

1. Record Nr.	UNINA9910817063103321
Autore	Duffy Daniel J
Titolo	C# for financial markets // Daniel J. Duffy and Andrea Germani
Pubbl/distr/stampa	Chichester, : John Wiley & Sons, 2013 Chichester, West Sussex : , : Wiley, , 2013
ISBN	1-118-81857-1 1-299-18856-7 1-118-50281-7 1-118-50283-3
Edizione	[1st edition]
Descrizione fisica	1 online resource (xxii, 831 pages) : illustrations
Collana	Wiley finance
Disciplina	332.0285/5133
Soggetti	Finance - Mathematical models Finance - Data processing C# (Computer program language)
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	C# for Financial Markets; Contents; List of Figures; List of Tables; Introduction; 0.1 What Is This Book?; 0.2 Special Features in This Book; 0.3 Who Is This Book for and What Do You Learn?; 0.4 Structure of This Book; 0.5 C# Source Code; 1 Global Overview of the Book; 1.1 Introduction and Objectives; 1.2 Comparing C# and C++; 1.3 Using This Book; 2 C# Fundamentals; 2.1 Introduction and Objectives; 2.2 Background to C#; 2.3 Value Types, Reference Types and Memory Management; 2.4 Built-in Data Types in C#; 2.5 Character and String Types; 2.6 Operators; 2.7 Console Input and Output 2.8 User-defined Structs 2.9 Mini Application: Option Pricing; 2.10 Summary and Conclusions; 2.11 Exercises and Projects; 3 Classes in C#; 3.1 Introduction and Objectives; 3.2 The Structure of a Class: Methods and Data; 3.3 The Keyword 'this'; 3.4 Properties; 3.5 Class Variables and Class Methods; 3.6 Creating and Using Objects in C#; 3.7 Example: European Option Price and Sensitivities; 3.7.1 Supporting Mathematical Functions; 3.7.2 Black-Scholes Formula; 3.7.3 C# Implementation; 3.7.4 Examples and Applications; 3.8 Enumeration Types; 3.9 Extension Methods

3.10 An Introduction to Inheritance in C#; 3.11 Example: Two-factor Payoff Hierarchies and Interfaces; 3.12 Exception Handling; 3.13 Summary and Conclusions; 3.14 Exercises and Projects; 4 Classes and C# Advanced Features; 4.1 Introduction and Objectives; 4.2 Interfaces; 4.3 Using Interfaces: Vasicek and Cox-Ingersoll-Ross (CIR) Bond and Option Pricing; 4.3.1 Defining Standard Interfaces; 4.3.2 Bond Models and Stochastic Differential Equations; 4.3.3 Option Pricing and the Visitor Pattern; 4.4 Interfaces in .NET and Some Advanced Features; 4.4.1 Copying Objects; 4.4.2 Interfaces and Properties; 4.4.3 Comparing Abstract Classes and Interfaces; 4.4.4 Explicit Interfaces; 4.4.5 Casting an Object to an Interface; 4.5 Combining Interfaces, Inheritance and Composition; 4.5.1 Design Philosophy: Modular Programming; 4.5.2 A Model Problem and Interfacing; 4.5.3 Implementing the Interfaces; 4.5.4 Examples and Testing; 4.6 Introduction to Delegates and Lambda Functions; 4.6.1 Comparing Delegates and Interfaces; 4.7 Lambda Functions and Anonymous Methods; 4.8 Other Features in C#; 4.8.1 Static Constructors; 4.8.2 Finalisers; 4.8.3 Casting; 4.8.4 The var Keyword; 4.9 Advanced .NET Delegates; 4.9.1 Provides and Requires Interfaces: Creating Plug-in Methods with Delegates; 4.9.2 Multicast Delegates; 4.9.3 Generic Delegate Types; 4.9.4 Delegates versus Interfaces, Again; 4.10 The Standard Event Pattern in .NET and the Observer Pattern; 4.11 Summary and Conclusions; 4.12 Exercises and Projects; 5 Data Structures and Collections; 5.1 Introduction and Objectives; 5.2 Arrays; 5.2.1 Rectangular and Jagged Arrays; 5.2.2 Bounds Checking; 5.3 Dates, Times and Time Zones; 5.3.1 Creating and Modifying Dates; 5.3.2 Formatting and Parsing Dates; 5.3.3 Working with Dates; 5.4 Enumeration and Iterators

Sommario/riassunto

A practice-oriented guide to using C# to design and program pricing and trading models. In this step-by-step guide to software development for financial analysts, traders, developers and quants, the authors show both novice and experienced practitioners how to develop robust and accurate pricing models and employ them in real environments. Traders will learn how to design and implement applications for curve and surface modeling, fixed income products, hedging strategies, plain and exotic option modeling, interest rate options, structured bonds, unfunded structured products, and
