Financial Derivatives Theory Concepts And Problems Chapter

Leveraged Finance

COMMODITY AND FINANCIAL DERIVATIVES

All About Derivatives

Derivatives Markets and Analysis

Derivatives and the Wealth of Societies

The Economics of Derivatives

Quantitative Modeling of Derivative Securities

The Mathematics of Financial Derivatives

Derivatives and Risk Management

Derivatives

FINANCIAL DERIVATIVES

A Course in Derivative Securities

Exotic Derivatives and Risk

Finance and Derivatives

Theory of Financial Risk and Derivative Pricing


An Introduction to the Mathematics of Financial Derivatives

American-Style Derivatives

Security Analysis, Portfolio Management, and Financial Derivatives

Elementary Financial Derivatives

Intermediate Financial Theory

Advanced Derivatives Pricing and Risk Management

Global Derivatives Pricing and Hedging

Financial Derivatives

Mathematical Models of Financial Derivatives

FINANCIAL DERIVATIVES

Derivatives Essentials

Financial Calculus

Derivative Pricing

FINANCIAL DERIVATIVES

The Social Life of Financial Derivatives

Understanding Credit Derivatives and Related Instruments

Risk Management and Financial Derivatives

Actuarial Finance

An Introduction to Equity Derivatives

Financial Derivatives

Advanced Quantitative Finance with C++

Financial Derivatives

Designed as a text for postgraduate students of management, commerce, and financial studies, this compact text clearly explains the subject without the mathematical complexities one comes across in many textbooks. The book deals with derivatives and their pricing, keeping the Indian regulatory and trading environment as the backdrop. What's more, each product is explained in detail with illustrative examples so as to make it easier for comprehension. The book first introduces the readers to the derivatives market and the quantitative foundations. Then it goes on to give a detailed description of the Forward Agreements, Interest Rate Futures, and Stock Index Futures and Swaps. The text also focuses on Options—Option Pricing, Option Hedging and Option Trading Strategies. It concludes with a discussion on OTC derivatives.

KEY FEATURES:

The application of each derivative product is illustrated with the help of solved examples. Practice problems are given at the end of each chapter. A detailed glossary, important formulae and major website addresses are included in the book. This book would also be of immense benefit to students pursuing courses in CA, ICWA and CFA. In today's competitive world, Financial Derivatives occupy a significant and integral part of the global capital markets. This up-to-date and contemporary text gives an in-depth analysis of the underlying concepts of Financial Derivatives and deals with the technical aspects of all the important financial derivatives. It also dwells on the financial markets where these derivatives are traded. The book seeks to capture the essence of the modern developments in financial derivatives and provides a wide coverage of the intricate and complex world of financial derivatives. Organized into five sections, the text balances rigour with clarity of explanations and practical treatment of the subject. Each chapter begins with a brief theoretical description followed by relevant examples. Diagrams, charts and tables have been incorporated at the appropriate places to illustrate the concepts discussed.

A step-by-step explanation of the mathematical models used to price derivatives. For this second edition, Salih Neftci has expanded one chapter, added six new ones, and inserted chapter-concluding exercises. He does not assume that the reader has a thorough mathematical background. His explanations of financial calculus seek to be simple and perceptive. Comprehensive introduction to the main issues in the credit derivatives market, including an accessible introduction to valuation methods. The contributors to this volume draw upon their deep backgrounds in finance, the social sciences, arts, and the humanities to create a new way of understanding derivative capitalism that does justice to its technical, social, and cultural dimensions. The financial crisis of 2008 demonstrated both that derivatives are capable of producing great wealth and that their deregulation and privatization cannot control the risks that they produce. A popular reaction is to focus on the regulation or abolition of derivative finance. These authors take a different tack and instead raise the question: if we should want access to the wealth that derivatives are capable of producing, what kind of social institutions and policies would be needed to make such wealth production work for the benefit of all of us? Since this question goes to the very heart of what kind of society is most desirable, the volume argues that we need both a social understanding of the derivative and a derivative understanding of the social. The derivative reading of the social employs a small set of financial concepts to understand certain defining dimensions of contemporary reality. The central concept is that of volatility and its relations to risk, uncertainty, hedging, optionality, and arbitrage. The social reading of the derivative involves anthropological discussions of the gift, ritual, play, and performativity and provides us with frames of embodiment for analyzing, through action and event, the ways derivatives do their work. "Deals with pricing and hedging financial derivatives. Computational methods are introduced and the text contains the Excel VBA routines corresponding to the formulas and procedures described in the book. This is valuable since computer simulation can help readers understand the theory. The book succeeds in presenting intuitively advanced derivative modelling it provides a useful bridge between introductory books and the more advanced literature." --MATHEMATICAL REVIEWS

This highly acclaimed text, designed for postgraduate students of management, commerce, and financial studies, has been enlarged and updated in its second edition by introducing new chapters and topics with its focus on conceptual understanding based on practical examples. Each derivative product is illustrated with the help of diagrams, charts, tables and solved problems. Sufficient exercises and review questions help students to practice and test their knowledge. Since this comprehensive text includes latest developments in the
field, the students pursuing CA, ICWA and CFA will also find this book of immense value, besides management and commerce students. THE NEW EDITION INCLUDES • Four new chapters on ‘Forward Rate Agreements’, ‘Pricing and Hedging of Swaps’, ‘Real Options’, and ‘Commodity Derivatives Market’ • Substantially revised chapters—‘Risk Management in Derivatives’, ‘Foreign Currency Forwards’, and ‘Credit Derivatives’ • Trading mechanism of Short-term interest rate futures and Long-term interest rate futures • Trading of foreign currency futures in India with RBI Guidelines • Currency Option Contracts in India • More solved examples and practice problems • Separate sections on ‘Swaps’ and ‘Other Financial Instruments’ • Extended GlossaryThis book offers a complete, succinct account of the principles of financial derivatives pricing. The first chapter provides readers with an intuitive exposition of basic random calculus. Concepts such as volatility and time, random walks, geometric Brownian motion, and Itô’s lemma are discussed heuristically. The second chapter develops generic pricing techniques for assets and derivatives, determining the notion of a stochastic discount factor or pricing kernel, and then uses this concept to price conventional and exotic derivatives. The third chapter applies the pricing concepts to the special case of interest rate markets, namely, bonds and swaps, and discusses factor models and term structure consistent models. The fourth chapter deals with a variety of mathematical topics that underlie derivatives pricing and portfolio allocation decisions such as mean-reverting processes and jump processes and discusses related tools of stochastic calculus such as Kolmogorov equations, martingale techniques, stochastic control, and partial differential equations. This is the second edition of the book on Commodity and Financial Derivatives. It provides an in-depth analysis of the underlying concepts of the different types of commodity and financial derivatives, namely, forwards, forwards, futures, options and swaps. It explains the trading processes of the derivatives and highlights their uses. Beginning with an overview of the subject, the text discusses in detail the forwards emphasizing the currency forward. It presents the different types of futures—commodity futures, currency futures, stock futures, index futures, interest rate futures—and the different types of options—stock options and currency options. The text continues to explain the option pricing models. It concludes with a chapter on financial swaps, which describes the operational modalities of currency swaps and interest rate swaps. The Indian context and environment are highlighted while explaining the trading processes of the different types of derivatives to familiarize the reader with the Indian derivatives market. The text is supported by illustrative examples, diagrams, tables and review questions to reinforce the understanding of the subject matter. The textbook is primarily intended for the postgraduate students of finance, commerce and management. It will also be useful to all those who are engaged in derivatives trading and who facilitate derivatives trading. New to the second edition A large number of numerical examples and exercises are added to the various chapters to help the users understand the practical application of derivatives in hedging risk in diverse situations. A comprehensive, concise treatment of the subject of Derivatives focusing on making essential concepts accessible to wider audiences. A new textbook offering a comprehensive introduction to models and techniques for the emerging field of actuarial Finance Drs. Boudreault and Renaud answer the need for a clear, application-oriented guide to the growing field of actuarial finance with this volume, which focuses on the mathematical models and techniques used in actuarial finance for the pricing and hedging of actuarial liabilities exposed to financial markets and other contingencies. With roots in modern financial mathematics, actuarial finance presents unique challenges due to the long-term nature of insurance liabilities, the presence of mortality or other contingencies and the structure and regulations of the insurance and pension markets. Motivated, designed and written for and by actuaries, this book puts actuarial applications at the forefront in addition to balancing mathematics and finance at an adequate level to actuarial undergraduates. While the classical theory of financial mathematics is discussed, the authors provide a thorough grounding in such crucial topics as recognizing embedded options in actuarial liabilities, adequately quantifying and pricing liabilities, and using derivatives and other assets to manage actuarial and financial risks. Actuarial applications are emphasized and illustrated with about 300 examples and 200 exercises. The book also comprises end-of-chapter point-form summaries to help the reader review the most important concepts. Additional topics and features include: Comparing pricing in insurance and financial markets Discusses event-triggered derivatives such as weather, catastrophe and longevity derivatives and how they can be used for risk management; Introduces equity-linked insurance and annuities (EIAs, VAs), relates them to common derivatives and how to manage mortality for these products Introduces pricing and replication in incomplete markets and analyses the impact of market incompleteness on insurance and risk management; Presents immunization techniques alongside Greeks-based hedging; Covers in detail how to delta-gamma/rho/vega hedge a liability and how to rebalance periodically a hedging portfolio. This text will prove itself a firm foundation for undergraduate courses in financial mathematics or economics, actuarial mathematics or derivative markets. It is also highly applicable to current and future actuaries preparing for the exams or actuary professionals looking for a valuable addition to their reference shelf. As of 2019, the book covers significant parts of the Society of Actuaries’ Exams FM, IFM and QFI Core, and the Casualty Actuarial Society’s Exams 2 and 3F. It is assumed the reader has basic skills in calculus (differentiation and integration of functions), probability (at the level of the Society of Actuaries’ Exam P), interest theory (time value of money) and, ideally, a basic understanding of elementary stochastic processes such as random walks. Quantitative Modeling of Derivative Securities demonstrates how to take the basic ideas of arbitrage theory and apply them - in a very concrete way - to the design and analysis of financial products. Based primarily (but not exclusively) on the analysis of derivatives, the book emphasizes relative-value and hedging ideas applied to different financial instruments. Using a "financial engineering approach," the theory is developed progressively, focusing on specific aspects of pricing and hedging and with problems that the technical analyst or trader has to consider in practice. More than just an introductory text, the reader who has mastered the contents of this one book will have
breached the gap separating the novice from the technical and research literature. This second edition, now featuring new material, focuses on the valuation principles that are common to most derivative securities. A wide range of financial derivatives commonly traded in the equity and fixed income markets are analysed, emphasising aspects of pricing, hedging and practical usage. This second edition features additional emphasis on the discussion of Ito calculus and Girsanov Theorem, and the risk-neutral measure and equivalent martingale pricing approach. A new chapter on credit risk models and pricing of credit derivatives has been added. Up-to-date research results are provided by many useful exercises. A practical, informative guide to derivatives in the real world. Derivatives is an exposition on investments, guiding you from the basic concepts, strategies, and fundamentals to a more detailed understanding of the advanced strategies and models. As part of Bloomberg Financial’s three part series on securities, Derivatives focuses on derivative securities and the functionality of the Bloomberg system with regards to derivatives. You’ll develop a tighter grasp of the more subtle complexities involved in the evaluation, selection, and management of derivatives, and gain the practical skillset necessary to apply your knowledge to real-world investment situations using the tools and techniques that dominate the industry. Instructions for using the widespread Bloomberg system are interwoven throughout, allowing you to directly apply the techniques and processes discussed using your own data. You’ll learn the many analytical functions used to evaluate derivatives, and how these functions are applied within the context of each investment topic covered. All Bloomberg information appears in specified boxes embedded throughout the text, making it easy for you to find it quickly when you need it, or easily skip it in favor of the theory-based text. Managing securities in today’s dynamic and innovative investment environment requires a strong understanding of how the increasing variety of securities, markets, strategies, and methodologies are used. This book gives you a more thorough understanding, and a practical skillset that investment managers need. Understand derivatives strategies and models from basic to advanced. Apply Bloomberg information and analytical functions to learn how investment decisions are made in the real world. Grasp the complexities of securities evaluation, selection, and management. The financial and academic developments of the past twenty years have highlighted the challenge in acquiring a comprehensive understanding of investments and financial markets. Derivatives provides the detailed explanations you’ve been seeking, and the hands-on training the real world demands. The second edition of this authoritative textbook continues the tradition of providing clear and concise descriptions of the new and classic concepts in financial theory. The authors keep the theory accessible by requiring very little mathematical background. First edition published by Prentice-Hall in 2001. ISBN 0130174467. The second edition includes new structure emphasizing the distinction between the equilibrium and the arbitrage perspectives on valuation and pricing, as well as a new chapter on asset management for the long term investor. "This book does admirably what it sets out to do - provide a bridge between MBA-level finance texts and Ph.D-level texts. Many books claim to require little prior mathematical training, but this one actually does so. This book may be a good one for Ph.D students outside finance who need some basic training in financial theory or for those looking for a more user-friendly introduction to advanced theory. The exercises are very good."—Ian Gow, Student, Graduate School of Business, Stanford University Completely updated edition of classic textbook that fills a gap between MBA-level finance texts and Ph.D-level texts. Focuses on clear explanations of key concepts and requires limited mathematical prerequisites. Updates includes new structure emphasizing the distinction between the equilibrium and the arbitrage perspectives on valuation and pricing, as well as a new chapter on asset management for the long term investor. The book takes the reader through a fast but structured crash-course in quantitative finance, from theory to practice. If you are a quantitative analyst, risk manager, actuary, or a professional working in the field of quantitative finance and want a quick hands-on introduction to the pricing of financial derivatives, this book is ideal for you. You should be familiar with the basic programming concepts and C++ programming language. You should also be acquainted with calculus of undergraduate level. A clear, practical guide to working effectively with derivative securities products. Derivatives Essentials is an accessible, yet detailed guide to derivative securities. With an emphasis on mechanisms over formulas, this book promotes a greater understanding of the topic in a straightforward manner, using plain-English explanations. Mathematics are included, but the focus is on comprehension and the issues that matter most to practitioners—including the rights and obligations, terms and conventions, opportunities and exposures, trading, motivation, sensitivities, pricing, and valuation of each product. Coverage includes forwards, futures, options, swaps, and related products and trading strategies, with practical examples that demonstrate each concept in action. The companion website provides Excel files that illustrate pricing, valuation, sensitivities, and strategies discussed in the book, and practice and assessment questions for each chapter allow you to reinforce your learning and gauge the depth of your understanding. Derivative securities are a complex topic with many "moving parts," but practitioners must possess a full working knowledge of these products to use them effectively. This book promotes a truly internalized understanding rather than rote memorization or strict quantitation, with clear explanations and true-to-life examples. Understand the concepts behind derivative securities. Delve into the nature, pricing, and offset of sensitivities. Learn how different products are priced and valued. Examine trading strategies and practical examples for each product. Pricing and valuation is important, but understanding the fundamental nature of each product is critical—it gives you the power to wield them more effectively, and exploit their natural behaviors to achieve both short- and long-term market goals. Derivatives Essentials provides the clarity and practical perspective you need to master the effective use of derivative securities products. This book examines the beneficial and adverse effects of derivatives trading from economic theory and the recent economic history. A rigorous introduction to the mathematics of pricing, construction and hedging of derivative securities. Risk Management and Financial Derivatives: A Guide to the Mathematics meets the demand for a simple, nontechnical explanation of the methodology of risk management and
financial derivatives." "Risk Management and Financial Derivatives provides clear, concise explanations of the mathematics behind today's complex financial risk management topics. An ideal introduction for those new to the subject, it will also serve as an indispensable reference for those already experienced in the field."--BOOK JACKET.Title Summary field provided by Blackwell North America, Inc. All Rights ReservedThe only guide focusing entirely on practical approaches to pricing and hedging derivatives One valuable lesson of the financial crisis was that derivatives and risk practitioners don't really understand the products they're dealing with. Written by a practitioner for practitioners, this book delivers the kind of knowledge and skills traders and finance professionals need to fully understand derivatives and price and hedge them effectively. Most derivatives books are written by academics and are long on theory and short on the day-to-day realities of derivatives trading. Of the few practical guides available, very few of those cover pricing and hedging—two critical topics for traders. What matters to practitioners is what happens on the trading floor—information only seasoned practitioners such as authors Marroni and Perdomo can impart. Lays out proven derivatives pricing and hedging strategies and techniques for equities, FX, fixed income and commodities, as well as for multi-assets and cross-assets Provides expert guidance on the development of structured products, supplemented with a range of practical examples. Packed with real-life examples covering everything from option payoff with delta hedging, to Monte Carlo procedures to common structured products payoffs. The Companion Website features all of the examples from the book in Excel complete with source code.Finance and Derivatives teaches all of the fundamentals of quantitative finance clearly and concisely without going into unnecessary technicalities. You'll pick up the most important theoretical concepts, tools and vocabulary without getting bogged down in arcane derivations or enigmatic theoretical considerations. --Paul Wilmott Finance and Derivatives: Theory and Practice is a collection of exercises accompanied by the relevant financial theory, covering key topics that include: present value, arbitrage pricing, portfolio theory, derivatives pricing, delta-hedging and the BlackScholes model. As well as being ideally placed to complement undergraduate and postgraduate studies, Finance and Derivatives: Theory and Practice is also highly valuable as a self-study guide for practitioners. Key Features: * No prior finance background is required, as the book starts with basic notions and gradually increases in difficulty through each chapter, ending with more advanced concepts. * Students can make progress at their own pace as each chapter includes course notes, exercises and solutions. * The authors have an excellent knowledge of both the academic environment and the finance industry, making the book well balanced between theory and practice. * Supplementary material for readers and lecturers is provided on an accompanying website. A step-by-step approach to the mathematical financial theory and quantitative methods needed to implement and apply state-of-the-art valuation techniques. Written as an accessible and appealing introduction to financial derivatives, Elementary Financial Derivatives: A Guide to Trading and Valuation with Applications provides the necessary techniques for teaching and learning complex valuation techniques. Filling the current gap in financial engineering literature, the book emphasizes an easy-to-understand approach to the methods and applications of complex concepts without focusing on the underlying statistical and mathematical theories. Organized into three comprehensive sections, the book discusses the essential topics of the derivatives market with sections on options, swaps, and financial engineering concepts applied primarily, but not exclusively, to the futures market. Providing a better understanding of how to assess risk exposure, the book also includes: A wide range of real-world applications and examples detailing the theoretical concepts discussed throughout. Numerous homework problems, highlighted equations, and Microsoft Excel® models for valuation. Pedagogical elements such as solved case studies, select answers to problems, and key terms and concepts to aid comprehension of the presented material. A companion website that contains an Instructor's Solutions Manual, sample lecture PowerPoint® slides, and related Excel files and data sets. Elementary Financial Derivatives: A Guide to Trading and Valuation with Applications is an excellent introductory textbook for upper-undergraduate courses in financial derivatives, quantitative finance, mathematical finance, and financial engineering. The book is also a valuable resource for practitioners in quantitative finance, industry professionals who lack technical knowledge of pricing options, and readers preparing for the CFA exam. Jana Sacks, PhD, is Associate Professor in the Department of Accounting and Finance at St. John Fisher College in Rochester, New York. A member of The American Finance Association, the National Association of Corporate Directors, and the International Atlantic Economic Society, Dr. Sack's research interests include risk management, credit derivatives, pricing, hedging, and structured finance. The answer to trading profit growth lies in derivatives. All About Derivatives explains the major derivatives and their key features of each; vital mechanical issues such as storage, settle- ment, valuation, and payoff; and common types of risk and how to effectively hedge against them. Michael Durbin is known as a derivatives trader and manager for one of the world's largest, most high-profile hedge funds. Understand derivatives in a nonmathematical way Financial Derivatives, Third Edition gives readers a broad working knowledge of derivatives. For individuals who want to understand derivatives without getting bogged down in the mathematics surrounding their pricing and valuation Financial Derivatives, Third Edition is the perfect read. This comprehensive resource provides a thorough introduction to financial derivatives and their importance to risk management in a corporate setting. Book and CDROM include the important topics and cutting-edge research in financial derivatives and risk management.Basic option theory - Numerical methods - Further option theory - Interest rate derivative products.In The Social Life of Financial Derivatives Edward LiPuma theorizes the profound social dimensions of derivatives markets and the processes, rituals, and belief systems that drive them. In response to the 2008 financial crisis and drawing on his experience trading derivatives, LiPuma outlines how they function as complex devices that organize speculative capital as well as the ways derivative-driven capitalism not only produces the conditions for its own existence, but also penetrates the fabric of everyday life. Framing finance as a form of social life and highlighting the intrinsically social
character of financial derivatives, LiPuma deepens our understanding of derivatives so that we may someday use them to serve the public well-being. Security Analysis, Portfolio Management, and Financial Derivatives integrates the many topics of modern investment analysis. It provides a balanced presentation of theories, institutions, markets, academic research, and practical applications, and presents both basic concepts and advanced principles. Topic coverage is especially broad: in analyzing securities, the authors look at stocks and bonds, options, futures, foreign exchange, and international securities. The discussion of financial derivatives includes detailed analyses of options, futures, option pricing models, and hedging strategies. A unique chapter on market indices teaches students the basics of index information, calculation, and usage and illustrates the important roles that these indices play in model formation, performance evaluation, investment strategy, and hedging techniques. Complete sections on program trading, portfolio insurance, duration and bond immunization, performance measurements, and the timing of stock selection provide real-world applications of investment theory. In addition, special topics, including equity risk premia, simultaneous-equation approach for security valuation, and Itô’s calculus, are also included for advanced students and researchers. This 2003 book summarizes theoretical developments in statistical tools to measure financial markets, for students and professionals in econophysics and analytical markets. While the valuation of standard American option contracts has now achieved a fair degree of maturity, much work remains to be done regarding the new contractual forms that are constantly emerging in response to evolving economic conditions and regulations. Focusing on recent developments in the field, American-Style Derivatives provides an extensive treatment of option pricing with an emphasis on the valuation of American options on dividend-paying assets. The book begins with a review of valuation principles for European contingent claims in a financial market in which the underlying asset price follows an Itô process and the interest rate is stochastic and then extends the analysis to American contingent claims. In this context the author lays out the basic valuation principles for American claims and describes instructive representation formulas for their prices. The results are applied to standard American options in the Black-Scholes market setting as well as to a variety of exotic contracts such as barrier, capped, and multi-asset options. He also reviews numerical methods for option pricing and compares their relative performance. The author explains all the concepts using standard financial terms and intuitions and relegates proofs to appendices that can be found at the end of each chapter. The book is written so that the material is easily accessible not only to those with a background in stochastic processes and/or derivative securities, but also to those with a more limited exposure to those areas. Written by two of the most distinguished finance scholars in the industry, this introductory textbook on derivatives and risk management is highly accessible in terms of the concepts as well as the mathematics. With its economics perspective, this rewritten and streamlined second edition textbook, is closely connected to real markets, and: Beginning at a level that is comfortable to lower division college students, the book gradually develops the content so that its lessons can be profitably used by business majors, arts, science, and engineering graduates as well as MBAs who would work in the finance industry. Supplementary materials are available to instructors who adopt this textbook for their courses. These include: Solutions Manual with detailed solutions to nearly 500 end-of-chapter questions and problems PowerPoint slides and a Test Bank for adopters PRICED! In line with current teaching trends, we have woven spreadsheet applications throughout the text. Our aim is for students to achieve self-sufficiency so that they can generate all the models and graphs in this book via a spreadsheet software, Priced! The proliferation of financial derivatives over the past decades, options in particular, has underscored the increasing importance of derivative pricing literacy among students, researchers, and practitioners. Derivative Pricing: A Problem-Based Primer demystifies the essential derivative pricing theory by adopting a mathematically rigorous yet widely accessible pedagogical approach that will appeal to a wide variety of audience. Abandoning the traditional “black-box” approach or theorists’ ”pedantic” approach, this textbook provides readers with a solid understanding of the fundamental mechanism of derivative pricing methodologies and their underlying theory through a diversity of illustrative examples. The abundance of exercises and problems makes the book well-suited as a text for advanced undergraduates, beginning graduates as well as a reference for professionals and researchers who need a thorough understanding of not only “how,” but also “why” derivative pricing works. It is especially ideal for students who need to prepare for the derivatives portion of the Society of Actuaries Investment and Financial Markets Exam. Features Lucid explanations of the theory and assumptions behind various derivative pricing models. Emphasis on intuitions, mnemonics as well as common fallacies. Interspersed with illustrative examples and end-of-chapter problems that aid a deep understanding of concepts in derivative pricing. Mathematical derivations, while not eschewed, are made maximally accessible. A solutions manual is available for qualified instructors. The Author Ambrose Lo is currently Assistant Professor of Actuarial Science at the University of Hong Kong in 2014, with dependence structures, risk measures, and optimal reinsurance being his research interests. He is a Fellow of the Society of Actuaries (FSA) and a Chartered Enterprise Risk Analyst (CERA). His research papers have been published in top-tier actuarial journals, such as ASTIN Bulletin: The Journal of the International Actuarial Association, Insurance: Mathematics and Economics, and Scandinavian Actuarial Journal. This book helps students, researchers and quantitative finance practitioners to understand both basic and advanced topics in the valuation and modeling of financial and commodity derivatives, their institutional framework and risk management. It provides an overview of the new regulatory requirements such as Basel III, the Fundamental Review of the Trading Book (FRTB), Interest Rate Risk of the Banking Book (IRRBB), or the Internal Capital Assessment Process (ICAAP). The reader will also find a detailed treatment of counterparty credit risk, stochastic volatility estimation methods such as MCMC and Particle Filters, and the concepts of model-free...
volatility, VIX index definition and the related volatility trading. The book can also be used as a teaching material for university derivatives and financial engineering courses. Derivatives by Paul Wilmott provides the most comprehensive and accessible analysis of the art of science in financial modeling available. Wilmott explains and challenges many of the tried and tested models while at the same time offering the reader many new and previously unpublished ideas and techniques. Paul Wilmott has produced a compelling and essential new work in this field. The basics of the established theories—such as stochastic calculus, Black-Scholes, binomial trees and interest-rate models—are covered in clear and precise detail, but Derivatives goes much further. Complex models—such as path dependency, non-probabilistic models, static hedging and quasi-Monte Carlo methods—are introduced and explained to a highly sophisticated level. But theory in itself is not enough, an understanding of the role the techniques play in the daily world of finance is also examined through the use of spreadsheets, examples and the inclusion of Visual Basic programs. The book is divided into six parts: Part One: acts as an introduction and explanation of the fundamentals of derivatives theory and practice, dealing with the equity, commodity and currency worlds. Part Two: takes the mathematics of Part One to a more complex level, introducing the concept of path dependency. Part Three: concerns extensions of the Black-Scholes world, both classic and modern. Part Four: deals with models for fixed-income products. Part Five: describes models for risk management and measurement. Part Six: delivers the numerical methods required for implementing the models described in the rest of the book. Derivatives also includes a CD containing a wide variety of implementation material related to the book in the form of spreadsheets and executable programs together with resource material such as demonstration software and relevant contributed articles. At all times the style remains readable and compelling making Derivatives the essential book on every finance shelf. This book discusses in detail the workings of financial markets and over-the-counter (OTC) markets, focusing specifically on standard and complex derivatives. The subjects covered range from the fundamental products in OTC markets, standard and exotic options, the concepts of value at risk, credit derivatives and risk management, to the applications of option pricing theory to real assets. To further elucidate these complex concepts and formulas, this book also explains in each chapter how theory and practice go hand-in-hand. This volume, a culmination of the author's 12 years of professional experience in the field of finance, derivative analysis and risk management, is a valuable guide for postgraduate students, academics and practitioners in the field of finance. Everything you need to get a grip on the complex world of derivatives. Written by the internationally respected academic/finance professional author team of Sebastien Bossu and Philippe Henrotte, An Introduction to Equity Derivatives is the fully updated and expanded second edition of the popular Finance and Derivatives. It covers all of the fundamentals of quantitative finance clearly and concisely without going into unnecessary technical detail. Designed for both new practitioners and students, it requires no prior background in finance and features twelve chapters of gradually increasing difficulty, beginning with basic principles of interest rate and discounting, and ending with advanced concepts in derivatives, volatility trading, and exotic products. Each chapter includes numerous illustrations and exercises accompanied by the relevant financial theory. Topics covered include present value, arbitrage pricing, portfolio theory, derivatives pricing, delta-hedging, the Black-Scholes model, and more. An excellent resource for finance professionals and investors looking to acquire an understanding of financial derivatives theory and practice. Completely revised and updated with new chapters, including coverage of cutting-edge concepts in volatility trading and exotic products, An accompanying website is available which contains additional resources including powerpoint slides and spreadsheets. Visit www.introeqd.com for details. A timely guide to today's high-yield corporate debt markets, Leveraged Finance has the information you need to succeed in this evolving financial arena.