Statistics

The composition of portfolios is one of the most fundamental and important methods in financial engineering, used to control the risk of investments. This book provides a comprehensive overview of statistical inference for portfolios and their various applications. A variety of asset processes are introduced, including non-Gaussian stationary processes, nonlinear processes, non-stationary processes, and the book provides a framework for statistical inference using local asymptotic normality (LAN). The approach is generalized for portfolio estimation, so that many important problems can be covered.

- Provides an overview of the theory and applications of statistical portfolio estimation
- Includes necessary background material in stochastic processes and limit theorems
- Covers dependent return processes, multiperiod problems, estimation based on rank statistics, and non-Gaussian processes
- Includes illustrative examples throughout, and a chapter of detailed worked examples
- Theoretical details and technical points are included in a final chapter so as not to disrupt the flow of the text

This book can primarily be used as a reference by researchers from statistics, mathematics, finance, econometrics, and genomics. It can also be used as a textbook by senior undergraduate and graduate students in these fields.

STATISTICAL PORTFOLIC **ESTIMATIO**



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