

1. Record Nr.	UNINA9911019439703321
Autore	Janssen Jacques <1939->
Titolo	Mathematical finance : deterministic and stochastic models / / Jacques Janssen, Raimondo Manca, Ernesto Volpe di Prignano
Pubbl/distr/stampa	London, : ISTE Hoboken, N.J., : John Wiley, 2009
ISBN	9786612165399 9781118622414 1118622413 9781282165397 1282165399 9780470611692 0470611693 9780470394328 0470394323
Descrizione fisica	1 online resource (874 p.)
Collana	ISTE ; ; v.83
Altri autori (Persone)	MancaRaimondo Volpe di PrignanoErnesto
Disciplina	332.01/51922
Soggetti	Finance - Mathematical models Stochastic processes Investments - Mathematics
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	Mathematical Finance: Deterministic and Stochastic Models; Table of Contents; Preface; Part I. Deterministic Models; Chapter 1. Introductory Elements to Financial Mathematics; 1.1. The object of traditional financial mathematics; 1.2. Financial supplies. Preference and indifference relations; 1.2.1. The subjective aspect of preferences; 1.2.2. Objective aspects of financial laws. The equivalence principle; 1.3. The dimensional viewpoint of financial quantities; Chapter 2. Theory of Financial Laws; 2.1. Indifference relations and exchange laws for simple financial operations 2.2. Two variable laws and exchange factors 2.3. Derived quantities in

the accumulation and discount laws; 2.3.1. Accumulation; 2.3.2. Discounting; 2.4. Decomposable financial laws; 2.4.1. Weak and strong decomposability properties: equivalence relations; 2.4.2. Equivalence classes: characteristic properties of decomposable laws; 2.5. Uniform financial laws: mean evaluations; 2.5.1. Theory of uniform exchange laws; 2.5.2. An outline of associative averages; 2.5.3. Average duration and average maturity; 2.5.4. Average index of return: average rate

2.6. Uniform decomposable financial laws: exponential regime

Chapter 3. Uniform Regimes in Financial Practice; 3.1. Preliminary comments; 3.1.1. Equivalent rates and intensities; 3.2. The regime of simple delayed interest (SDI); 3.3. The regime of rational discount (RD); 3.4. The regime of simple discount (SD); 3.5. The regime of simple advance interest (SAI); 3.6. Comments on the SDI, RD, SD and SAI uniform regimes; 3.6.1. Exchange factors (EF); 3.6.2. Corrective operations; 3.6.3. Initial averaged intensities and instantaneous intensity 3.6.4. Average length in the linear law and their conjugates

3.6.5. Average rates in linear law and their conjugated laws; 3.7. The compound interest regime; 3.7.1. Conversion of interests; 3.7.2. The regime of discretely compound interest (DCI); 3.7.3. The regime of continuously compound interest (CCI); 3.8. The regime of continuously compound discount (CCD); 3.9. Complements and exercises on compound regimes; 3.10. Comparison of laws of different regimes;

Chapter 4. Financial Operations and their Evaluation: Decisional Criteria; 4.1. Calculation of capital values: fairness

4.2. Retrospective and prospective reserve

4.3. Usufruct and bare ownership in "discrete" and "continuous" cases; 4.4. Methods and models for financial decisions and choices; 4.4.1. Internal rate as return index; 4.4.2. Outline on GDCF and "internal financial law"; 4.4.3. Classifications and property of financial projects; 4.4.4. Decisional criteria for financial projects; 4.4.5. Choice criteria for mutually exclusive financial projects; 4.4.6. Mixed projects: the TRM method; 4.4.7. Decisional criteria on mixed projects; 4.5. Appendix: outline on numerical methods for the solution of equations

4.5.1. General aspects

Sommario/riassunto

This book provides a detailed study of Financial Mathematics. In addition to the extraordinary depth the book provides, it offers a study of the axiomatic approach that is ideally suited for analyzing financial problems. This book is addressed to MBA's, Financial Engineers, Applied Mathematicians, Banks, Insurance Companies, and Students of Business School, of Economics, of Applied Mathematics, of Financial Engineering, Banks, and more.