

| | |
|-------------------------|---|
| 1. Record Nr. | UNINA9910453702403321 |
| Autore | Daroczi Gergely |
| Titolo | Introduction to R for quantitative finance // Gergely Daroczi [and eight others] |
| Pubbl/distr/stampa | Birmingham : , : Packt Publishing, , 2013 |
| ISBN | 1-78328-094-8 |
| Edizione | [1st edition] |
| Descrizione fisica | 1 online resource (164 p.) |
| Collana | Community experience distilled |
| Disciplina | 332.015195 |
| Soggetti | Economics - Mathematical models Finance - Statistical methods R (Computer program language) Electronic books. |
| Lingua di pubblicazione | Inglese |
| Formato | Materiale a stampa |
| Livello bibliografico | Monografia |
| Note generali | Description based upon print version of record. |
| Nota di bibliografia | Includes bibliographical references and index. |
| Nota di contenuto | <p> ""Cover""; ""Copyright""; ""Credits""; ""About the Authors""; ""About the Reviewers""; ""www.PacktPub.com""; ""Table of Contents""; ""Preface""; ""Chapter 1: Time Series Analysis""; ""Working with time series data""; ""Linear time series modeling and forecasting""; ""Modeling and forecasting UK house prices""; ""Model identification and estimation""; ""Model diagnostic checking""; ""Forecasting""; ""Cointegration""; ""Cross hedging jet fuel""; ""Modeling volatility""; ""Volatility forecasting for risk management""; ""Testing for ARCH effects""; ""GARCH model specification"" ""GARCH model estimation""""Backtesting the risk model""; ""Forecasting""; ""Summary""; ""Chapter 2: Portfolio Optimization""; ""Mean-Variance model""; ""Solution concepts""; ""Theorem (Lagrange)""; ""Working with real data""; ""Tangency portfolio and Capital Market Line""; ""Noise in the covariance matrix""; ""When variance is not enough""; ""Summary""; ""Chapter 3: Asset Pricing Models""; ""Capital Asset Pricing Model""; ""Arbitrage Pricing Theory""; ""Beta estimation""; ""Data selection""; ""Simple beta estimation""; ""Beta estimation from linear regression""; ""Model testing"" ""Data collection""""Modeling the SCL""; ""Testing the explanatory power of the individual variance""; ""Summary""; ""Chapter 4: Fixed Income Securities""; ""Measuring market risk of fixed income securities""; </p> |

""Example a€? implementation in R""; ""Immunization of fixed income portfolios""; ""Net worth immunization""; ""Target date immunization""; ""Dedication""; ""Pricing a convertible bond""; ""Summary""; ""Chapter 5: Estimating the Term Structure of Interest Rates""; ""The term structure of interest rates and related functions""; ""The estimation problem"" ""Estimation of the term structure by linear regression"" ""Cubic spline regression""; ""Applied R functions""; ""Summary""; ""Chapter 6: Derivatives Pricing""; ""The Black-Scholes model""; ""The Cox-Ross-Rubinstein model""; ""Connection between the two models""; ""Greeks""; ""Implied volatility""; ""Summary""; ""Chapter 7: Credit Risk Management""; ""Credit default models""; ""Structural models""; ""Intensity models""; ""Correlated defaults the portfolio approach""; ""Migration matrices""; ""Getting started with credit scoring in R""; ""Summary""; ""Chapter 8: Extreme Value Theory"" ""Theoretical overview"" ""Application modeling insurance claims""; ""Exploratory data analysis""; ""Tail behavior of claims""; ""Determining the threshold""; ""Fitting a GPD distribution to the tails""; ""Quantile estimation using the fitted GPD model""; ""Calculation of expected loss using the fitted GPD model""; ""Summary""; ""Chapter 9: Financial Networks""; ""Representation, simulation, and visualization of financial networks""; ""Analysis of networks structure and detection of topology changes""; ""Contribution to systemic risk a€? identification of SIFIs""; ""Summary"" ""Appendix: References""

Sommario/riassunto

This book is a tutorial guide for new users that aims to help you understand the basics of and become accomplished with the use of R for quantitative finance. If you are looking to use R to solve problems in quantitative finance, then this book is for you. A basic knowledge of financial theory is assumed, but familiarity with R is not required. With a focus on using R to solve a wide range of issues, this book provides useful content for both the R beginner and more experience users.