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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""; ""Example a€? implementation in R""; ""Immunization of fixed income </p>

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.
