READ INTEREST RATE MARKETS A PRACTICAL APPROACH TO FIXED INCOME WILEY TRADING FREE

Interest Rate Markets

How to build a framework for forecasting interest rate market movements With trillions of dollars worth of trades conducted every year in everything from U.S. Treasury bonds to mortgage-backed securities, the U.S. interest rate market is one of the largest fixed income markets in the world. Interest Rate Markets: A Practical Approach to Fixed Income details the typical quantitative tools used to analyze rates markets; the range of fixed income products on the cash side; interest rate movements; and, the derivatives side of the business. Emphasizes the importance of hedging and quantitatively managing risks inherent in interest rate trades Details the common trades which can be used by investors to take views on interest rates in an efficient manner, the methods used to accurately set up these trades, as well as common pitfalls and risks?providing examples from previous market stress events such as 2008 Includes exclusive access to the Interest Rate Markets Web site which includes commonly used calculations and trade construction methods Interest Rate Markets helps readers to understand the structural nature of the rates markets and to develop a framework for thinking about these markets intuitively, rather than focusing on mathematical models

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Interest Rate Swaps and Their Derivatives

An up-to-date look at the evolution of interest rate swaps and derivatives Interest Rate Swaps and Derivatives bridges the gap between the theory of these instruments and their actual use in day-to-day life. This comprehensive guide covers the main \"rates\" products, including swaps, options (cap/floors, swaptions), CMS products, and Bermudan callables. It also covers the main valuation techniques for the exotics/structured-notes area, which remains one of the most challenging parts of the market. Provides a balance of relevant theory and real-world trading instruments for rate swaps and swap derivatives Uses simple settings and illustrations to reveal key results Written by an experienced trader who has worked with swaps, options, and exotics With this book, author Amir Sadr shares his valuable insights with practitioners in the field of interest rate derivatives-from traders and marketers to those in operations.

Interest Rate Swaps and Other Derivatives

The first swap was executed over thirty years ago. Since then, the interest rate swaps and other derivative markets have grown and diversified in phenomenal directions. Derivatives are used today by a myriad of institutional investors for the purposes of risk management, expressing a view on the market, and pursuing market opportunities that are otherwise unavailable using more traditional financial instruments. In this volume, Howard Corb explores the concepts behind interest rate swaps and the many derivatives that evolved from them. Corb's book uniquely marries academic rigor and real-world trading experience in a compelling, readable style. While it is filled with sophisticated formulas and analysis, the volume is geared toward a wide range of readers searching for an in-depth understanding of these markets. It serves as both a textbook for students and a must-have reference book for practitioners. Corb helps readers develop an intuitive feel for these products and their use in the market, providing a detailed introduction to more complicated trades and structures. Through examples of financial structuring, readers will come away with an understanding of how derivatives products are created and how they can be deconstructed and analyzed effectively.

Fixed Income Securities

Fixed income practitioners need to understand the conceptualframeworks of their field; to master its quantitative tool-kit; andto be well-versed in its cash-flow and pricing conventions.Fixed Income Securities, Third Edition by Bruce Tuckman andAngel Serrat is designed to balance these three objectives. Thebook presents theory without unnecessary abstraction; quantitativetechniques with a minimum of mathematics; and conventions at auseful level of detail. The book begins with an overview of global fixed income marketsand continues with the fundamentals, namely, arbitrage pricing,interest rates, risk metrics, and term structure models to pricecontingent claims. Subsequent chapters cover individual markets andsecurities: repo, rate and bond forwards and futures, interest rateand basis swaps, credit markets, fixed income options, andmortgage-backed-securities. Fixed Income Securities, Third Edition is full ofexamples, applications, and case studies. Practically everyquantitative concept is illustrated through real market data. Thispractice-oriented approach makes the book particularly useful forthe working professional. This third edition is a considerable revision and expansion ofthe second. Most examples have been updated. The chapters on fixedincome options and mortgage-backed securities have beenconsiderably expanded to include a broader range of securities andvaluation methodologies. Also, three new chapters have been added:the global overview of fixed income markets; a chapter on corporatebonds and credit default swaps; and a chapter on discounting withbases, which is the foundation for the relatively recent practiceof discounting swap cash flows with curves based on money marketrates. [FOR THE UNIVERSITY EDITION] This university edition includes problems which students can useto test and enhance their understanding of the text.

Fixed Income Strategy

Market players put their jobs on the line with every position they take. Any fixed income investor in the circumstance of being granted one wish would probably want to know what interest rates are going to do in the future. Economists and others have constructed models of interest rate behaviour, but no model works in all circumstances. The main aim of this book is to straddle the different worlds of theoretical models and practical market experience, while offering an interdisciplinary framework for fixed income investing and trading. A focussed but very practical approach to fixed-income investment, aimed at practitioner market Contains investment checklists and interviews with market practitioners Offers an interdisciplinary framework for fixed-income investing and trading, and combines worlds of theoretical models and practical market experience

Fixed Income Markets

A comprehensive, in-depth look at global debt capital markets in the post-crisis world Fully updated with comprehensive coverage of the post-crisis debt markets and their impact on key industry issues, Fixed

Income Markets: Management, Trading, and Hedging, Second Edition offers insights into derivative pricing, cross-currency hedging, and new liquidity legislation. Written by Choudhry, Moskovic, and Wong, Fixed Income Markets is an indispensable read for anyone working in bond markets, interest-rate markets, and credit derivatives markets looking to better understand today's debt markets. This acclaimed book takes a unique look into the leading practices in bond markets as well as post-credit-crunch impacts on pricing that are rarely captured in textbooks. The new edition provides expanded coverage on a wide range of topics within hedging, derivatives, bonds, rebalancing, and global debt capital markets. New topics include: Dynamic hedging practices and cross-currency hedging Collateralized and uncollateralized derivatives, and their impact on valuation Callable bonds, pricing, trading, and regulatory aspects related to liquidity Rebalancing as a method for capturing contingencies and other complex imbedded risks As a bonus, the book includes reference information for statistical concepts and fixed income pricing, as well as a full glossary and index. Written in Choudhry's usual accessible style, Fixed Income Markets is a comprehensive and in-depth account of the global debt capital markets in today's post-crisis world.

Trading Fixed Income and FX in Emerging Markets

A practitioner's guide to finding alpha in fixed income trading in emerging markets Emerging fixed income markets are both large and fast growing. China, currently the second largest economy in the world, is predicted to overtake the United States by 2030. Chinese fixed income markets are worth more than $11 trillion USD and are being added to global fixed income indices starting in 2019. Access for foreigners to the Indian fixed income market, valued at almost 1trn USD, is also becoming easier – a trend repeated in emerging markets around the world. The move to include large Emerging Market (EM) fixed income markets into non-EM benchmarks requires non-EM specialists to understand EM fixed income. Trading Fixed Income in Emerging Markets examines the principle drivers for EM fixed income investing. This timely guide suggests a more systematic approach to EM fixed income trading with a focus on practical trading rules on how to generate alpha, assisting EM practitioners to limit market-share losses to passive investment vehicles. The definitive text on trading EM fixed income, this book is heavily data-driven – every trading rule is thoroughly back-tested over the last 10+ years. Case studies help readers identify and benefit from market regularities, while discussions of the business cycle and typical EM events inform and optimise trading strategies. Topics include portfolio construction, how to apply ESG principles to EM and the future of EM investing in the realm of Big Data and machine learning. Written by practitioners for practitioners, this book: Provides effective, immediately-accessible tools Covers all three fixed income asset classes: EMFX, EM local rates and EM credit Thoroughly analyses the impact of the global macro cycle on EM investing Examines the influence of the financial rise of China and its fixed income markets Includes case studies of trades that illustrate how markets typically behave in certain situations The first book of its kind, Trading Fixed Income in Emerging Markets: A Practitioner’s Guide is an indispensable resource for EM fund managers, analysts and strategists, sell-side professionals in EM and non-EM specialists considering activity in emerging markets.

C# for Financial Markets

A practice-oriented guide to using C# to design and program pricing and trading models In this step-by-step guide to software development for financial analysts, traders, developers and quants, the authors show both novice and experienced practitioners how to develop robust and accurate pricing models and employ them in real environments. Traders will learn how to design and implement applications for curve and surface modeling, fixed income products, hedging strategies, plain and exotic option modeling, interest rate options, structured bonds, unfunded structured products, and more. A unique mix of modern software technology and quantitative finance, this book is both timely and practical. The approach is thorough and comprehensive and the authors use a combination of C# language features, design patterns, mathematics and finance to produce efficient and maintainable software. Designed for quant developers, traders and MSc/MFE students, each chapter has numerous exercises and the book is accompanied by a dedicated companion website, http://www.datasimfinancial.com/forum/viewforum.php?f=196&sid=f30022095850dee48c7db5ff62192b34,

providing all source code, alongside audio, support and discussion forums for readers to comment on the code and obtain new versions of the software.

Trading the Fixed Income, Inflation and Credit Markets

Trading the Fixed Income, Inflation and Credit Markets is a comprehensive guide to the most popular strategies that are used in the wholesale financial markets, answering the question: what is the optimal way to express a view on expected market movements? This relatively unique approach to relative value highlights the pricing links between the different products and how these relationships can be used as the basis for a number of trading strategies. The book begins by looking at the main derivative products and their pricing interrelationships. It shows that within any asset class there are mathematical relationships that tie together four key building blocks: cash products, forwards/futures, swaps and options. The nature of these interrelationships means that there may be a variety of different ways in which a particular strategy can be expressed. It then moves on to relative value within a fixed income context and looks at strategies that build on the pricing relationships between products as well as those that focus on how to identify the optimal way to express a view on the movement of the yield curve. It concludes by taking the main themes of relative value and showing how they can be applied within other asset classes. Although the main focus is fixed income the book does cover multiple asset classes including credit and inflation. Written from a practitioner's perspective, the book illustrates how the products are used by including many worked examples and a number of screenshots to ensure that the content is as practical and applied as possible.

Fixed Income Relative Value Analysis

As western governments issue increasing amounts of debt, the fixed income markets have never been more important. Yet the methods for analyzing these markets have failed to keep pace with recent developments, including the deterioration in the credit quality of many sovereign issuers. In Fixed Income Relative Value Analysis, Doug Huggins and Christian Schaller address this gap with a set of analytic tools for assessing value in the markets for government bonds, interest rate swaps, and related basis swaps, as well as associated futures and options. Taking a practitioner’s point of view, the book presents the theory behind market analysis in connection with tools for finding and expressing trade ideas. The extensive use of actual market examples illustrates the ways these analytic tools can be applied in practice. The book covers: Statistical models for quantitative market analysis, in particular mean reversion models and principal component analysis. An in-depth approach to understanding swap spreads in theory and in practice. A comprehensive discussion of the various basis swaps and their combinations. The incorporation of credit default swaps in yield curve analysis. A classification of option trades, with appropriate analysis tools for each category. Fitted curve techniques for identifying relative value among different bonds. A multi-factor delivery option model for bond future contracts. Fixed Income Relative Value Analysis provides an insightful presentation of the relevant statistical and financial theories, a detailed set of statistical and financial tools derived from these theories, and a multitude of actual trades resulting from the application of these tools to the fixed income markets. As such, it’s an indispensable guide for relative value analysts, relative value traders, and portfolio managers for whom security selection and hedging are part of the investment process.

Fixed-Income Securities

This textbook will be designed for fixed-income securities courses taught on MSc Finance and MBA courses. There is currently no suitable text that offers a 'Hull-type' book for the fixed income student market. This book aims to fill this need. The book will contain numerous worked examples, excel spreadsheets, with a building block approach throughout. A key feature of the book will be coverage of both traditional and alternative investment strategies in the fixed-income market, for example, the book will cover the modern strategies used by fixed-income hedge funds. The text will be supported by a set of PowerPoint slides for use by the lecturer First textbook designed for students written on fixed-income securities - a growing market Contains numerous worked examples throughout Includes coverage of important topics often omitted in other books i.e. deriving the zero yield curve, deriving credit spreads, hedging and also covers interest rate and credit derivatives

Interest Rate Risk Modeling

The definitive guide to fixed income valuation and risk analysis The Trilogy in Fixed Income Valuation and Risk Analysiscomprehensively covers the most definitive work on interest raterisk, term structure analysis, and credit risk. The first book oninterest rate risk modeling examines virtually every well-known IRRmodel used for pricing and risk analysis of various fixed incomesecurities and their derivatives. The companion CD-ROM containnumerous formulas and programming tools that allow readers tobetter model risk and value fixed income securities. Thiscomprehensive resource provides readers with the hands-oninformation and software needed to succeed in this financialarena.

Inflation-indexed Securities

The global market for inflation-indexed securities has ballooned in recent years, and this trend is set to continue. This book examines the rationale behind issuance and investment decisions, and details the issues facing anyone who designs indexed securities, illustrating them wherever possible with actual examples from the international capital markets. In particular, an extensive review of indexed debt markets throughout the world is provided - including for the first time, a comprehensive and consistent set of cash flow and price-yield equations for the instruments already in existence in the major bond markets - forming an important reference for those already experienced in the field, as well as practitioners and academics approaching the subject for the first time. The book also provides unique insight into the development of inflation-indexed derivative products, and the analytical tools required to value such instruments.

Valuation of Interest Rate Swaps and Swaptions

Among the major innovations in the financial markets have been interest rate swaps and swapations, instruments which entail having an arrangement to barter differently structured payment flows for a particular period of time. These instruments have furnished portfolio and risk managers and corporate treasurers with a better tool for controlling interest rate risk. Valuation of Interest Rate Swaps and Swapations explains how interest rate swaps are valued and the factors that affect their value-an ideal way to manage interest or income payments. Various valuations approaches and models are covered, with special end-of-chapter questions and solutions included.

Pricing and Trading Interest Rate Derivatives

The most professional and industry relatable text currently available for linear interest rate derivatives. Written by a practicing derivatives portfolio manager with over fifteen years of fixed income trading experience, this book focuses on core trading concepts; pricing, curve building (single and multi-currency), risk, credit and CSAs, regulations, VaR and PCA, volatility, cross-gamma, trade strategy analysis and market moving influences. The book's focus is interest rate swaps and cross-currency swaps, updated for a risk free rate (RFR, such as SOFR and ESTR) framework as opposed to LIBOR. Topics are presented from that perspective, outlining the importance of regulations in an IRD capacity, with volatility and swaptions taught from a practical point of view rather than an overly cumbersome academic one. This third edition (2022) markedly expands the second edition (2017), by not only providing extensive analysis but also building up a modern codebase, step-by-step, in Python. It constructs and solves interest rate curves and goes on to implement risk and cross-gamma calculations, demonstrating the implementation of automatic differentiation for superior efficiency. Read more at https: //github.com/attack68/book_irds3. The treatment of risk is expansive and thorough. The author formally analyses modern market-maker techniques to accurately predict PnL, and successfully implement multiple, consistent perspectives to view all details of risks. Almost everything included here is compulsory knowledge for a modern, successful, swaps trader or interest rate risk portfolio manager. Certainly this book sets the benchmark for the level of expertise that swaps traders should strive for, and the style is aimed at the novice and professional alike.

An Introduction to Financial Markets

COVERS THE FUNDAMENTAL TOPICS IN MATHEMATICS, STATISTICS, AND FINANCIAL MANAGEMENT THAT ARE REQUIRED FOR A THOROUGH STUDY OF FINANCIAL MARKETS This comprehensive yet accessible book introduces students to financial markets and delves into more advanced material at a steady pace while providing motivating examples, poignant remarks, counterexamples, ideological clashes, and intuitive traps throughout. Tempered by real-life cases and actual market structures, An Introduction to Financial Markets: A Quantitative Approach accentuates theory through quantitative modeling whenever and wherever necessary. It focuses on the lessons learned from timely subject matter such as the impact of the recent subprime mortgage storm, the collapse of LTCM, and the harsh criticism on risk management and innovative finance. The book also provides the necessary foundations in stochastic calculus and optimization, alongside financial modeling concepts that are illustrated with relevant and hands-on examples. An Introduction to Financial Markets: A Quantitative Approach starts with a complete overview of the subject matter. It then moves on to sections covering fixed income assets, equity portfolios, derivatives, and advanced optimization models. This book’s balanced and broad view of the state-of-the-art in financial decision-making helps provide readers with all the background and modeling tools needed to make “honest money” and, in the process, to become a sound professional. Stresses that gut feelings are not always sufficient and that “critical thinking” and real world applications are appropriate when dealing with complex social systems involving multiple players with conflicting incentives Features a related website that contains a solution manual for end-of-chapter problems Written in a modular style for tailored classroom use Bridges a gap for business and engineering students who are familiar with the problems involved, but are less familiar with the methodologies needed to make smart decisions An Introduction to Financial Markets: A Quantitative Approach offers a balance between the need to illustrate mathematics in action and the need to understand the real life context. It is an ideal text for a first course in financial markets or investments for business, economic, statistics, engi\u00adneering, decision science, and management science students.

Fixed Income Markets

A comprehensive, in-depth look at global debt capital markets inthe post-crisis world Fully updated with comprehensive coverage of the post-crisisdebt markets and their impact on key industry issues, FixedIncome Markets: Management, Trading, and Hedging, SecondEdition offers insights into derivative pricing, cross-currencyhedging, and new liquidity legislation. Written by Choudhry,Moskovic, and Wong, Fixed Income Markets is an indispensableread for anyone working in bond markets, interest-rate markets, andcredit derivatives markets looking to better understand today'sdebt markets. This acclaimed book takes a unique look into the leadingpractices in bond markets as well as post-credit-crunch impacts onpricing that are rarely captured in textbooks. The new editionprovides expanded coverage on a wide range of topics withinhedging, derivatives, bonds, rebalancing, and global debt capitalmarkets. New topics include: Dynamic hedging practices and cross-currency hedging Collateralized and uncollateralized derivatives, and theirimpact on valuation Callable bonds, pricing, trading, and regulatory aspectsrelated to liquidity Rebalancing as a method for capturing contingencies and othercomplex imbedded risks As a bonus, the book includes reference information forstatistical concepts and fixed income pricing, as well as a fullglossary and index. Written in Choudhry's usual accessible style,Fixed Income Markets is a comprehensive and in-depth accountof the global debt capital markets in today's post-crisisworld.

Fixed Income Markets and Their Derivatives

Features topics include: -Analysis of Treasury Markets including the auction mechanisms covering discriminatory auctions and the Treasury's experiment with uniform price auction.-Description and analysis of when-issued markets, interdealer broker markets, auctions and the secondary markets.-Extensive coverage of bond mathematics with over 20 complete real-world examples, including the application of bond mathematics to tracing and portfolio management.

Risk Management

Bei Finanzinstituten spielt das Risikomanagement eine immer größere Rolle. Dieses Buch wendet die neuesten Techniken zur Erstellung von Finanzmodellen auf das Risikomanagement festverzinslicher Wertpapiere an. Geschrieben von zwei erfahrenen Experten im Bereich Risikomanagement, bietet dieser Band eine faszinierende Mischung aus Wirtschaft und Finanzen, Mathematik und gesundem Menschenverstand.

Bond Math

A guide to the theory behind bond math formulas Bond Math explores the ideas and assumptions behind commonly used statistics on risk and return for individual bonds and on fixed income portfolios. But this book is much more than a series of formulas and calculations; the emphasis is on how to think about and use bond math. Author Donald J. Smith, a professor at Boston University and an experienced executive trainer, covers in detail money market rates, periodicity conversions, bond yields to maturity and horizon yields, the implied probability of default, after-tax rates of return, implied forward and spot rates, and duration and convexity. These calculations are used on traditional fixed-rate and zero-coupon bonds, as well as floating-rate notes, inflation-indexed securities, and interest rate swaps. Puts bond math in perspective through discussions of bond portfolios and investment strategies. Critiques the Bloomberg Yield Analysis (YA) page, indicating which numbers provide reliable information for making decisions about bonds, which are meaningless data, and which can be very misleading to investors Filled with thought-provoking insights and practical advice, this book puts the intricacies of bond math into a clear and logical order.

FX Derivatives Trader School

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.

Pricing and Hedging Financial Derivatives

The 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-today 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 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 payout 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

Interest Rate Risk in the Banking Book

Introduces practical approaches for optimizing management and hedging of Interest Rate Risk in the Banking Book (IRRBB) driven by fast evolving regulatory landscape and market expectations. Interest rate risk in the banking book (IRRBB) gained its importance through the regulatory requirements that have been growing and guiding the banking industry for the last couple of years. The importance of IRRBB is shifting for banks, away from 'just' a regulatory requirement to having an impact on the overall profitability of a financial institution. Interest Rate Risk in the Banking Book sheds light on the best practices for managing this importance risk category and provides detailed analysis of the hedging strategies, practical examples, and case studies based on the author's experience. This handbook is rich in practical insights on methodological approach and contents of ALCO report, IRRBB policy, ICAAP, Risk Appetite Statement (RAS) and model documentation. It is intended for the Treasury, Risk and Finance department and is helpful in improving and optimizing their IRRBB framework and strategy. By the end of this IRRBB journey, the reader will be equipped with all the necessary tools to build a proactive and compliant framework within a financial institution. Gain an updated understanding of the evolving regulatory landscape for IRRBB Learn to apply maturity gap analysis, sensitivity analysis, and the hedging strategy in banking contexts • Understand how customer behavior impacts interest rate risk and how to manage the consequences Examine case studies illustrating key IRRBB exposures and their implications Written by London market risk expert Beata Lubinska, Interest Rate Risk in the Banking Book is the authoritative resource on this evolving topic.

Handbook of Market Risk

A ONE-STOP GUIDE FOR THE THEORIES, APPLICATIONS, AND STATISTICAL METHODOLOGIES OF MARKET RISK Understanding and investigating the impacts of market risk on the financial landscape is crucial in preventing crises. Written by a hedge fund specialist, the Handbook of Market Risk is the comprehensive guide to the subject of market risk. Featuring a format that is accessible and convenient, the handbook employs numerous examples to underscore the application of the material in a real-world setting. The book starts by introducing the various methods to measure market risk while continuing to emphasize stress testing, liquidity, and interest rate implications. Covering topics intrinsic to understanding and applying market risk, the handbook features: An introduction to financial markets The historical perspective from market events and diverse mathematics to the value-at-risk Return and volatility estimates Diversification, portfolio risk, and efficient frontier The Capital Asset Pricing Model and the Arbitrage Pricing Theory The use of a fundamental multi-factors model Financial derivatives instruments Fixed income and interest rate risk Liquidity risk Alternative investments Stress testing and back testing Banks and Basel II/III The Handbook of Market Risk is a must-have resource for financial engineers, quantitative analysts, regulators, risk managers in investments banks, and large-scale consultancy groups advising banks on internal systems. The handbook is also an excellent text for academics teaching postgraduate courses on financial methodology.

Optimization-Based Models for Measuring and Hedging Risk in Fixed Income Markets

The global fixed income market is an enormous financial market whose value by far exceeds that of the public stock markets. The interbank market consists of interest rate derivatives, whose primary purpose is to manage interest rate risk. The credit market primarily consists of the bond market, which links investors to companies, institutions, and governments with borrowing needs. This dissertation takes an optimization perspective upon modeling both these areas of the fixed-income market. Legislators on the national markets require financial actors to value their financial assets in accordance with market prices. Thus, prices of many assets, which are not publicly traded, must be determined mathematically. The financial quantities needed for pricing are not directly observable but must be measured through solving inverse optimization problems. These measurements are based on the available market prices, which are observed with various degrees of measurement noise. For the interbank market, the relevant financial quantities consist of term structures of interest rates, which are curves displaying the market rates for different maturities. For the bond market, credit risk is an additional factor that can be modeled through default intensity curves and term structures of recovery rates in case of default. By formulating suitable optimization models, the different underlying financial quantities can be measured in accordance with observable market prices, while conditions for economic realism are imposed. Measuring and managing risk is closely connected to the measurement of the underlying financial quantities. Through a data-driven method, we can show that six systematic risk factors can be used to explain almost all variance in the interest rate curves. By modeling the dynamics of these six risk factors, possible outcomes can be simulated in the form of term structure scenarios. For short-term simulation horizons, this results in a representation of the portfolio value distribution that is consistent with the realized outcomes from historically observed term structures. This enables more accurate measurements of interest rate risk, where our proposed method exhibits both lower risk and lower pricing errors compared to traditional models. We propose a method for decomposing changes in portfolio values for an arbitrary portfolio into the risk factors that affect the value of each instrument. By demonstrating the method for the six systematic risk factors identified for the interbank market, we show that almost all changes in portfolio value and portfolio variance can be attributed to these risk factors. Additional risk factors and approximation errors are gathered into two terms, which can be studied to ensure the quality of the performance attribution, and possibly improve it. To eliminate undesired risk within trading books, banks use hedging. Traditional methods do not take transaction costs into account. We, therefore, propose a method for managing the risks in the interbank market through a stochastic optimization model that considers transaction costs. This method is based on a scenario approximation of the optimization problem where the six systematic risk factors are simulated, and the portfolio variance is weighted against the transaction costs. This results in a method that is preferred over the traditional methods for all risk-averse investors. For the credit market, we use data from the bond market in combination with the interbank market to make accurate measurements of the financial quantities. We address the notoriously difficult problem of separating default risk from recovery risk. In addition to the previous identified six systematic risk factors for risk-free interests, we identify four risk factors that explain almost all variance in default intensities, while a single risk factor seems sufficient to model the recovery risk. Overall, this is a higher number of risk factors than is usually found in the literature. Through a simple model, we can measure the variance in bond prices in terms of these systematic risk factors, and through performance attribution, we relate these values to the empirically realized variances from the quoted bond prices. De globala ränte- och kreditmarknaderna är enorma finansiella marknader vars sammanlagda värden vida överstiger de publika aktiemarknadernas. Räntemarknaden består av räntederivat vars främsta användningsområde är hantering av ränterisker. Kreditmarknaden utgörs i första hand av obligationsmarknaden som syftar till att förmedla pengar från investerare till företag, institutioner och stater med upplåningsbehov. Denna avhandling fokuserar på att utifrån ett optimeringsperspektiv modellera både ränte- och obligationsmarknaden. Lagstiftarna på de nationella marknaderna kräver att de finansiella aktörerna värderar sina finansiella tillgångar i enlighet med marknadspriser. Därmed måste priserna på många instrument, som inte handlas publikt, beräknas matematiskt. De finansiella storheter som krävs för denna prissättning är inte direkt observerbara, utan måste mätas genom att lösa inversa optimeringsproblem. Dessa mätningar görs utifrån tillgängliga marknadspriser, som observeras med varierande grad av mätbrus. För räntemarknaden utgörs de relevanta finansiella storheterna av räntekurvor som åskådliggör marknadsräntorna för olika löptider. För obligationsmarknaden utgör kreditrisken en ytterligare faktor som modelleras via fallissemangsintensitetskurvor och kurvor kopplade till förväntat återvunnet kapital vid eventuellt fallissemang. Genom att formulera lämpliga optimeringsmodeller kan de olika underliggande finansiella storheterna mätas i enlighet med observerbara marknadspriser samtidigt som ekonomisk realism eftersträvas. Mätning och hantering av risker är nära kopplat till mätningen av de underliggande finansiella storheterna. Genom en datadriven metod kan vi visa att sex systematiska riskfaktorer kan användas för att förklara nästan all varians i räntekurvorna. Genom att modellera dynamiken i dessa sex riskfaktorer kan tänkbara utfall för räntekurvor simuleras. För kortsiktiga simuleringshorisonter resulterar detta i en representation av fördelningen av portföljvärden som väl överensstämmer med de realiserade utfallen från historiskt observerade räntekurvor. Detta möjliggör noggrannare mätningar av ränterisk där vår föreslagna metod uppvisar såväl lägre risk som mindre prissättningsfel jämfört med traditionella modeller. Vi föreslår en metod för att dekomponera portföljutvecklingen för en godtycklig portfölj till de riskfaktorer som påverkar värdet för respektive instrument. Genom att demonstrera metoden för de sex systematiska riskfaktorerna som identifierats för räntemarknaden visar vi att nästan all portföljutveckling och portföljvarians kan härledas till dessa riskfaktorer. Övriga riskfaktorer och approximationsfel samlas i två termer, vilka kan användas för att säkerställa och eventuellt förbättra kvaliteten i prestationshärledningen. För att eliminera oönskad risk i sina tradingböcker använder banker sig av hedging. Traditionella metoder tar ingen hänsyn till transaktionskostnader. Vi föreslår därför en metod för att hantera riskerna på räntemarknaden genom en stokastisk optimeringsmodell som också tar hänsyn till transaktionskostnader. Denna metod bygger på en scenarioapproximation av optimeringsproblemet där de sex systematiska riskfaktorerna simuleras och portföljvariansen vägs mot transaktionskostnaderna. Detta resulterar i en metod som, för alla riskaverta investerare, är att föredra framför de traditionella metoderna. På kreditmarknaden använder vi data från obligationsmarknaden i kombination räntemarknaden för att göra noggranna mätningar av de finansiella storheterna. Vi angriper det erkänt svåra problemet att separera fallissemangsrisk från återvinningsrisk. Förutom de tidigare sex systematiska riskfaktorerna för riskfri ränta, identifierar vi fyra riskfaktorer som förklarar nästan all varians i fallissemangsintensiteter, medan en enda riskfaktor tycks räcka för att modellera återvinningsrisken. Sammanlagt är detta ett större antal riskfaktorer än vad som brukar användas i litteraturen. Via en enkel modell kan vi mäta variansen i obligationspriser i termer av dessa systematiska riskfaktorer och genom prestationshärledningen relatera dessa värden till de empiriskt realiserade varianserna från kvoterade obligationspriser.

STIR Futures

Short term interest rate futures are one of the largest financial markets in the world. The two main contracts, the Eurodollar and Euribor, regularly trade in excess of one trillion dollars and euros of US and European interest rates each day. This book explains what they are, how they can be traded, and where the profit opportunities are.

Alpha Trading

From a leading trading systems developer, how to make profitable trades when there are no obvious trends How does a trader find alpha when markets make no sense, when price shocks cause diversification to fail, and when it seems impossible to hedge? What strategies should traders, long conditioned to trend trading, deploy? In Alpha Trading: Profitable Strategies That Remove Directional Risk, author Perry Kaufman presents strategies and systems for profitably trading in directionless markets and in those experiencing constant price shocks. The book Details how to exploit new highs and lows Describes how to hedge primary risk components, find robustness, and craft a diversification program Other titles by Kaufman: New Trading Systems and Methods, 4th Edition and A Short Course in Technical Trading, both by Wiley Given Kaufman's 30 years of experience trading in almost every kind of market, his Alpha Trading will be a welcome addition to the trading literature of professional and serious individual traders for years to come.

Global Macro Trading

Brings global macro trading down to earth for individual and professional traders, investors and asset managers, as well being a useful reference handbook Global Macro Trading is an indispensable guide for traders and investors who want to trade Global Macro – it provides Trading Strategies and overviews of the four asset classes in Global Macro which include equities, currencies, fixed income and commodities. Greg Gliner, who has worked for some of the largest global macro hedge funds, shares ways in which an array of global macro participants seek to capitalize on this strategy, while also serving as a useful reference tool. Whether you are a retail investor, manage your own portfolio, or a finance professional, this book equips you with the knowledge and skills you need to capitalize in global macro. Provides a comprehensive overview of global macro trading, which consists of portfolio construction, risk management, biases and essentials to query building Equips the reader with introductions and tools for each of the four asset classes; equities, currencies, fixed income and commodities Arms you with a range of powerful global-macro trading and investing strategies, that include introductions to discretionary and systematic macro Introduces the role of central banking, importance of global macroeconomic data releases and demographics, as they relate to global macro trading

Fixed-Income Securities and Derivatives Handbook

The definitive guide to fixed-come securities-revised to reflect today's dynamic financial environment The Second Edition of the Fixed-Income Securities and Derivatives Handbook offers a completely updated and revised look at an important area of today's financial world. In addition to providing an accessible description of the main elements of the debt market, concentrating on the instruments used and their applications, this edition takes into account the effect of the recent financial crisis on fixed income securities and derivatives. As timely as it is timeless, the Second Edition of the Fixed-Income Securities and Derivatives Handbook includes a wealth of new material on such topics as covered and convertible bonds, swaps, synthetic securitization, and bond portfolio management, as well as discussions regarding new regulatory twists and the evolving derivatives market. Offers a more detailed look at the basic principles of securitization and an updated chapter on collateralized debt obligations Covers bond mathematics, pricing and yield analytics, and term structure models Includes a new chapter on credit analysis and the different metrics used to measure bond-relative value Contains illustrative case studies and real-world examples of the topics touched upon throughout the book Written in a straightforward and accessible style, Moorad Choudhry's new book offers the ideal mix of practical tips and academic theory within this important field.

Analysing and Interpreting the Yield Curve

Understand and interpret the global debt capital markets Now in a completely updated and expanded edition, this is a technical guide to the yield curve, a key indicator of the global capital markets and the understanding and accurate prediction of which is critical to all market participants. Being able to accurately and timely predict the shape and direction of the curve permits practitioners to consistently outperform the market. Analysing and Interpreting the Yield Curve, 2nd Edition describes what the yield curve is, explains what it tells participants, outlines the significance of certain shapes that the curve assumes and, most importantly, demonstrates what factors drive it and how it is modelled and used. Covers the FTP curve, the multi-currency curve, CSA, OIS-Libor and 3-curve models Gets you up to speed on the secured curve Describes application of theoretical versus market curve relative value trading Explains the concept of the risk-free rate Accessible demonstration of curve interpolation best-practice using cubic spline, Nelson-Siegel and Svensson 94 models This advanced text is essential reading for traders, asset managers, bankers and financial analysts, as well as graduate students in banking and finance.

Property Finance

A unique, international approach to optimal real estate financing Property Finance is an authoritative guide to both the financial and legal issues surrounding real estate financing. Unique in its exclusive focus on the topic, this book builds from a solid theoretical foundation to provide practical tools and real-world solutions. Beginning with a discussion of the general issues encountered in real estate finance from an international perspective, the authors delve into country-specific information and set out the legal peculiarities of eight important countries (Germany, France, Italy, Spain, China, India, England and Wales) by asking questions of relevance to the leading local law firms specializing in real estate financing. The reader may thus consider in greater depth the problems relating to any given country and compare and contrast the positions under different legal systems. Examples with numerical calculations and contract excerpts enhance the explanations presented, and are immediately followed by practical case studies that illustrate the mechanisms at work. The companion website features downloadable spreadsheets used in the examples, power point presentations, as well as real estate news and more. Property financing entails many sources of capital, including both debt and equity resources as well as hybrid forms like preferred equity and mezzanine debt. Knowing how to work with these avenues is important to ensuring financial sustainability in real estate assets. Property Finance covers the most common issues encountered, helping readers prepare for and find a way around possible roadblocks. Consider the issues surrounding real estate lending at an international level Compare and contrast the positions under different legal systems Develop an international perspective on cash flows and financing agreements Use powerful tools to structure financing and gauge its effects on property financing The success of a real estate investment is dependent upon optimal financing, and a mere bird's eye view of the topic does not fully prepare investors for issues ahead: Property Finance provides a knowledge-based approach to real estate investment, detailed information and powerful tools.

The Business of Investment Banking

A comprehensive overview of investment banking for professionals and students The investment banking industry has changed dramatically since the 2008 financial crisis. Three of the top five investment banks in the United States have disappeared, while Goldman Sachs and Morgan Stanley have converted to commercial banking charters. This Third Edition of The Business of Investment Banking explains the changes and discusses new opportunities for students and professionals seeking to advance their careers in this intensely competitive field. The recent financial regulation overhaul, including the Dodd-Frank legislation, is changing what investment banks do and how they do it, while the Volcker rule has shaken up trading desks everywhere. This new edition updates investment banking industry shifts in practices, trends, regulations, and statistics Includes new chapters on investment banking in BRIC countries, as Brazil, Russia, India, and China now account for a quarter of the global economy Explains the shift in the listing of securities away from New York to various financial centers around the world, and how major exchanges compete for the same business This new edition, reflecting the current state of the investment banking industry, arrives in time to better serve professionals wanting to advance their careers and students just beginning theirs.

Derivatives

Three experts provide an authoritative guide to the theory and practice of derivatives Derivatives: Theory and Practice and its companion website explore the practical uses of derivatives and offer a guide to the key results on pricing, hedging and speculation using derivative securities. The book links the theoretical and practical aspects of derivatives in one volume whilst keeping mathematics and statistics to a minimum. Throughout the book, the authors put the focus on explanations and applications. Designed as an engaging resource, the book contains commentaries that make serious points in a lighthearted manner. The authors examine the real world of derivatives finance and include discussions on a wide range of topics such as the use of derivatives by hedge funds and the application of strip and stack hedges by corporates, while providing an analysis of how risky the stock market can be for long-term investors, and more. To enhance learning, each chapter contains learning objectives, worked examples, details of relevant finance blogs technical appendices and exercises.

How to Invest in Structured Products

This book is essential in understanding, investing and risk managing the holy grail of investments - structured products. The book begins by introducing structured products by way of a basic guide so that readers will be able to understand a payoff graphic, read a termsheet or assess a payoff formula, before moving on to the key asset classes and their peculiarities. Readers will then move on to the more advanced subjects such as structured products construction and behaviour during their lifetime. It also explains how to avoid important pitfalls in products across all asset classes, pitfalls that have led to huge losses over recent years, including detailed coverage of counterparty risk, the fall of Lehman Brothers and other key aspects of the financial crisis related to structured products. The second part of the book presents an original approach to implementing structured products in a portfolio. Key features include: A comprehensive list of factors an investor needs to take into consideration before investing. This makes it a great help to any buyer of structured products; Unbiased advice on product investments across several asset classes: equities, fixed income, foreign exchange and commodities; Guidance on how to implement structured products in a portfolio context; A comprehensive questionnaire that will help investors to define their own investment preferences, allowing for a greater precision when facing investment decisions; An original approach determining the typical distribution of returns for major product types, essential for product classification and optimal portfolio implementation purposes; Written in a fresh, clear and understandable style, with many figures illustrating the products and very little mathematics. This book will enable you to better comprehend the use of structured products in everyday banking, quickly analyzing a product, assessing which of your clients it suits, and recognizing its major pitfalls. You will be able to see the added value versus the cost of a product and if the payoff is compatible with the market expectations.

How to Implement Market Models Using VBA

Accessible VBA coding for complex financial modelling How to Implement Market Models Using VBA makes solving complex valuation issues accessible to any financial professional with a taste for mathematics. With a focus on the clarity of code, this practical introductory guide includes chapters on VBA fundamentals and essential mathematical techniques, helping readers master the numerical methods to build an algorithm that can be used in a wide range of pricing problems. Coverage includes general algorithms, vanilla instruments, multi-asset instruments, yield curve models, interest rate exotics, and more, guiding readers thoroughly through pricing in the capital markets area. The companion website (http://implementmodinvba.com/) features additional VBA code and algorithmic techniques, and the interactive blog provides a forum for discussion of code with programmers and financial engineers, giving readers insight into the different applications and customisations possible for even more advanced problem solving.. Financial engineers implement models from a mathematical representation of an asset's performance by building a program that performs a valuation of securities based on this asset. How to Implement Market Models Using VBA makes this technical process understandable, with well-explained algorithms, VBA code, and accessible theoretical explanations. Decide which numerical method to use in which scenario Identify the necessary building blocks of an algorithm Write clear, functional VBA code for a variety of problems Apply algorithms to different instruments and models Designed for finance professionals, this book brings more accurate modelling within reach for anyone with interest in the market. For clearer code, patient explanation, and practical instruction, How to Implement Market Models Using VBA is an essential introductory guide.

Capital Market Instruments

Revised and updated guide to some of the most important issues in the capital markets today, with an emphasis on fixed-income instruments. Fundamental concepts in equity market analysis, foreign exchange and money markets are also covered to provide a comprehensive overview. Analysis and valuation techniques are given for practical application.

The Handbook of Fixed Income Securities

The world’s #1 fixed income book, now with 21 all-new chapters The Handbook of Fixed Income Securities occupies the top spot as the most authoritative, widely read reference in the global fixed income marketplace. First published in 1983, this comprehensive survey of current knowledge features contributions from leading academics and practitioners and has carved out a niche that cannot and will not be equaled by any other single sourcebook. Now, the thoroughly revised and updated seventh edition gives finance professionals the facts and formulas they need to compete in today's transformed marketplace. It places increased emphasis on applications, electronic trading, and global portfolio management, and features new chapters on topics including: Eurobonds Emerging market debt Credit risk modeling Synthetics CDOs Transition management And many more

Interest Rate Modeling

\"The three volumes of Interest rate modeling are aimed primarily at practitioners working in the area of interest rate derivatives, but much of the material is quite general and, we believe, will also hold significant appeal to researchers working in other asset classes. Students and academics interested in financial engineering and applied work will find the material particularly useful for its description of real-life model usage and for its expansive discussion of model calibration, approximation theory, and numerical methods.\"--Preface.

XVA

Thorough, accessible coverage of the key issues in XVA XVA – Credit, Funding and Capital Valuation Adjustments provides specialists and non-specialists alike with an up-to-date and comprehensive treatment of Credit, Debit, Funding, Capital and Margin Valuation Adjustment (CVA, DVA, FVA, KVA and MVA), including modelling frameworks as well as broader IT engineering challenges. Written by an industry expert, this book navigates you through the complexities of XVA, discussing in detail the very latest developments in valuation adjustments including the impact of regulatory capital and margin requirements arising from CCPs and bilateral initial margin. The book presents a unified approach to modelling valuation adjustments including credit risk, funding and regulatory effects. The practical implementation of XVA models using Monte Carlo techniques is also central to the book. You'll also find thorough coverage of how XVA sensitivities can be accurately measured, the technological challenges presented by XVA, the use of grid computing on CPU and GPU platforms, the management of data, and how the regulatory framework introduced under Basel III presents massive implications for the finance industry. Explores how XVA models have developed in the aftermath of the credit crisis The only text to focus on the XVA adjustments rather than the broader topic of counterparty risk. Covers regulatory change since the credit crisis including Basel III and the impact regulation has had on the pricing of derivatives. Covers the very latest valuation adjustments, KVA and MVA. The author is a regular speaker and trainer at industry events, including WBS training, Marcus Evans, ICBI, Infoline and RISK If you're a quantitative analyst, trader, banking manager, risk manager, finance and audit professional, academic or student looking to expand your knowledge of XVA, this book has you covered.