

Dynamic Hedging Managing Vanilla And Exotic Options Wiley Finance

Foiled by Randomness is a standalone book in Nassim Nicholas Taleb's landmark Incerto series, an investigation of opacity, luck, uncertainty, probability, human error, risk, and decision-making in a world we don't understand. The other books in the series are The Black Swan, Antifragile, Skin in the Game, and The Bed of Procrustes. Foiled by Randomness is the word-of-mouth sensation that will change the way you think about business and the world. Nassim Nicholas Taleb-veteran trader, renowned risk expert, polymathic scholar, erudite raconteur, and New York Times bestselling author of The Black Swan-has written a modern classic that turns on its head what we believe about luck and skill. This book is about luck-or more precisely, about how we perceive and deal with luck in life and business. Set against the backdrop of the most conspicuous forum in which luck is mistaken for skill-the world of trading-Foiled by Randomness provides captivating insight into one of the least understood factors in all our lives. Writing in an entertaining narrative style, the author tackles major intellectual issues related to the underestimation of the influence of happenstance on our lives. The book is populated with an array of characters, some of whom have grasped, in their own way, the significance of chance: the baseball legend Yogi Berra; the philosopher of knowledge Karl Popper; the ancient world's wisest man, Solon; the modern financier George Soros; and the Greek voyager Odysseus. We also meet the fictional Nero, who seems to understand the role of randomness in his professional life but falls victim to his own superstitious foolishness. However, the most recognizable character of all remains unnamed-the lucky fool who happens to be in the right place at the right time-he embodies the "survival of the least fit." Such individuals attract devoted followers who believe in their guru's insights and methods. But no one can replicate what is obtained by chance. Are we capable of distinguishing the fortunate charlatan from the genuine visionary? Must we always try to uncover nonexistent messages in random events? It may be impossible to guard ourselves against the vagaries of the goddess Fortuna, but after reading Foiled by Randomness we can be a little better prepared. Named by Fortune One of the Smartest Books of All Time A Financial Times Best Business Book of the Year

Advanced Guidance to Excelling in the FX Market Once you have a textbook understanding of money market and foreign exchange products, turn to FX Options and Structured Products, Second Edition, for the beyond-vanilla options strategies and traded deals proven superior in today's post-credit crisis trading environment. With the thoroughness and balance of theory and practice only Uwe Wystup can

deliver, this fully revised edition offers authoritative solutions for the real world in an easy-to-access format. See how specific products actually work through detailed case studies featuring clear examples of FX options, common structures and custom solutions. This complete resource is both a wellspring of ideas and a hands-on guide to structuring and executing your own strategies. Distinguish yourself with a valued skillset by: Working through practical and thought-provoking challenges in more than six dozen exercises, all with complete solutions in a companion volume Gaining a working knowledge of the latest, most popular products, including accumulators, kikos, target forwards and more Getting close to the everyday realities of the FX derivatives market through new, illuminating case studies for corporates, municipalities and private banking FX Options and Structured Products, Second Edition is your go-to road map to the exotic options in FX derivatives. The landmark five-book series--all together in one boxed set The Incerto is an investigation of opacity, luck, uncertainty, probability, human error, risk, and decision making when we don't understand the world, expressed in the form of a personal essay with autobiographical sections, stories, parables, and philosophical, historical, and scientific discussions, in non-overlapping volumes that can be accessed in any order. The main thread is that while there is inordinate uncertainty about what is going on, there is great certainty as to what one should do about it. This boxed set includes: FOOLED BY RANDOMNESS THE BLACK SWAN THE BED OF PROCRUSTES ANTIFRAGILE SKIN IN THE GAME This publication aims to fill the void between books providing an introduction to derivatives, and advanced books whose target audience are members of quantitative modelling community. In order to appeal to the widest audience, this publication tries to assume the least amount of prior knowledge. The content quickly moves onto more advanced subjects in order to concentrate on more practical and advanced topics. "A master piece to learn in a nutshell all the essentials about volatility with a practical and lively approach. A must read!" Carole Bernard, Equity Derivatives Specialist at Bloomberg "This book could be seen as the 'volatility bible'!" Markus-Alexander Flesch, Head of Sales & Marketing at Eurex "I highly recommend this book both for those new to the equity derivatives business, and for more advanced readers. The balance between theory and practice is struck At-The-Money" Paul Stephens, Head of Institutional Marketing at CBOE "One of the best resources out there for the volatility community" Paul Britton, CEO and Founder of Capstone Investment Advisors "Colin has managed to convey often complex derivative and volatility concepts with an admirable simplicity, a welcome change from the all-too-dense tomes one usually finds on the subject" Edmund Shing PhD, former Proprietary Trader at BNP Paribas "In a crowded space, Colin has supplied a useful and

concise guide" Gary Delany, Director Europe at the Options Industry Council
Exotic Options Trading
Hedging Commodities
The Volatility Surface
Modelling, Pricing, and Hedging Counterparty Credit Exposure
The Dao of Capital
The Complete Guide to Option Pricing Formulas

"Trading VIX Derivatives will be a comprehensive book covering all aspects of the Chicago Board Options Exchange stock market volatility index. The book will explain the mechanics and strategies associated with trading VIX options, futures, exchange trading notes and options on exchange traded notes. Known as the "fear index" the VIX provides a snapshot of expectations about future stock market volatility and generally moves inversely to the overall stock market. As such, many market participants look at the VIX to help understand market sentiment and predict turning points. With a slew of VIX index trading products now available, there are a variety of strategies traders use to speculate outright on the direction of market volatility or to use the products in conjunction with other instruments to create spread trades or hedge their overall risk. A top instructor at the CBOE's Options Institute, the author will reflect the wide range of uses associated with the VIX and will make the book useful to both new traders and seasoned professionals"--

The book provides detailed descriptions, including more than 550 mathematical formulas, for more than 150 trading strategies across a host of asset classes and trading styles. These include stocks, options, fixed income, futures, ETFs, indexes, commodities, foreign exchange, convertibles, structured assets, volatility, real estate, distressed assets, cash, cryptocurrencies, weather, energy, inflation, global macro, infrastructure, and tax arbitrage. Some strategies are based on machine learning algorithms such as artificial neural networks, Bayes, and k-nearest neighbors. The book also includes source code for illustrating out-of-sample backtesting, around 2,000 bibliographic references, and more than 900 glossary, acronym and math definitions. The presentation is intended to be descriptive and pedagogical and of particular interest to finance practitioners, traders, researchers, academics, and business school and finance program students.

Legendary trader Larry McMillan does it-again-offering his personal options strategies for consistently enhancing trading profits Larry McMillan's name is virtually synonymous with options. This "Trader's Hall of Fame" recipient first shared his personal options strategies and techniques in the original McMillan on Options. Now, in a revised and Second Edition, this indispensable guide to the world of options addresses a myriad of new techniques and methods needed for profiting consistently in today's fast-paced investment arena. This thoroughly new Second Edition features updates in almost every chapter as well as enhanced coverage of many new and increasingly popular products. It also offers McMillan's personal philosophy on options, and reveals many of his previously unpublished personal insights. Readers will soon discover why Yale Hirsch of the Stock Trader's Almanac says, "McMillan is an options guru par excellence." Approaches trading from the viewpoint of market makers and the part they play in pricing, valuing and placing positions. Covers option volatility and pricing, risk analysis, spreads, strategies and tactics for the options trader, focusing on how to work successfully with

market makers. Features a special section on synthetic options and the role of synthetic options market making (a role of increasing importance on the trading floor). Contains numerous graphs, charts and tables.

Theory and Practice

Building Intuition with Delta Hedging and Monte Carlo Simulation using Excel

The New Market Wizards

Energy and Power Risk Management

Statistical Consequences of Fat Tails

Real World Preasymptotics, Epistemology, and Applications

Investing for Financial Storms

Valuation and hedging of financial derivatives are intrinsically linked concepts. Choosing appropriate hedging techniques depends on both the type of derivative and assumptions placed on the underlying stochastic process. This volume provides a systematic treatment of hedging in incomplete markets. Mean-variance hedging under the risk-neutral measure is applied in the framework of exponential $L(r)$ vy processes and for derivatives written on defaultable assets. It is discussed how to complete markets based upon stochastic volatility models via trading in both stocks and vanilla options. Exponential utility indifference pricing is explored via a duality with entropy minimization. Backward stochastic differential equations offer an alternative approach and are moreover applied to study markets with trading constraints including basis risk. A range of optimal martingale measures are discussed including the entropy, Esscher and minimal martingale measures. Quasi-symmetry properties of stochastic processes are deployed in the semi-static hedging of barrier options. This book is directed towards both graduate students and researchers in mathematical finance, and will also provide an orientation to applied mathematicians, financial economists and practitioners wishing to explore recent progress in this field."

A comprehensive book on shipping derivatives and risk management which covers the theoretical and practical aspects of financial risk in shipping. The book provides a thorough overview of the practice of risk management in shipping with the use of theoretical examples and real-life applications.

A groundbreaking collection on currency derivatives, including pricing theory and hedging applications. "David DeRosa has assembled an outstanding collection of works on foreign exchange derivatives. It surely will become required reading for both students and option traders."-Mark B. Garman President, Financial Engineering Associates, Inc. Emeritus Professor, University of California, Berkeley. "A comprehensive selection of the major references in currency option pricing."-Nassim Taleb. Senior trading advisor, Paribas Author, Dynamic Hedging: Managing Vanilla and Exotic Options. "A useful compilation of articles on currency derivatives, going from the essential to the esoteric."-Philippe Jorion Professor of Finance, University of California, Irvine Author, Value at Risk: The New Benchmark for Controlling Market Risk. Every investment practitioner knows of the enormous impact that the Black-Scholes option pricing model has had on investment and derivatives markets. The success of the theory in understanding options on equity, equity index, and fixed- income markets is common knowledge. Yet,

comparatively few professionals are aware that the theory's greatest successes may have been in the derivatives market for foreign exchange. Perhaps this is not surprising because the foreign exchange market is a professional trading arena that is closed virtually to all but institutional participants. Nevertheless, the world's currency markets have proven to be an almost ideal testing and development ground for new derivative instruments. This book contains many of the most important scientific papers that collectively constitute the core of modern currency derivatives theory. What is remarkable is that each and every one of these papers has found its place in the real world of currency derivatives trading. As such, the contributing authors to this volume can properly claim to have been codevelopers of this new derivatives market, having worked in de facto partnership with the professional traders in the dealing rooms of London, New York, Tokyo, and Singapore. The articles in this book span the entire currency derivatives field: forward and futures contracts, vanilla currency puts and calls, models for American exercise currency options, options on currencies with bounded exchange rate regimes, currency futures options, the term and strike structure of implied volatility, jump and stochastic volatility option pricing models, barrier options, Asian options, and various sorts of quanto options.

The Volatility Smile The Black-Scholes-Merton option model was the greatest innovation of 20th century finance, and remains the most widely applied theory in all of finance. Despite this success, the model is fundamentally at odds with the observed behavior of option markets: a graph of implied volatilities against strike will typically display a curve or skew, which practitioners refer to as the smile, and which the model cannot explain. Option valuation is not a solved problem, and the past forty years have witnessed an abundance of new models that try to reconcile theory with markets. The Volatility Smile presents a unified treatment of the Black-Scholes-Merton model and the more advanced models that have replaced it. It is also a book about the principles of financial valuation and how to apply them. Celebrated author and quant Emanuel Derman and Michael B. Miller explain not just the mathematics but the ideas behind the models. By examining the foundations, the implementation, and the pros and cons of various models, and by carefully exploring their derivations and their assumptions, readers will learn not only how to handle the volatility smile but how to evaluate and build their own financial models. Topics covered include: The principles of valuation Static and dynamic replication The Black-Scholes-Merton model Hedging strategies Transaction costs The behavior of the volatility smile Implied distributions Local volatility models Stochastic volatility models Jump-diffusion models The first half of the book, Chapters 1 through 13, can serve as a standalone textbook for a course on option valuation and the Black-Scholes-Merton model, presenting the principles of financial modeling, several derivations of the model, and a detailed discussion of how it is used in practice. The second half focuses on the behavior of the volatility smile, and, in conjunction with the first half, can be used for as the basis for a more advanced course.

Shipping Derivatives and Risk Management

Option Volatility and Pricing: Advanced Trading Strategies and Techniques, 2nd Edition

Managing Vanilla and Exotic Options

Safe Haven

Advanced Equity Derivatives

Pricing and Hedging of Financial Derivatives

A Practitioner's Guide

Smile Pricing Explained provides a clear and thorough explanation of the concepts of smile modelling that are at the forefront of derivatives pricing. The key models used in practice are covered, together with numerical techniques and calibration.

This book is an invaluable resource of hedging case studies and examples, explaining with clarity and coherence how various instruments such as futures and options - are used in different market scenarios to contain, control and eliminate price risk exposure. It elucidates hedging transactions and provides a systematic, comprehensive view on hedge performance. When it comes to hedging specifically, great effort has been employed to create new instruments and concepts that will prove to be superior to classic interpretations. The concept of hedge patterns - introduced here - proves it is possible to tabulate a hedging strategy and illustrate it with diagrams, so each example is shown visually with the result of radical clarity. A compelling visual pattern is also attached to give you the ability to compare different solutions and apply a best-fit hedging strategy in real-world situations. A diverse range of transactions showing the ultimate payoff profiles and performance metrics are included. These have been designed to achieve - to convey the necessary skills to allow business and risk management teams to develop proper hedging mechanisms and apply them in practice.

Packed with insights, Lorenzo Bergomi's Stochastic Volatility Modeling explains how stochastic volatility is used to address issues in the modeling of derivatives, including: Which trading issues do we tackle with stochastic volatility? How do we design models? What is their relevance? How do we tell which models are usable and when does c

This book provides a hands-on, practical guide to understanding derivatives pricing. Aimed at the less quantitative practitioner, it offers a balanced account of options, Greeks and hedging techniques avoiding the complicated mathematics inherent to many texts, and focusing on modelling, market practice and intuition.

Economic and Financial Modeling with Mathematica®

Positional Option Trading

FX Derivatives Trader School

151 Trading Strategies

McMillan on Options

New Developments in Modeling, Pricing, and Hedging

Austrian Investing in a Distorted World

Cut risk and generate profit even after the market drops The Second Leg Down offers practical approaches to profiting after a market event. Written by a specialist in global

macro, volatility and hedging overlay strategies, this book provides in-depth insight into surviving in a volatile environment. Historical back tests and scenario diagrams illustrate a variety of strategies for offsetting portfolio risks with after-the-fact options hedging, and the discussion explores how a mixture of trend following and contrarian futures strategies can be beneficial. Without a rational analysis-based approach, investors often find themselves having to cut risk and buy protection just as options are at their most over-priced. This book provides practical strategies, expert analysis and the knowledge base to assist you in recovering your portfolio. Hedging strategies are often presented as expensive and unnecessary, especially during a bull market. When equity indices and other unstable assets drop, they find themselves stuck - hedging is now at its most expensive, but it is imperative to hedge or face liquidation. This book shows you how to salvage the situation, with strategies backed by expert analysis. Identify the right hedges during high volatility Generate attractive risk-adjusted returns Learn new strategies for offsetting risk Know your options for when losses have already occurred Imagine this scenario: you've incurred significant losses, you're approaching risk limits, you must cut risk immediately, yet slashing positions would damage the portfolio - what do you do? The Second Leg Down is your emergency hotline, with practical strategies for dire conditions.

Praise for THE NEW MARKET WIZARDS "Jack Schwager simply writes the best books about trading I've ever read. These interviews always give me a lot to think about. If you like learning about traders and trading, you'll find that reading this book is time well spent." -Richard Dennis, President, The Dennis Trading Group, Inc. "Jack Schwager's deep knowledge of the markets and his extensive network of personal contacts throughout the industry have set him apart as the definitive market chronicler of our age." -Ed Seykota "Very interesting indeed!" -John Train, author of The Money Masters "Successful trading demands longtime experience because it requires firsthand knowledge. If there is a shortcut to this requirement, however, it is in reading about the experiences of others. Jack Schwager's book provides that shortcut. If you find yourself sweating upon occasion as you read, then you're as close to the trading experience as you can get without

actually doing it yourself." -Robert R. Prechter, Jr., editor, *The Elliott Wave Theorist*

THE NEW MARKET WIZARDS Some traders distinguish themselves from the herd. These supertraders make millions of dollars-sometimes in hours-and consistently outperform their peers. As he did in his acclaimed national bestseller, *Market Wizards*, Jack Schwager interviews a host of these supertraders, spectacular winners whose success occurs across a spectrum of financial markets. These traders use different methods, but they all share an edge. How do they do it? What separates them from the others? What can they teach the average trader or investor? In *The New Market Wizards*, these wildly successful traders relate the financial strategies that have rocketed them to success, as well as the embarrassing losses that have proven them all too human. Meet the Wizards of Wall Street: * Stan Druckenmiller, who, as manager of the Soros Quantum Fund, realized an average annual return of more than 38 percent on assets ranging between \$2.0 and \$3.5 billion * William Eckhardt, a mathematician who, in collaboration with trader Richard Dennis, selected and trained the now-legendary circle known as the Turtles * Bill Lipschutz, a former architect who, for eight years, was Salomon Brothers' largest and most successful currency trader * Blair Hull, a one-time blackjack player who began an options trading company with Asking the questions that readers with an interest in the financial markets would love to pose to the financial superstars, and filled with candid appraisals, *The New Market Wizards* takes its place as a classic.

The book investigates the misapplication of conventional statistical techniques to fat tailed distributions and looks for remedies, when possible. Switching from thin tailed to fat tailed distributions requires more than "changing the color of the dress."

Traditional asymptotics deal mainly with either $n=1$ or $n=\infty$, and the real world is in between, under the "laws of the medium numbers"-which vary widely across specific distributions. Both the law of large numbers and the generalized central limit mechanisms operate in highly idiosyncratic ways outside the standard Gaussian or Levy-Stable basins of convergence. A few examples: - The sample mean is rarely in line with the population mean, with effect on "naïve empiricism," but can be sometimes be estimated via parametric methods. - The "empirical distribution" is rarely empirical. - Parameter uncertainty has

compounding effects on statistical metrics. - Dimension reduction (principal components) fails. - Inequality estimators (Gini or quantile contributions) are not additive and produce wrong results. - Many "biases" found in psychology become entirely rational under more sophisticated probability distributions. - Most of the failures of financial economics, econometrics, and behavioral economics can be attributed to using the wrong distributions. This book, the first volume of the Technical Incerto, weaves a narrative around published journal articles.

Written by an experienced trader and consultant, Frans de Weert's Exotic Options Trading offers a risk-focused approach to the pricing of exotic options. By giving readers the necessary tools to understand exotic options, this book serves as a manual to equip the reader with the skills to price and risk manage the most common and the most complex exotic options. De Weert begins by explaining the risks associated with trading an exotic option before dissecting these risks through a detailed analysis of the actual economics and Greeks rather than solely stating the mathematical formulae. The book limits the use of mathematics to explain exotic options from an economic and risk perspective by means of real life examples leading to a practical interpretation of the mathematical pricing formulae. The book covers conventional options, digital options, barrier options, cliquets, quanto options, outperformance options and variance swaps, and explains difficult concepts in simple terms, with a practical approach that gives the reader a full understanding of every aspect of each exotic option. The book also discusses structured notes with exotic options embedded in them, such as reverse convertibles, callable and puttable reverse convertibles and autocallables and shows the rationale behind these structures and their associated risks. For each exotic option, the author makes clear why there is an investor demand; explains where the risks lie and how this affects the actual pricing; shows how best to hedge any vega or gamma exposure embedded in the exotic option and discusses the skew exposure. By explaining the practical implications for every exotic option and how it affects the price, in addition to the necessary mathematical derivations and tools for pricing exotic options, Exotic Options Trading removes the mystique surrounding exotic options in order to give the reader a

full understanding of every aspect of each exotic option, creating a useable tool for dealing with exotic options in practice. "Although exotic options are not a new subject in finance, the coverage traditionally afforded by many texts is either too high level or overly mathematical. De Weert's exceptional text fills this gap superbly. It is a rigorous treatment of a number of exotic structures and includes numerous examples to clearly illustrate the principles. What makes this book unique is that it manages to strike a fantastic balance between the theory and actual trading practice. Although it may be something of an overused phrase to describe this book as compulsory reading, I can assure any reader they will not be disappointed." –Neil Schofield, Training Consultant and author of *Commodity Derivatives: Markets and Applications* "Exotic Options Trading does an excellent job in providing a succinct and exhaustive overview of exotic options. The real edge of this book is that it explains exotic options from a risk and economical perspective and provides a clear link to the actual profit and pricing formulae. In short, a must read for anyone who wants to get deep insights into exotic options and start trading them profitably." –Arturo Bignardi

Fooled by Randomness

Incerto

Trading and Risk Analysis for the Financial and Commodity Option Markets

Option Market Making

Incerto 4-Book Bundle

Risk-Neutral Valuation

The Volatility Smile

A detailed, one-stop guide for experienced options traders *Positional Option Trading* is a rigorous, professional-level guide on sophisticated techniques from professional trader and quantitative analyst Euan Sinclair. The author has over two decades of high-level option trading experience. He has written this book specifically for professional options traders who have outgrown more basic trading techniques and are searching for in-depth information suitable for advanced trading. Custom-tailored to respond to the volatile option trading environment, this expert guide stresses the importance of finding a valid edge in situations where risk is usually overwhelmed by uncertainty and unknowability. Using examples of edges such as the volatility premium, term-structure premia and earnings effects, the author shows how to find valid trading ideas and details the decision process for choosing an option structure that best exploits the advantage. Advanced topics include a quantitative approach for directionally trading options, the robustness of the Black Scholes Merton model, trade sizing for option portfolios,

robust risk management and more. This book: Provides advanced trading techniques for experienced professional traders Addresses the need for in-depth, quantitative information that more general, intro-level options trading books do not provide Helps readers to master their craft and improve their performance Includes advanced risk management methods in option trading No matter the market conditions, Positional Option Trading is an important resource for any professional or advanced options trader.

Praise for The Volatility Surface "I'm thrilled by the appearance of Jim Gatheral's new book The Volatility Surface. The literature on stochastic volatility is vast, but difficult to penetrate and use. Gatheral's book, by contrast, is accessible and practical. It successfully charts a middle ground between specific examples and general models--achieving remarkable clarity without giving up sophistication, depth, or breadth."

--Robert V. Kohn, Professor of Mathematics and Chair, Mathematical Finance Committee, Courant Institute of Mathematical Sciences, New York University "Concise yet comprehensive, equally attentive to both theory and phenomena, this book provides an unsurpassed account of the peculiarities of the implied volatility surface, its consequences for pricing and hedging, and the theories that struggle to explain it."

--Emanuel Derman, author of My Life as a Quant "Jim Gatheral is the wildest practitioner in the business. This very fine book is an outgrowth of the lecture notes prepared for one of the most popular classes at NYU's esteemed Courant Institute. The topics covered are at the forefront of research in mathematical finance and the author's treatment of them is simply the best available in this form." --Peter Carr, PhD,

head of Quantitative Financial Research, Bloomberg LP Director of the Masters Program in Mathematical Finance, New York University "Jim Gatheral is an acknowledged master of advanced modeling for derivatives. In The Volatility Surface he reveals the secrets of dealing with the most important but most elusive of financial quantities, volatility." --Paul Wilmott, author and mathematician "As a teacher in the field of mathematical finance, I welcome Jim Gatheral's book as a significant development. Written by a Wall Street practitioner with extensive market and teaching experience, The Volatility Surface gives students access to a level of knowledge on derivatives which was not previously available. I strongly recommend it." --Marco Avellaneda, Director, Division of Mathematical Finance Courant Institute, New York University

"Jim Gatheral could not have written a better book." --Bruno Dupire, winner of the 2006 Wilmott Cutting Edge Research Award Quantitative Research, Bloomberg LP

Dynamic Hedging Managing Vanilla and Exotic Options John Wiley & Sons

In Advanced Equity Derivatives: Volatility and Correlation, Sébastien Bossu reviews and explains the advanced concepts used for pricing and hedging equity exotic derivatives. Designed for financial modelers, option traders and sophisticated investors, the content covers the most important theoretical and practical extensions of the Black-Scholes model. Each chapter includes numerous illustrations and a short selection of problems, covering key topics such as implied volatility surface models, pricing with implied distributions, local volatility models, volatility derivatives, correlation measures, correlation trading, local correlation models and stochastic correlation. The author has a dual professional and academic background, making Advanced Equity Derivatives: Volatility and Correlation the perfect reference for quantitative researchers and mathematically savvy finance professionals looking to acquire an in-depth understanding of equity exotic derivatives pricing and hedging.

Smile Pricing Explained

Principles, Practices, and Strategies for Financial Markets

Fooled by Randomness, The Black Swan, The Bed of Procrustes, Antifragile

The Second Leg Down

A Guide to Structuring, Pricing and Trading
Hedging

A Technical Guide

A top options trader details a practical approach for pricing and trading options in any market condition. The options market is always changing, and in order to keep up with it you need the greeks—delta, gamma, theta, vega, and rho—which are the best techniques for valuing options and executing trades regardless of market conditions. In the Second Edition of Trading Options Greeks, veteran options trader Dan Pasarelli puts these tools in perspective by offering fresh insights on option trading and valuation. An essential guide for both professional and aspiring traders, this book explains the greeks in a straightforward and accessible style. It skillfully shows how they can be used to facilitate trading strategies that seek to profit from volatility, time decay, or changes in interest rates. Along the way, it makes use of new charts and examples, and discusses how the proper application of the greeks can lead to more accurate pricing and trading as well as alert you to a range of other opportunities. Completely updated with new material Information on spreads, put-call parity and synthetic options, trading volatility, and advanced option trading is also included Explores how to exploit the dynamics of option pricing to improve your trading Having a comprehensive understanding of the greeks is essential to long-term options trading success. Trading Options Greeks, Second Edition shows you how to use the greeks to find better trades, effectively manage them, and ultimately, become more profitable.

Nassim Nicholas Taleb's landmark Incerto series is an investigation of luck, uncertainty, probability, opacity, human error, risk, disorder, and decision-making in a world we don't understand, in nonoverlapping and standalone books. All four volumes—Antifragile, The Black Swan, Fooled by Randomness, and the expanded edition of The Bed of Procrustes, updated with more than 50 percent new material—are now together in one ebook bundle. ANTIFRAGILE "Startling . . . richly crammed with insights, stories, fine phrases and intriguing asides."—The Wall Street Journal Just as human bones get stronger when subjected to stress and tension, many things in life benefit from disorder, volatility, and turmoil. What Taleb has identified and calls "antifragile" is that category of things that not only gain from chaos but need it in order to survive and flourish. The resilient resists shocks and stays the same; the antifragile gets better and better. What is crucial is that the antifragile loves errors, as it incurs small harm and large benefits from them. Spanning politics, urban planning, war, personal finance,

economic systems, and medicine in an interdisciplinary and erudite style, **Antifragile** is a blueprint for living in a Black Swan world. **THE BLACK SWAN** “[A book] that altered modern thinking.”—The Times (London) A black swan is a highly improbable event with three principal characteristics: It is unpredictable; it carries a massive impact; and, after the fact, we concoct an explanation that makes it appear less random and more predictable. The astonishing success of Google was a black swan; so was 9/11. In this groundbreaking and prophetic book, Taleb shows that black swan events underlie almost everything about our world, from the rise of religions to events in our own personal lives, and yet we—especially the experts—are blind to them. **FOOLED BY RANDOMNESS** “[Fooled by Randomness] is to conventional Wall Street wisdom approximately what Martin Luther’s ninety-five theses were to the Catholic Church.”—Malcolm Gladwell, The New Yorker Are we capable of distinguishing the fortunate charlatan from the genuine visionary? Must we always try to uncover nonexistent messages in random events? Fooled by Randomness is about luck: more precisely, about how we perceive luck in our personal and professional experiences. Set against the backdrop of the most conspicuous forum in which luck is mistaken for skill—the markets—Fooled by Randomness is an irreverent, eye-opening, and endlessly entertaining exploration of one of the least understood forces in our lives. **THE BED OF PROCRUSTES** “Taleb’s crystalline nuggets of thought stand alone like esoteric poems.”—Financial Times This collection of aphorisms and meditations expresses Taleb’s major ideas in ways you least expect. The Bed of Procrustes takes its title from Greek mythology: the story of a man who made his visitors fit his bed to perfection by either stretching them or cutting their limbs. With a rare combination of pointed wit and potent wisdom, Taleb plows through human illusions, contrasting the classical views of courage, elegance, and erudition against the modern diseases of nerdiness, philistinism, and phoniness. The recent financial crisis brought to light many of the misunderstandings and misuses of exotic derivatives. With market participants on both the buy and sell-side having been found guilty of not understanding the products they were dealing with, never before has there been a greater need for clarification and explanation. **Exotic Options and Hybrids** is a practical guide to structuring, pricing and hedging complex exotic options and hybrid derivatives that will serve readers through the recent crisis, the road to recovery, the next bull market and beyond. Written by experienced practitioners, it focuses on the three main parts of a derivative’s life: the structuring of a product, its pricing and its hedging. Divided into four parts, the book covers a multitude of structures, encompassing many of the most up-to-

date and promising products from exotic equity derivatives and structured notes to hybrid derivatives and dynamic strategies. Based on a realistic setting from the heart of the business, inside a derivatives operation, the practical and intuitive discussions of these aspects make these exotic concepts truly accessible. Adoptions of real trades are examined in detail, and all of the numerous examples are carefully selected so as to highlight interesting and significant aspects of the business. The introduction of payoff structures is accompanied by scenario analysis, diagrams and lifelike sample term sheets. Readers learn how to spot where the risks lie to pave the way for sound valuation and hedging of such products. There are also questions and accompanying discussions dispersed in the text, each exploited to illustrate one or more concepts from the context in which they are set. The applications, the strengths and the limitations of various models are highlighted, in relevance to the products and their risks, rather than the model implementations. Models are de-mystified in separately dedicated sections, but their implications are alluded to throughout the book in an intuitive and non-mathematical manner. By discussing exotic options and hybrids in a practical, non-mathematical and highly intuitive setting, this book will blast through the misunderstanding of exotic derivatives, enabling practitioners to fully understand and correctly structure, price and hedge these products effectively, and stand strong as the only book in its class to make these “exotic” concepts truly accessible.

As today's preeminent doomsday investor Mark Spitznagel describes his Daoist and roundabout investment approach, “one gains by losing and loses by gaining.” This is Austrian Investing, an archetypal, counterintuitive, and proven approach, gleaned from the 150-year-old Austrian School of economics, that is both timeless and exceedingly timely. In *The Dao of Capital*, hedge fund manager and tail-hedging pioneer Mark Spitznagel—with one of the top returns on capital of the financial crisis, as well as over a career—takes us on a gripping, circuitous journey from the Chicago trading pits, over the coniferous boreal forests and canonical strategists from Warring States China to Napoleonic Europe to burgeoning industrial America, to the great economic thinkers of late 19th century Austria. We arrive at his central investment methodology of Austrian Investing, where victory comes not from waging the immediate decisive battle, but rather from the roundabout approach of seeking the intermediate positional advantage (what he calls *shi*), of aiming at the indirect means rather than directly at the ends. The monumental challenge is in seeing time differently, in a whole new intertemporal dimension, one that is so contrary to our wiring. Spitznagel is the first to condense the theories of

Ludwig von Mises and his Austrian School of economics into a cohesive and—as Spitznagel has shown—highly effective investment methodology. From identifying the monetary distortions and non-randomness of stock market routes (Spitznagel's bread and butter) to scorned highly-productive assets, in Ron Paul's words from the foreword, Spitznagel “brings Austrian economics from the ivory tower to the investment portfolio.” The Dao of Capital provides a rare and accessible look through the lens of one of today's great investors to discover a profound harmony with the market process—a harmony that is so essential today.

How Time, Volatility, and Other Pricing Factors Drive Profits

Exotic Options and Hybrids

Stochastic Volatility Modeling

The Kelly Capital Growth Investment Criterion

Fooled by Randomness, The Black Swan, The Bed of Procrustes, Antifragile, Skin in the Game

Conversations with America's Top Traders

Frequently Asked Questions in Quantitative Finance

Praise for Energy and Power Risk Management "Energy and Power Risk Management identifies and addresses the key issues in the development of the turbulent energy industry and the challenges it poses to market players. An insightful and far-reaching book written by two renowned professionals." -Helyette Geman, Professor of Finance University Paris Dauphine and ESSEC "The most up-to-date and comprehensive book on managing energy price risk in the natural gas and power markets. An absolute imperative for energy traders and energy risk management professionals." -Vincent Kaminski, Managing Director Citadel Investment Group LLC "Eydeland and Wolyniec's work does an excellent job of outlining the methods needed to measure and manage risk in the volatile energy market." -Gerald G. Fleming, Vice President, Head of East Power Trading, TXU Energy Trading "This book combines academic rigor with real-world practicality. It is a must-read for anyone in energy risk management or asset valuation." -Ron Erd, Senior Vice President American Electric Power

WHAT EVERY OPTION TRADER NEEDS TO KNOW. THE ONE BOOK EVERY TRADER SHOULD OWN. The bestselling Option Volatility & Pricing has made Sheldon Natenberg a widely recognized

authority in the option industry. At firms around the world, the text is often the first book that new professional traders are given to learn the trading strategies and risk management techniques required for success in option markets. Now, in this revised, updated, and expanded second edition, this thirty-year trading professional presents the most comprehensive guide to advanced trading strategies and techniques now in print. Covering a wide range of topics as diverse and exciting as the market itself, this text enables both new and experienced traders to delve in detail into the many aspects of option markets, including: The foundations of option theory Dynamic hedging Volatility and directional trading strategies Risk analysis Position management Stock index futures and options Volatility contracts Clear, concise, and comprehensive, the second edition of *Option Volatility & Pricing* is sure to be an important addition to every option trader's library--as invaluable as Natenberg's acclaimed seminars at the world's largest derivatives exchanges and trading firms. You'll learn how professional option traders approach the market, including the trading strategies and risk management techniques necessary for success. You'll gain a fuller understanding of how theoretical pricing models work. And, best of all, you'll learn how to apply the principles of option evaluation to create strategies that, given a trader's assessment of market conditions and trends, have the greatest chance of success. Option trading is both a science and an art. This book shows how to apply both to maximum effect.

It was the end of 2005 when our employer, a major European Investment Bank, gave our team the mandate to compute in an accurate way the counterparty credit exposure arising from exotic derivatives traded by the firm. As often happens, -posure of products such as, for example, exotic interest-rate, or credit derivatives were modelled under conservative assumptions and credit oficers were struggling to assess the real risk. We started with a few models written on spreadsheets, tailored to very specific instruments, and soon it became clear that a more systematic approach was needed. So we wrote some tools that could be used for some classes of relatively simple products. A couple of years later we are now in the process of building a system that will be used to trade and hedge counterparty credit exposure in an accurate way, for all types of derivative products in

all asset classes. We had to overcome problems ranging from modelling in a consistent manner different products booked in different systems and building the appropriate architecture that would allow the computation and pricing of credit exposure for all types of products, to finding the appropriate management structure across Business, Risk, and IT divisions of the firm. In this book we describe some of our experience in modelling counterparty credit exposure, computing credit valuation adjustments, determining appropriate hedges, and building a reliable system.

Mathematica is a computer program (software) for doing symbolic, numeric and graphical analysis of mathematical problems. In the hands of economists, financial analysts and other professionals in econometrics and the quantitative sector of economic and financial modeling, it can be an invaluable tool for modeling and simulation on a large number of issues and problems, besides easily grinding out numbers, doing statistical estimations and rendering graphical plots and visuals. Mathematica enables these individuals to do all of this in a unified environment. This book's main use is that of an applications handbook. Modeling in Economics and Finance with Mathematica is a compilation of contributed papers prepared by experienced, "hands on" users of the Mathematica program.

They come from

Trading VIX Derivatives

Trading Volatility, Correlation, Term Structure and Skew

A practical guide to hedging strategies with futures and options

Strategies for Profiting after a Market Sell-Off

Currency Derivatives

The Hidden Role of Chance in Life and in the Markets

Dynamic Hedging

This volume provides the definitive treatment of fortune's formula or the Kelly capital growth criterion as it is often called. The strategy is to maximize long run wealth of the investor by maximizing the period by period expected utility of wealth with a logarithmic utility function. Mathematical theorems show that only the log utility function maximizes asymptotic long run wealth and minimizes the expected time to arbitrary large goals. In general, the strategy is risky in the short term but as the number of bets increase, the Kelly bettor's wealth tends to be much larger than those with essentially different strategies. So most of the time, the Kelly bettor will have much more wealth than these other bettors but the Kelly strategy can lead to considerable losses a small percent of the time. There are ways to reduce this risk at the cost of

lower expected final wealth using fractional Kelly strategies that blend the Kelly suggested wager with cash. The various classic reprinted papers and the new ones written specifically for this volume cover various aspects of the theory and practice of dynamic investing. Good and bad properties are discussed, as are fixed-mix and volatility induced growth strategies. The relationships with utility theory and the use of these ideas by great investors are featured.

Accompanying CD-ROM contains ... "all pricing formulas, with VBA code and ready-to-use Excel spreadsheets and 3D charts for Greeks (or Option Sensitivities)."--Jacket.

Describes both financial and physical hedging strategies and programs applicable to almost any industry. Shows how to use hedging strategies to capitalize on market volatility, while minimizing the effects of unfavorable market swings. Addresses theories of hedging and cross-hedging, cash-and-carry or "repo" programs, the "perfect hedge," and the hedging paradox and also offers comparative approaches supported by examples.

What is a safe haven? What role should they play in an investment portfolio? Do we use them only to seek shelter until the passing of financial storms? Or are they something more? Contrary to everything we know from modern financial theory, can higher returns actually come as a result of lowering risk? In *Safe Haven*, hedge fund manager Mark Spitznagel—one of the top practitioners of safe haven investing and portfolio risk mitigation in the world—answers these questions and more. Investors who heed the message in this book will never look at risk mitigation the same way again.

Volatility and Correlation

Trading Volatility

FX Options and Structured Products

Trading and Hedging Strategies Using VIX Futures, Options, and Exchange Traded Notes

An Option Greeks Primer

Pricing Theory, Exotic Options, and Hedging Applications

Hedging Derivatives

An essential guide to real-world derivatives trading *FX Derivatives Trader School* is the definitive guide to the technical and practical knowledge required for successful foreign exchange derivatives trading. Accessible in style and comprehensive in coverage, the book guides the reader through both basic and advanced derivative pricing and risk management topics. The basics of financial markets and trading are covered, plus practical derivatives mathematics is introduced with reference to real-world trading and risk management. Derivative contracts are covered in detail from a trader's perspective using risk profiles and pricing under different derivative models. Analysis is approached generically to enable new products to be understood by breaking the risk into fundamental building blocks. To assist with learning, the book also contains Excel practicals which will deepen understanding and help build useful skills. The book covers of a wide variety of topics, including: Derivative exposures within risk management Volatility surface construction Implied volatility and correlation risk Practical tips for students on trading internships and junior traders Market analysis

techniques FX derivatives trading requires mathematical aptitude, risk management skill, and the ability to work quickly and accurately under pressure. There is a tremendous gap between option pricing formulas and the knowledge required to be a successful derivatives trader. FX Derivatives Trader School is unique in bridging that gap.

This second edition - completely up to date with new exercises - provides a comprehensive and self-contained treatment of the probabilistic theory behind the risk-neutral valuation principle and its application to the pricing and hedging of financial derivatives. On the probabilistic side, both discrete- and continuous-time stochastic processes are treated, with special emphasis on martingale theory, stochastic integration and change-of-measure techniques. Based on firm probabilistic foundations, general properties of discrete- and continuous-time financial market models are discussed. Paul Wilmott writes, "Quantitative finance is the most fascinating and rewarding real-world application of mathematics. It is fascinating because of the speed at which the subject develops, the new products and the new models which we have to understand. And it is rewarding because anyone can make a fundamental breakthrough. "Having worked in this field for many years, I have come to appreciate the importance of getting the right balance between mathematics and intuition. Too little maths and you won't be able to make much progress, too much maths and you'll be held back by technicalities. I imagine, but expect I will never know for certain, that getting the right level of maths is like having the right equipment to climb Mount Everest; too little and you won't make the first base camp, too much and you'll collapse in a heap before the top. "Whenever I write about or teach this subject I also aim to get the right mix of theory and practice. Finance is not a hard science like physics, so you have to accept the limitations of the models. But nor is it a very soft science, so without those models you would be at a disadvantage compared with those better equipped. I believe this adds to the fascination of the subject. "This FAQs book looks at some of the most important aspects of financial engineering, and considers them from both theoretical and practical points of view. I hope that you will see that finance is just as much fun in practice as in theory, and if you are reading this book to help you with your job interviews, good luck! Let me know how you get on!"

Destined to become a market classic, Dynamic Hedging is the only practical reference in exotic options hedging and arbitrage for professional traders and money managers. Watch the professionals. From central banks to brokerages to multinationals, institutional investors are flocking to a new generation of exotic and complex options contracts and derivatives. But the promise of ever larger profits also creates the potential for catastrophic trading losses. Now more than ever, the key to trading derivatives lies in implementing preventive risk management techniques that plan for and avoid these appalling downturns. Unlike other books that offer risk management for corporate treasurers, Dynamic Hedging targets the real-world needs of professional traders and money managers. Written by a leading options trader

and derivatives risk advisor to global banks and exchanges, this book provides a practical, real-world methodology for monitoring and managing all the risks associated with portfolio management. Nassim Nicholas Taleb is the founder of Empirica Capital LLC, a hedge fund operator, and a fellow at the Courant Institute of Mathematical Sciences of New York University. He has held a variety of senior derivative trading positions in New York and London and worked as an independent floor trader in Chicago. Dr. Taleb was inducted in February 2001 in the Derivatives Strategy Hall of Fame. He received an MBA from the Wharton School and a Ph.D. from University Paris-Dauphine.

Trading Options Greeks