1. Record Nr. UNINA9911020432003321 Autore Nyholm Ken Titolo Strategic asset allocation in fixed-income markets: a MATLAB-based user's guide / / Ken Nyholm Hoboken, NJ;; Chichester, West Sussex,: Wiley, c2008 Pubbl/distr/stampa **ISBN** 9786611939557 9781119207047 1119207045 9781281939555 1281939552 9780470721070 0470721073 Descrizione fisica 1 online resource (187 p.) Collana The Wiley Finance Series 332.63/2044 Disciplina Asset allocation - Mathematical models Soggetti Asset-liability management - Mathematical models 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 Strategic Asset Allocation in Fixed-Income Markets; Contents; List of Figures; Preface and Disclaimer; Acknowledgements; 1 Introduction; 1.1 Strategic asset allocation; 1.2 Outline of the book; 2 Essential Elements of MATLAB; 2.1 Introduction; 2.2 Getting started; 2.3 Introductory matrix algebra; 2.4 Organising data; 2.5 Creating functions; 2.6 Linear regression; 2.7 Some estimation examples; 2.8 A brief introduction to simulations; 3 Fixed-Income Preliminaries; 3.1 Introduction; 3.2 Spot rates and yields; 3.3 Forward rates; 3.4 Bond pricing functions; 4 Risk and Return Measures 4.1 Introduction 4.2 Risk measures; 4.3 Fixed-income returns; 5 Term Structure Models; 5.1 Introduction; 5.2 Not necessarily arbitrage-free models: 5.3 Arbitrage-free models: 6 Asset Allocation: 6.1 Introduction; 6.2 Efficient portfolios; 6.3 Diversification; 6.4 The

minimum variance portfolio; 6.5 Asset weight constraints; 6.6 The Capital Asset Pricing Model; 7 Statistical Tools; 7.1 Introduction; 7.2 Vector autoregression; 7.3 Regime-switching models; 7.4 Yield curve

models in state-space form; 7.5 Importance sampling; 8 Building Graphical User Interfaces; 8.1 Introduction

8.2 The 'guide' development environment8.3 Creating a simple GUI; 9 Useful Formulae and Expressions; 9.1 Introduction; 9.2 Matrix operations; 9.3 Decompositions; 9.4 Basic rules; 9.5 Distributions; 9.6 Functions; 9.7 Taylor series approximation; 9.8 Interest rates, returns and portfolio statistics; Bibliography; Index

## Sommario/riassunto

Matlab is used within nearly all investment banks and is a requirement in most quant job ads. There is no other book written for finance practitioners that covers thisEnables readers to implement financial and econometric models in MatlabAll central concepts and theories are illustrated by Matlab implementations which are accompanied by detailed descriptions of the programming steps neededAll concepts and techniques are introduced from a basic levelChapter 1 introduces Matlab and matrix algebra, it serves to make the reader familiar with the use and basic capabilities i