

CONTENTS

How to Use the CFA Program Curriculum

Errata	xiii
Designing Your Personal Study Program	xiii
CFA Institute Learning Ecosystem (LES)	xiv
Feedback	xiv

Portfolio Management

Learning Module 1

Portfolio Risk and Return: Part I

Introduction	3
Historical Return and Risk	4
Nominal Returns of Major US Asset Classes	5
Real Returns of Major US Asset Classes	6
Nominal and Real Returns of Asset Classes in Major Countries	7
Risk of Major Asset Classes	7
Risk-Return Trade-off	8
Other Investment Characteristics	8
Distributional Characteristics	9
Market Characteristics	11
Risk Aversion and Portfolio Selection	12
The Concept of Risk Aversion	12
Utility Theory and Indifference Curves	13
Indifference Curves	14
Application of Utility Theory to Portfolio Selection	18
Portfolio Risk & Portfolio of Two Risky Assets	21
Portfolio of Two Risky Assets	21
Portfolio of Many Risky Assets	30
Importance of Correlation in a Portfolio of Many Assets	31
The Power of Diversification	31
Correlation and Risk Diversification	33
Historical Risk and Correlation	33
Historical Correlation among Asset Classes	33
Avenues for Diversification	34
Efficient Frontier: Investment Opportunity Set & Minimum Variance Portfolios	37
Investment Opportunity Set	37
Minimum-Variance Portfolios	38
Efficient Frontier: A Risk-Free Asset and Many Risky Assets	40
Capital Allocation Line and Optimal Risky Portfolio	40
The Two-Fund Separation Theorem	41
Efficient Frontier: Optimal Investor Portfolio	43
Investor Preferences and Optimal Portfolios	48
Summary	48
Practice Problems	50