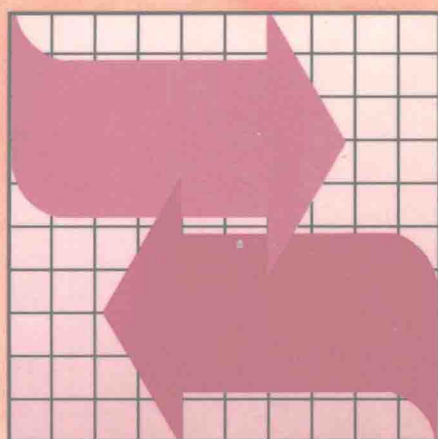

*The Investor's
Self-Teaching Seminars*

**UNDERSTANDING AND
MANAGING INVESTMENT
RISK & RETURN**



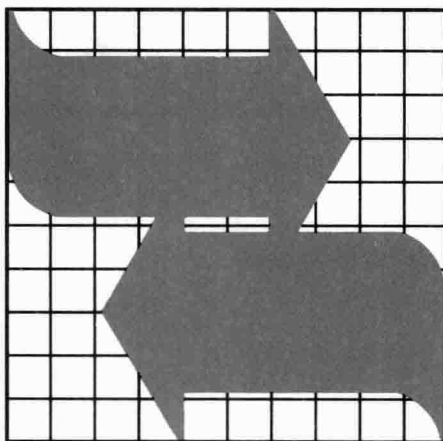
*One of a Series of Hands-On Workshops
Dedicated to the Serious Investor*

David L. Scott

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FOREWORD

The lengthy bull market in common stocks that commenced in August 1982 caused investors to tuck risk into the far recesses of their minds. Then came October 19, 1987's, "Meltdown Monday" with its dramatic decline and a near calamity in the financial markets. Actually, for some individuals it was more than just a near calamity. The sudden and generally unexpected free-fall of stock prices brought investors back to earth with such a thud that many of them still have not recovered.

Risks are always with us, and it is important that investors consider these risks as part of their financial planning. Before planning can take place, however, it is first necessary to understand what these risks are and how they apply to the ever-increasing variety of investments being made available to investors. Never before has there been such a great abundance of investment alternatives. Only by understanding the risks applicable to these alternatives can an investor effectively control the risks while building a portfolio.

Different individuals are in different financial situations with disparate wants and needs. This great diversity in the status of individual investors brings with it a varying ability to absorb risks. Some individuals may have significantly more to fear from inflation than from changing interest rates or market fluctuations, for ex-

ample. Because of the varying ability to absorb risks, it is crucial that the investor understand which risks are most important and what types of investments can provide the greatest degree of protection from those risks.

This book attempts to present the concept of investment risk in a manner that can be understood by the average investor. The various uncertainties that face individual investors are discussed in a nontechnical and nonthreatening manner with the goal of allowing readers to put the ideas to use in building their own investment portfolios.

The book first presents a general concept of risk: what it is and how it affects virtually all investments. The following two chapters discuss the various risks that cause uncertain rates of return among investments; unexpected inflation, uncertain interest rates, uncertain business conditions, excessive borrowing, unpredictable market cycles, and potential difficulty in disposing of an asset. The discussion of individual risks is followed by chapters on individual investment categories and the risks that cause the greatest uncertainties to owners of these assets. The final chapter is devoted to a discussion of how an individual investor can put together an investment portfolio that best minimizes the important risks that have been identified by the investor.

In many instances common sense will go a long way in controlling risk. When someone promises an unrealistically high return, there is every reason to suspect that the return truly is unrealistic. At least, it is unrealistic to think that such a high return can occur without substantial risk. Because the investment world is so competitive, it is generally possible to earn substantially higher returns only by incurring greater risks.

Investors most often lose substantial amounts of money when they get overly greedy. Individuals read in magazines how other investors have become wealthy, or they hear their friends brag on how much they have made on such and such an investment. The tendency is to take the plunge in seeking riches that will provide material for new stories. Unfortunately, the likely result is something even the family dog won't want to hear.

Nothing is wrong with undertaking risky investments so long as the investor understands the possible consequences. Financial

theory tells us that risky investments have higher expected returns. It is just that the higher the expected return becomes, the less certain the investor is to actually earn such a return. This, of course, is the risk.

An investor's tolerance for risk is more than just a pencil and paper analysis of the pros and cons of the uncertainties surrounding an individual investment or portfolio of investments. Without question, many investors are so indisposed to risk that a little of it goes a long way, no matter what the investor's age, financial status, or goals. An investment advisor may examine the financial status of an individual investor and decide that it would be prudent to pursue a more risky investment path in search of additional return. On paper this conclusion may well be justified. However, if the individual investor is so afraid of potential losses that substantial worry would result, then the potential for additional return is likely outweighed by peace of mind. There are more important things in life than eking out an extra quarter of a percent.

I would like to thank a number of people and organizations that contributed to the completion of this book. First, I express appreciation to my wife, Kay, for allowing me to spend hours, days, and weekends in front of my trusty AT&T computer. Now that this manuscript is complete, we may eat fewer nacho chips, tacos, and pizzas. Also, I appreciate the fact that our dean, Ken Stanley, supports these activities and had the foresight to equip the business faculty at Valdosta State with superb computer facilities. My good and computer-literate friend, Steve Parrish, was kind enough to produce the graphs in his small abode behind the local K Mart. Also, thanks to student assistant Bart Holt for his help in tracking down data for the graphs and tables. Finally, thanks to the Graduate Research Advisory Committee at Valdosta State College, which provided partial funding to assist with the incidental expenses involved in producing the manuscript.

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CONTENTS

FOREWORD	ix
CHAPTER ONE: UNDERSTANDING INVESTMENT RISK	1
What Is Investment Risk?	4
How Investors View Risk	8
Risk Benchmarks	9
The Importance of Expected Inflation	14
The Capacity to Assume Risk	16
The Individual Investor as a Risky Asset	20
Viewing Risk in a Comprehensive Framework	21
Self-Help Questions	22
CHAPTER TWO: RISKS ENCOUNTERED BY INVESTORS	25
Categories of Risk	28
Purchasing-Power Risk	29
Interest-Rate Risk	37
Self-Help Questions	45
CHAPTER THREE: RISKS ENCOUNTERED BY INVESTORS (CONTINUED)	47
Business Risk	49
Financial Risk	53

Liquidity Risk	56
Reinvestment Risk	59
Market Risk	62
How Investment Risks Interact	65
Self-Help Questions	67

CHAPTER FOUR: THE RISKS OF OWNING BONDS AND PREFERRED STOCKS

Characteristics of Fixed-Income Securities	69
Purchasing-Power Risk	72
Interest-Rate Risk	74
Financial Risk	77
Business Risk	83
Liquidity Risk	86
Reinvestment Risk	88
Market Risk	90
Summarizing Risk and Fixed-Income Investments	91
Self-Help Questions	92
	94

CHAPTER FIVE: THE RISKS OF OWNING COMMON STOCKS AND RELATED SECURITIES

Characteristics of Common Stocks	97
Purchasing-Power Risk	99
Interest-Rate Risk	101
Financial Risk	105
Business Risk	109
Reinvestment Risk	110
Market Risk	112
Liquidity Risk	113
Summarizing Risk and Common Stocks	114
Convertible Bonds	115
Stock Options	117
Self-Help Questions	120
	123

CHAPTER SIX: THE RISKS OF OWNING TANGIBLE ASSETS AND FUTURES

Characteristics of Tangible Assets	125
	128

The Risk of Investing in Tangible Assets	129
Summarizing the Risks of Owning Tangible Assets	138
The Risks of Investing in Futures	138
Self-Help Questions	141
 CHAPTER SEVEN: THE RISKS OF OWNING NONMARKETABLE INVESTMENTS	 143
Characteristics of Nonmarketable Investments	146
The Risks of Investing in Nonmarketable Assets	147
Summarizing Risk and Nonmarketable Investments	156
Self-Help Questions	157
 CHAPTER EIGHT: CONTROLLING INVESTMENT RISK	 159
Identifying Individual Goals	162
Selecting Investments Appropriate to the Goal	163
Asset Allocation	165
The Need to Periodically Reallocate Portfolio Assets	166
Using Diversification to Reduce Risk	168
Risk Considerations of Three Popular Investment Goals	172
A Final Statement on Controlling Risk	177
Self-Help Questions	177
 APPENDIX A: DURATION: A MEASURE OF BOND PRICE VOLATILITY	 179
 APPENDIX B: BOND RATINGS	 185
 APPENDIX C: BETA: A MEASURE OF SYSTEMATIC RISK	 191
 APPENDIX D: ANSWERS TO END-OF-CHAPTER SELF-HELP QUESTIONS	 197
Chapter 1	199
Chapter 2	201
Chapter 3	203
Chapter 4	204

Chapter 5	206
Chapter 6	208
Chapter 7	210
Chapter 8	211
ABOUT THE AUTHOR	215

Chapter One

UNDERSTANDING INVESTMENT RISK

There is no denying that individuals live in an environment that is full of risks. Risks of varying degrees of seriousness are always lurking nearby: the possibility of an accident while driving an automobile; of suddenly contracting a serious disease; of having a home damaged by fire or violent weather; of falling in the shower; of purchasing a faulty computer from a mail-order firm that soon goes out of business, and so on. The compendium of risks encountered in everyday life seems to be endless.

Although the variety of risks inherent in investing is certainly less diverse and less physically painful than some of the pitfalls just noted, experienced investors have nonetheless learned that numerous risks are indigenous to nearly all investment vehicles. Investors may see their investment in a business disappear because of a lack of customers during a period of economic recession. They may find that dividends or interest income from security holdings are reduced or eliminated because the payor is no longer financially able to make payments. They may discover that inflation has eaten away at the real value of their investment such that the returns are puny or even negative when adjusted for changes in the cost things they must buy.

There are many reasons that an investment may produce unexpected results. Among even the best-known and most frequently used investments are often serious risks that tend to remain hidden. So, if risk is everywhere, why is it not always clearly evident? Why are investors frequently surprised when favorable expectations turn into major disappointments? Before these questions can be addressed, risk must first be identified. If risk cannot be recognized, it certainly cannot be controlled.

WHAT IS INVESTMENT RISK?

As a general concept, investment risk refers to an uncertain rate of return. For a single investment or group of investments, the less certain the rate of return, the greater the risk of ownership. Viewed from the opposite perspective, the greater the certainty of an investment's rate of return, the less the risk of owning the investment. If there is absolutely no question about the rate of return that an investment will provide, then there is no risk to owning that investment. Unfortunately, these no-risk gems are few and, when they are located, tend to offer relatively meager returns.

An investment's rate of return may be uncertain for any number of reasons. For example, there is always the possibility that a company's directors will reduce the dividend on its common stock or that a municipality will be unable to make the interest payments on its bonds. Likewise, a period of rapid price inflation will significantly reduce the real value of a bond's principal. As if inflation is not ominous enough, rising interest rates that frequently accompany inflation will exert downward pressure on the prices of outstanding bonds.

In addition to uncertain income sources such as dividends or rent payments, uncertainty can also stem from doubt about the money an investment will fetch if it is sold. For example, a high-grade, long-term bond produces semi-annual interest payments that are reasonably certain to occur on the scheduled dates. Even if the bond is of the very highest grade, however, there is no way of knowing for certain how much the security will bring if it must be sold prior to maturity. Also, there is no way to determine how much of the

bond's interest and principal will be eaten away by inflation during the years that the bond is owned.

The world of available investments is quite diverse, so that risks vary considerably among investment alternatives. Some investments, such as real estate and new issues of common stocks, tend to subject their owners to a great amount of risk. At the same time, other investments, such as U.S. Treasury bills and short-term certificates of deposit, have very little uncertainty as to their rates of return. It is this certainty of return that is the paramount reason why individuals and institutions acquire these investments. Most people purchase certificates of deposit because they know exactly the amount of money they will receive and the precise date on which they will receive it.

The concept of investment risk can be illustrated with a numerical example. Suppose an investor is faced with two investment alternatives. Each investment requires an identical outlay of cash and each provides an expected return of 15 percent during its projected life of one year. The only difference between the two investments is that, while the annual rate of return on Investment A is a certain 15 percent, Investment B offers two possible outcomes, a return of 5 percent or a return of 25 percent. Each of these two returns on Investment B is equally likely, and there are no other possible outcomes. Thus, for Investment B, there is a 50 percent likelihood that the annual rate of return will be 5 percent and a 50 percent likelihood that the rate of return will be 25 percent. Investment B has the same expected rate of return as Investment A, even though there is no way to determine in advance whether the return on B will be 5 percent or 25 percent. A comparison of the possible outcomes and respective probabilities for each of the two investments is displayed in Exhibit 1-1.

A general formula for calculating an investment's expected rate of return is:

$$R = p_1r_1 + p_2r_2 + p_3r_3 + \dots + p_nr_n$$

where:

R = the investment's expected rate of return.

r = each possible rate of return that may actually occur.

p = the probability that a particular rate of return may occur.

The sum of these probabilities must equal 100 percent.

Figure 1-1
Potential Returns on Two Investments

