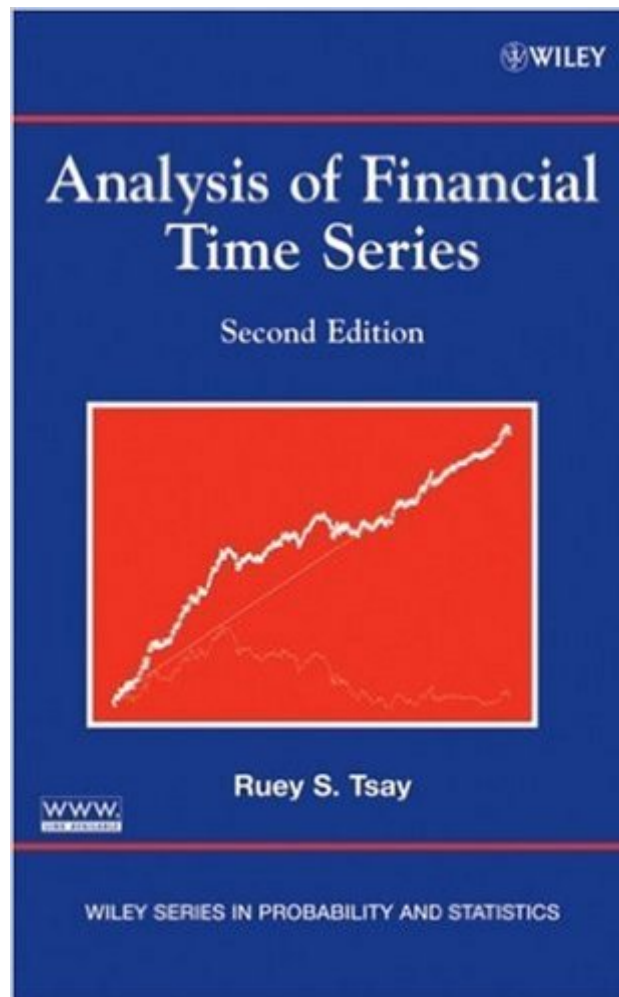# Analysis Of Financial Time Series (Wiley Series In Probability And Statistics)

Synopsis

Provides statistical tools and techniques needed to understand today's financial markets The Second Edition of this critically acclaimed text provides a comprehensive and systematic introduction to financial econometric models and their applications in modeling and predicting financial time series data. This latest edition continues to emphasize empirical financial data and focuses on real-world examples. Following this approach, readers will master key aspects of financial time series, including volatility modeling, neural network applications, market microstructure and high-frequency financial data, continuous-time models and Ito's Lemma, Value at Risk, multiple returns analysis, financial factor models, and econometric modeling via computation-intensive methods. The author begins with the basic characteristics of financial time series data, setting the foundation for the three main topics: Analysis and application of univariate financial time series Return series of multiple assets Bayesian inference in finance methods This new edition is a thoroughly revised and updated text, including the addition of S-Plus® commands and illustrations. Exercises have been thoroughly updated and expanded and include the most current data, providing readers with more opportunities to put the models and methods into practice. Among the new material added to the text, readers will find: Consistent covariance estimation under heteroscedasticity and serial correlation Alternative approaches to volatility modeling Financial factor models State-space models Kalman filtering Estimation of stochastic diffusion models The tools provided in this text aid readers in developing a deeper understanding of financial markets through firsthand experience in working with financial data. This is an ideal textbook for MBA students as well as a reference for researchers and professionals in business and finance.

Book Information

Average Customer Review: 3.8 out of 5 stars Â Â See all reviewsÂ (18 customer reviews)

Best Sellers Rank: #1,152,260 in Books (See Top 100 in Books) #498 inÂ Books > Business & Money > Economics > Econometrics #517 inÂ Books > Computers & Technology > Computer

Customer Reviews

Written by a University of Chicago professor, this book comprehensively covers times series topics relative to investment and trading-oriented finance (i.e., Wall Street money-making machines). Treatment is generally clear and thorough, but an advanced math and stat background is an absolute prerequisite for understanding the materials.S-Plus/R code is given, but strangely, there is very little on *why* and*when* one uses each of the techniques. Under what cirmcustances should I use or not use GARCH? What exactly is PCA good for in real-world applications? These important questions are not answered, in other words, you don't get a sense of the real-world context for these topics.

Professor Tsay is a student of the Wisconsin school of statisticians where he learned time series from Box and Tiao. He is an excellent lecturer and a good writer. I have attended one of the short courses he taught on time series. New models have been developed to deal with the special behavior of financial time series. Professor Tsay is always at the forefront of that research and teaches at Chicago in one of this country's top business schools. If I am correct George Tiao is also there at present.This is the second edition of a popular text. Financial time series play an ever more important role in our lives during these turbulant economic times. Tsay cover the tradition Box-Jenkins models but these models are not always appropriate for financial data. So he also introduces the GARCH models and some nonlinear models. The book includes some models that I am not familiar with. I have done research in time series but never with financial data. There is some theory involving stochastic differential equations that explains some of the turbulant behavior of financial series. The text by J. Michael Steele provides thorough coverage to this theory.Tsay also deals with the pesky problem of outliers. A very practical problem that is often ignored in other econometric texts. He also has a chapter on Bayesian approaches. Some computing in SPlus is also included in this revision of the text.

I had a detailed study of the whole book before finally deciding to buy in on web. As a statistician and a beginner on Math Finance, I would say this book deserves every penny I spent on it.The author's intention to make it a reference book can be appreciated by both educators and practitioners. It starts with a couple of chapters on the ARIMA and the GARCH models. Little

theoretic depth was explored yet the algorithms and the procedures for solution are emphasized. After that, the topic switches to the nonlinear time series modeling and high-freq data analysis. This part is, and will be, rather confusing to readers with less training in financial economics and theories are reluctantly clearly stated. What follows is a single chapter of so-called continuous time models and it is actually a sketch of the first few chapters of any mathematical finance textbook. Literally, this chapter is all about Black-Scholes and a little jump-diffusion model. The major reason why I called it a reference book is because it includes one chapter on VaR between the math finance chapter and the multi-variate time series models part. The author didn't say much more than that VaR is essentially some quantile calculation, which is fine in the statistical meaning. However, this description seems really "shallow" as compared with Jorion's book on VaR and risk management.After all, I would give it a five star because its comprehensiveness and the author's effort to incorporate so many things in order to re-define the framework of financial time series analysis.

This is not a reference book, and it's not about "big" theory either. It's pretty practical, and good for self study. You should have access to some econometric/statistical software (i.e. EViews, S-Plus, etc.) to fully understand this book.

This book is an excellent toolbox for anyove dealing in the field of financial engineering, however, as a real toolbox, the author doesn't explain the exact use of all tools and how to interpret the results. This is why this book is for advanced users who need a well documented reference but it is not very suitable for beginners in the field. The Splus code is welcome.

This book is awesome. It starts with bedrock concepts needed for analysis of financial data and it takes the student up to the most recent and important techniques used in the industry today. However, if one expects to fully utilize this text, one should have at least one semester of applied econometrics or some equivalent course in statistics and continuous probability, although it will be practical to study the two topics concurrently.

This text is absolutely perfect for Masters students learning financial econometrics. There is a little theory, clear explanations, and quite a few real world examples. (I don't think any text would tell the reader what model to use when, because that's application-specific.) It assumes some knowledge of finance and basic econometrics/statistics, which is fair enough. To get more theory, Hamilton

(1994) remains the authority, and Campbell, Lo, MacKinlay (1997) is a great introduction for PhD students, and generally an ideal companion volume to this one.

Analysis of Financial Time Series (Wiley Series in Probability and Statistics) Applied Econometric Time Series (Wiley Series in Probability and Statistics) Statistics and Data Analysis for Financial Engineering: with R examples (Springer Texts in Statistics) Probability and Statistics for Engineering and the Sciences Statistical Learning with Sparsity: The Lasso and Generalizations (Chapman & Hall/CRC Monographs on Statistics & Applied Probability) Wiley CPAexcel Exam Review Spring 2014 Study Guide: Financial Accounting and Reporting (Wiley Cpa Exam Review) Wiley CPAexcel Exam Review 2016 Study Guide January: Financial Accounting and Reporting (Wiley Cpa Exam Review) Wiley CPAexcel Exam Review 2015 Study Guide July: Financial Accounting and Reporting (Wiley Cpa Exam Review) Wiley CPAexcel Exam Review 2015 Study Guide (January): Financial Accounting and Reporting (Wiley Cpa Exam Review) Wiley GAAP: Financial Statement Disclosures Manual (Wiley Regulatory Reporting) Monte Carlo Methods in Financial Engineering (Stochastic Modelling and Applied Probability) (v. 53) The Valuation of Financial Companies: Tools and Techniques to Measure the Value of Banks, Insurance Companies and Other Financial Institutions (The Wiley Finance Series) Higher Probability Commodity Trading: A Comprehensive Guide to Commodity Market Analysis, Strategy Development, and Risk Management Techniques Aimed at Favorably Shifting the Odds of Success Time Series Analysis: With Applications in R (Springer Texts in Statistics) Time Series Analysis (Springer Texts in Statistics) Lessons in Corporate Finance: A Case Studies Approach to Financial Tools, Financial Policies, and Valuation (Wiley Finance) Even You Can Learn Statistics and Analytics: An Easy to Understand Guide to Statistics and Analytics (3rd Edition) Introductory Statistics with R (Statistics and Computing) Discovering Statistics Using IBM SPSS Statistics, 4th Edition Financial Statement Analysis for Non-Financial Managers: Property and Casualty Insurance