| 1. | Record Nr.              | UNINA9910786796003321   |
|----|-------------------------|---|
|    | Autore                  | Ziemba W. T.  |
|    | Titolo                  | Stochastic optimization models in finance / / editors, W. T. Ziemba, R. G. Vickson  |
|    | Pubbl/distr/stampa      | New York : , : Academic Press, , 1975<br>©1975  |
|    | ISBN                    | 1-4832-7399-7   |
|    | Descrizione fisica      | 1 online resource (xvi, 719 pages) : illustrations  |
|    | Collana                 | Economic Theory and Mathematical Economics  |
|    | Disciplina              | 332.01/51922<br>332.0151922   |
|    | Soggetti                | Finance - Mathematical models   |
|    |                         | Mathematical optimization   |
|    |                         | Stochastic processes  |
|    | 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 at the end of each chapters.  |
|    | Nota di contenuto       | Front Cover; Stochastic Optimization Models in Finance; Copyright<br>Page; Dedication; Table of Contents; PREFACE; ACKNOWLEDGMENTS;<br>Part I: Mathematical Tools; INTRODUCTION; I. Expected Utility Theory;<br>II. Convexity and the Kuhn-Tucker Conditions; III. Dynamic<br>Programming; SECTION1: EXPECTED UTILITY THEORY; CHAPTER 1. A<br>GENERAL THEORY OF SUBJECTIVE PROBABILITIESAND EXPECTED<br>UTILITIES; 1.Introduction; 2. Definitions andnotation; 3. Axioms and<br>summarytheorem; 4.Theorems; 5. Proof of Theorem3; 6. Proof of<br>Theorem4; SECTION2: CONVEXITY AND THE KUHN-<br>TUCKERCONDITIONS; CHAPTER2. PSEUDO-CONVEX FUNCTIONS<br>Abstract1.Introduction; 2. Properties of pseudo-convex functions and<br>applications; 3. Remarks on pseudo-convex functions; 4.<br>Acknowledgement; CHAPTER3. CONVEXITY, PSEUDO-CONVEXITY AND<br>QUASI-CONVEXITY OF COMPOSITE FUNCTIONS; ABSTRACT;<br>Preliminaries; Principal result; Applications; SECTION3: DYNAMIC<br>PROGRAMMING; Chapter4. Introduction to Dynamic Programming; I.<br>Introduction; II. Sequential Decision Processes; III. Terminating Process;<br>IV. The Main Theorem and an Algorithm; V. Nonterminating Processes;<br>ACKNOWLEDGMENT; REFERENCES; CHAPTER5. COMPUTATIONAL AND |

|                    | REVIEW EXERCISES; Exercise Source Notes<br>CHAPTER6. MIND-EXPANDING EXERCISES Exercise Source Notes; Part II:<br>Qualitative Economic Results; INTRODUCTION; I. Stochastic Dominance;<br>II. Measures of Risk Aversion; III. Separation Theorems; IV. Additional<br>Reading Material; SECTION1: STOCHASTIC DOMINANCE; Chapter 1. The<br>Efficiency Analysis of Choices Involving Risk; I. INTRODUCTION; II.<br>UNRESTRICTED UTILITY-THE GENERALEFFICIENCY CRITERION; III.<br>EFFICIENCY IN THE FACE OF RISK AVERSION; IV. THE LIMITATIONS OF<br>THE MEAN-VARIANCEEFFICIENCY CRITERION; V. CONCLUSION;<br>REFERENCES; Chapter 2. A Unified Approach to Stochastic Dominance<br>I. Introduction to Stochastic Dominance II. Examples of Stochastic<br>Dominance, REFERENCES; SECTION2: MEASURES OF RISK AVERSION;<br>CHAPTER3. RISK AVERSION IN THE SMALL AND IN THE LARGE; 1.<br>SUMMARY AND INTRODUCTION; 2. THE RISK PREMIUM; 3. LOCAL RISK<br>AVERSION; 4. CONCAVITY; 5. COMPARATIVE RISK AVERSION; 6.<br>CONSTANT RISK AVERSION IN THE SMALL AND IN THE LARGE; 1.<br>SUMMARY AND INTRODUCTION; 2. THE RISK PREMIUM; 3. LOCAL RISK<br>AVERSION; 8. OPERATIONS WHICH PRESERVE DECREASING RISK<br>AVERSION; 9. EXAMPLES; 10. PROPORTIONAL RISK AVERSION; 6.<br>CONSTANT RISK AVERSION; 7. INCREASING AND DECREASING RISK<br>AVERSION; 9. EXAMPLES; 10. PROPORTIONAL RISK AVERSION; 11.<br>CONSTANT PROPORTIONAL RISK AVERSION<br>12. INCREASING AND DECREASING PROPORTIONAL RISK AVERSION; 11.<br>CONSTANT PROPORTIONAL RISK AVERSION<br>12. INCREASING AND DECREASING PROPORTIONAL RISK AVERSION; 13.<br>RELATED WORK OF ARROW; ADDENDUM; SECTION3: SEPARATION<br>THEOREMS; CHAPTER 4. THE VALUATION OF RISK ASETS AND THE<br>SELECTION OF RISKY INVESTMENTS IN STOCKPORTFOLIOS AND CAPITAL<br>BUDGETS; Introduction and Preview of Some Conclusions; 1 - Portfolio<br>Selection for an Individual Investor: The Separation Theorem; II -<br>Portfolio Selection: The Optimal Stock Mix; III Risk Premiums and Other<br>Properties of Stocks Held Long or Short in Optimal Portfolios; IV -<br>Market Prices of Shares Implied by Shareholder Optimization in Purely<br>Competitive Markets Under Idealized Uncertainty |
|--------------------|--|
| Sommario/riassunto | Stochastic Optimization Models in Finance  |
|                    |  |