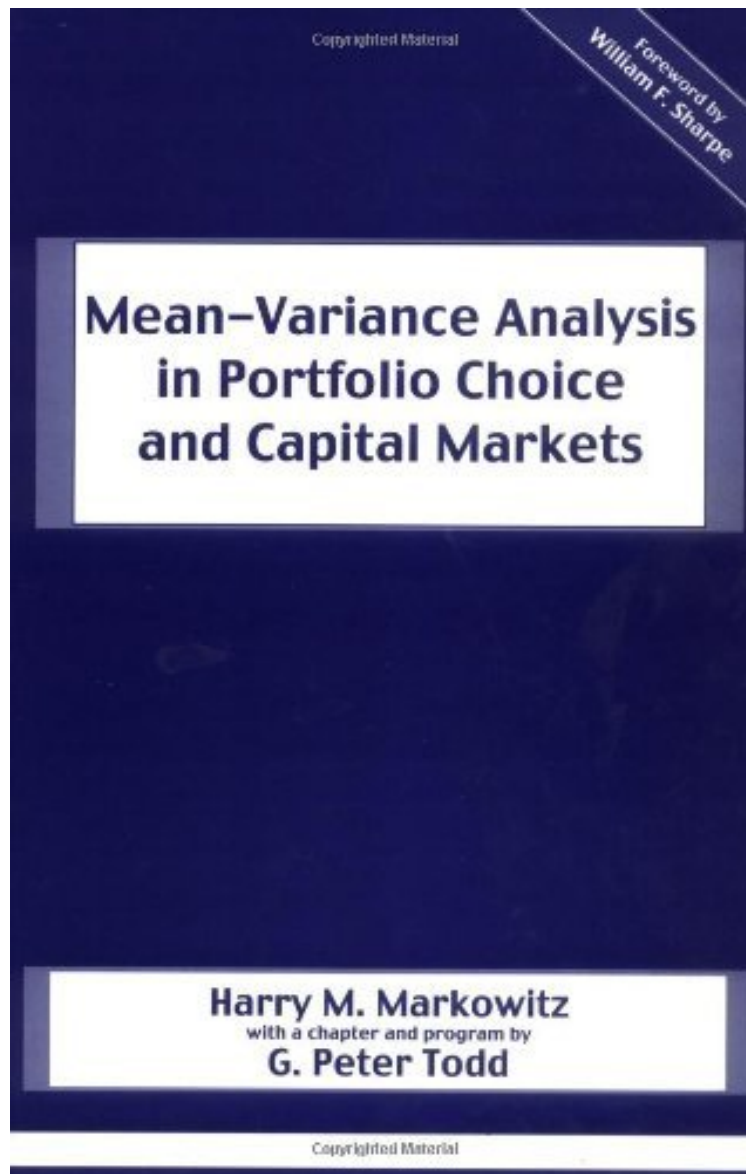


(Download pdf ebook) Mean-Variance Analysis in Portfolio Choice and Capital Markets (Frank J. Fabozzi Series)

Mean-Variance Analysis in Portfolio Choice and Capital Markets (Frank J. Fabozzi Series)

Harry M. Markowitz, G. Peter Todd
*ebooks | Download PDF | *ePub | DOC | audiobook*



#1972485 in eBooks 2008-05-02 2008-05-02 File Name: B000W97KR0PDF # 1 | File size: 22.Mb

Harry M. Markowitz, G. Peter Todd : Mean-Variance Analysis in Portfolio Choice and Capital Markets (Frank J. Fabozzi Series) before purchasing it in order to gage whether or not it would be worth my time, and all praised Mean-Variance Analysis in Portfolio Choice and Capital Markets (Frank J. Fabozzi Series):

13 of 14 people found the following review helpful. Not for the faint of heart
By Customer
The bible on mean-variance optimization for portfolio selection. If you need to know the nuts and bolts of how to do MVO, this book has it. But be prepared to wade through some fairly advanced math. Theoretically, anyone with college Calculus and Matrix Operations should be able to make it through the math. But I can tell you from personal experience, it's pretty rough going. The text is written for mathematicians, so unless one is very comfortable with some fairly advanced matrix work, it can be very hard to follow what's going on. Peter Todd provides an implementation of Dr. Markowitz's algorithm in VBA. If you are a programmer, be prepared: The code was also written by a mathematician for mathematicians. If you don't understand the math behind the algorithm, you probably won't be able to decipher the code. And the code is complex enough that I doubt it could be copied by rote. With all that said, this really is an incredible book. It is ideal for a team comprised of a mathematician and a programmer who need to write an application to do MVO. We are using it as our primary reference in creating an 'efficient frontier' optimizer for use in investment software.

3 of 5 people found the following review helpful. Excellent presentation of an approach that is very limited in practice due to its ignoring the risk-uncertainty divide
By Michael Emmett Brady
The authors of this book essentially present a generalization of the simple mean variance approach to portfolio analysis. Risk is measured by an $n \times n$ variance-covariance matrix (as opposed to the simple case of measuring risk by the standard deviation, σ). This approach is built upon the assumption of normality (joint normal, bivariate normal, multivariate normal, cumulative normal, log normal). The Central Limit Theorem is simply assumed to always be the case so that the distribution of the sample means will always approximate a normal distribution. J M Keynes expressed this conclusion by the statement that w , the weight of the evidence, equalled 1, where w was defined on the unit interval $[0,1]$. This essentially rules out the use of different probability distributions. The techniques illustrated in the analysis in this book do not have any application under conditions where any type of discontinuity and/or dependence of the data points shows up in the time series data. This is precisely what J M. Keynes argued in his 1939-40 dispute over the application of the use of multiple regression and correlation analysis to time series data concerning investment in plant, equipment, and inventories with Jan Tinbergen in the pages of the Economic Journal and what Benoit Mandelbrot has discovered time and again for over 50 years in his goodness of fit studies of financial market pricing data. It turns out the the Cauchy, Frechet, and power law distributions, like the Pareto distribution, are far more accurate representations of the time series data than the normal distribution, which is a special case of the Cauchy. This book presents an analysis of sound techniques only when the normal distribution is applicable.

In 1952, Harry Markowitz published "Portfolio Selection," a paper which revolutionized modern investment theory and practice. The paper proposed that, in selecting investments, the investor should consider both expected return and variability of return on the portfolio as a whole. Portfolios that minimized variance for a given expected return were demonstrated to be the most efficient. Markowitz formulated the full solution of the general mean-variance efficient set problem in 1956 and presented it in the appendix to his 1959 book, Portfolio Selection. Though certain special cases of the general model have become widely known, both in academia and among managers of large institutional portfolios, the characteristics of the general solution were not presented in finance books for students at any level. And although the results of the general solution are used in a few advanced portfolio optimization programs, the solution to the general problem should not be seen merely as a computing procedure. It is a body of propositions and formulas concerning the shapes and properties of mean-variance efficient sets with implications for financial theory and practice beyond those of widely known cases. The purpose of the present book, originally published in 1987, is to present a comprehensive and accessible account of the general mean-variance portfolio analysis, and to illustrate its usefulness in the practice of portfolio management and the theory of capital markets. The portfolio selection program in Part IV of the 1987 edition has been updated and contains exercises and solutions.

From the Back Cover
In 1952, Harry Markowitz published "Portfolio Selection," a paper which revolutionized modern investment theory and practice. The paper proposed that, in selecting investments, the investor should consider both expected return and variability of return on the portfolio as a whole. Portfolios that minimized variance for a given expected return were demonstrated to be the most efficient. Markowitz formulated the full solution of the general mean-variance efficient set problem in 1956 and presented it in the appendix to his 1959 book, Portfolio Selection. Though certain special cases of the general model have become widely known, both in academia and among managers of large institutional portfolios, the characteristics of the general solution were not presented in finance books for students at any level. And although the results of the general solution are used in a few advanced portfolio optimization programs, the solution to the general problem should not be seen merely as a computing procedure. It is a body of propositions and formulas concerning the shapes and properties of mean-variance efficient sets with implications for financial theory and practice beyond those of widely known cases. The purpose of the present book, originally published in 1987, is to present a comprehensive and accessible account of the general mean-variance portfolio analysis, and to illustrate its usefulness in the practice of portfolio management and the theory of capital markets. The portfolio selection program in Part IV of the 1987 edition has been updated and contains exercises and

solutions. About the Author Harry Markowitz has applied computer and mathematical techniques to various practical decision making areas. In finance: he presented in an article in 1952 and a book in 1959 "modern portfolio theory," now a standard topic in college courses and widely used by institutional investors for tactical asset allocation, risk control, and attribution analysis. In other areas: Dr. Markowitz developed "sparse matrix" techniques for solving very large mathematical optimization problems, now standard in production software for optimization programs. He also designed and supervised the development of the SIMSCRIPT programming language which has been widely used for programming computer simulations of systems like factories, transportation systems, and communication networks. In 1989 Dr. Markowitz received The John von Neumann Award from the Operations Research Society of America for his work in portfolio theory, sparse matrix techniques, and SIMSCRIPT. In 1990 he shared The Nobel Prize in Economics for his work on portfolio theory. G. Peter Todd is a Director of Riverview International Group, Inc., where he is responsible for software development. From 1990 to 1998 Dr. Todd was a Vice President in Daiwa Securities Trust's Global Portfolio Research Department (GPRD), where he worked with Harry Markowitz, GPRD's Director of Research. Dr. Todd received a Ph.D. in Biochemistry from Cornell University and a B.S. in Chemistry from Utah State University.