Engineers* (Blackwell Publishing, 2007); *Performance of Financial Institutions: Efficiency, Innovation, Regulation* (Cambridge University Press, 2000); *Parallel Optimization: Theory, Algorithms, and Applications* (Oxford University Press, 1997); and *Financial Optimization* (Cambridge University Press, 1996).