



LIMITLESS**POSSIBILITY**

CGIA CURRICULUM

CANDIDATES BODY OF KNOWLEDGE FOR 2017

Limitless Possibility



ABOUT CGIA

The Chartered Global Investment Analyst (CGIA) is the world's largest and recognized professional body providing approved designation for the financial services industry.

The CGIA Charter designation is a gateway to a network of more than **10,000** investment professionals recognized in over **100** countries worldwide. The designation is certified by the Global Academy of Finance and Management (GAFM®).

CGIA IN NUMBERS

1
Global professional body

100+
countries

10,000+
members

560+
Institutions worldwide

WHO CAN JOIN THE CGIA?

The CGIA Charter Program is opened to wide ranges of candidates with different skills and academic backgrounds. The program is structured to accommodate both old and new entrant professionals in the investment and financial services industry.

Holders of High School, HND, Bachelors', Masters', PhD certificates and other professional qualifications (ACCA, CIMA, CIMG, ICAG, ICM(UK)) are all eligible to join the CGIA.

CGIA EXAM STRUCTURE

The CGIA Program includes a series of exams covering three (3) levels. Candidates must pass all levels and satisfy all obligations before the CGIA designation is awarded.

The CGIA professional examination at all levels is held in **January** and **July** of every year.

LEVEL I

- | | |
|-----------------------------|------|
| - Investment I | - A1 |
| - Corporate Finance I | - A2 |
| - Financial Risk Management | - A3 |

LEVEL II

- | | |
|--|------|
| - Investment II | - A4 |
| - Corporate Finance II | - A5 |
| - Financial Reporting & Analysis I | - A6 |
| - Investment Analysis & Portfolio Management I | - A7 |
| - Derivatives Analysis I | - A8 |

LEVEL III

- | | |
|---|-------|
| - Financial Reporting & Analysis II | - A9 |
| - Investment Analysis & Portfolio Management II | - A10 |
| - Derivatives Analysis II | - A11 |
| - Alternative Investment | - A12 |

ALL LEVELS (I, II, III)

- Are offered every year — at exam centers near you (specify during registration)— in January and July.
- Are available and written in English only. Check our English Language Requirements on our website www.cgiaglobal.com

Kindly note that only candidates who have satisfied all their obligations as registered members, (thus, paid their annual subscription and paid for all exam fees, exemption applicable to date) are eligible to sit for the exam.

The CGIA examination council is responsible for providing examination questions for assessment and marking of scripts. CGIA exam is held in all the exam centers and centers are communicated to candidates during exam registration.

LEVEL I

1. **PAPER A1** – INVESTMENT I
2. **PAPER A2** – CORPORATE FINANCE I
3. **PAPER A3** – FINANCIAL RISK MANAGEMENT

INVESTMENT I

LEVEL I PAPER A1

PART I INTRODUCTION

CHAPTER 1 The Investment Environment

- Real Assets versus Financial Assets
- Financial Assets
- Financial Markets and the Economy
- The Investment Process
- Markets Are Competitive
- The Players
- The Financial Crisis of 2008
- Outline of the Text

CHAPTER 2 Asset Classes and Financial Instruments

- The Money Market
- The Bond Market
- Equity Securities
- Stock and Bond Market Indexes
- Derivative Markets
- End of chapter materials

CHAPTER 3 How Securities Are Traded

- How Firms Issue Securities
- How Securities Are Traded
- The Rise of Electronic Trading
- U.S. Markets
- New Trading Strategies
- Globalization of Stock Markets
- Trading Costs
- Buying on Margin

CHAPTER 4 Mutual Funds and Other Investment Companies

- Investment Companies
- Types of Investment Companies
- Mutual Funds
- Costs of Investing in Mutual Funds
- Taxation of Mutual Fund Income
- Exchange-Traded Funds
- Mutual Fund Investment Performance: A First Look
- Information on Mutual Funds

PART II PORTFOLIO THEORY & PRACTICE

CHAPTER 5 Risk, Return, and the Historical Record

- Determinants of the Level of Interest Rates
- Comparing Rates of Return for Different Holding Periods
- Bills and Inflation, 1926–2012
- Risk and Risk Premiums
- Time Series Analysis of Past Rates of Return
- The Normal Distribution
- Deviations from Normality and Risk Measures
- Historic Returns on Risky Portfolios
- Long-Term Investments

CHAPTER 6 Capital Allocation to Risky Assets

- Risk and Risk Aversion
- Capital Allocation across Risky and Risk-Free Portfolios
- The Risk-Free Asset
- Portfolios of One Risky Asset and a Risk-Free Asset
- Risk Tolerance and Asset Allocation
- Passive Strategies: The Capital Market Line
- End of Chapter Material

CHAPTER 7 Optimal Risky Portfolios

- Diversification and Portfolio Risk
- Portfolios of Two Risky Assets
- Asset Allocation with Stocks, Bonds, and Bills
- The Markowitz Portfolio Optimization Model
- Risk Pooling, Risk Sharing, and the Risk of Long-Term Investments

CHAPTER 8 Index Models

- A Single-Factor Security Market
- The Single-Index Model
- Estimating the Single-Index Model
- Portfolio Construction and the Single-Index Model
- Practical Aspects of Portfolio Management with the Index Model
- End of Chapter Material

PART III EQUILIBRIUM IN CAPITAL MARKETS

CHAPTER 9 The Capital Asset Pricing Model

- The Capital Asset Pricing Model
- Assumptions and Extensions of the CAPM
- The CAPM and the Academic World\
- The CAPM and the Investment Industry
- End of Chapter Material

CHAPTER 10 Arbitrage Pricing Theory and Multifactor Models of Risk and Return

- Multifactor Models: An Overview
- Arbitrage Pricing Theory
- The APT, the CAPM, and the Index Model
- A Multifactor APT
- The Fama-French (FF) Three-Factor Model

CHAPTER 11 The Efficient Market Hypothesis

- Random Walks and the Efficient Market Hypothesis
- Implications of the EMH
- Event Studies
- Are Markets Efficient
- Mutual Fund and Analyst Performance

CHAPTER 12 Behavioral Finance and Technical Analysis

- The Behavioral Critique
- Technical Analysis and Behavioral Finance
- End of Chapter Material

CHAPTER 13 Empirical Evidence on Security Returns

- The Index Model and the Single-Factor APT
- Tests of the Multifactor CAPM and APT
- Fama-French-Type Factor Models
- Liquidity and Asset Pricing
- Consumption-Based Asset Pricing and the Equity Premium Puzzle

CORPORATE FINANCE I

LEVEL I PAPER A2

PART I Overview

- **CHAPTER 1** Introduction to Corporate Finance
- **CHAPTER 2** Financial Statements and Cash Flow
- **CHAPTER 3** Financial Statements Analysis and Financial Models

PART II Valuation & Capital Budgeting

- **CHAPTER 4** Discounted Cash Flow Valuation
- **CHAPTER 5** Net Present Value and Other Investment Rules
- **CHAPTER 6** Making Capital Investment Decisions
- **CHAPTER 7** Risk Analysis, Real Options, and Capital Budgeting
- **CHAPTER 8** Interest Rates and Bond Valuation
- **CHAPTER 9** Stock Valuation

PART III Risk

- **CHAPTER 10** Risk and Return: Lessons from Market History
- **CHAPTER 11** Return and Risk: The Capital Asset Pricing Model (CAPM)
- **CHAPTER 12** An Alternative View of Risk and Return: The Arbitrage Pricing Theory
- **CHAPTER 13** Risk, Cost of Capital, and Valuation
- **CHAPTER 14** Efficient Capital Markets and Behavioral Challenges

FINANCIAL RISK MANAGEMENT

LEVEL I PAPER A3

CHAPTER 1 Introduction

- Lessons from a Crisis
- Financial Risk and Actuarial Risk
- Simulation and Subjective Judgment

CHAPTER 2 Institutional Background

- Moral Hazard—Insiders and Outsiders
- Ponzi Schemes
- Adverse Selection
- The Winner's Curse
- Market Making versus Position Taking

CHAPTER 3 Operational Risk

- Operations Risk
- Legal Risk
- Reputational Risk
- Accounting Risk
- Funding Liquidity Risk
- Enterprise Risk
- Identification of Risks
- Operational Risk Capital

CHAPTER 4 Financial Disasters

- Disasters Due to Misleading Reporting
- Disasters Due to Large Market Moves
- Disasters Due to the Conduct of Customer Business

CHAPTER 5 The Systemic Disaster of 2007–2008

- Overview
- The Crisis in CDOs of Subprime Mortgages
- The Spread of the Crisis
- Lessons from the Crisis for Risk Managers
- Lessons from the Crisis for Regulators

CHAPTER 6 Managing Financial Risk

- Risk Measurement
- General Principles

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- Risk Management of Instruments That Lack Liquidity
 - Market Valuation
 - Valuation Reserves
 - Analysis of Revenue
 - Exposure to Changes in Market Prices
 - Risk Measurement for Position Taking
 - Risk Control

CHAPTER 7 VaR and Stress Testing

- VaR Methodology
- Simulation of the P&L Distribution
- Measures of the P&L Distribution
- Stress Testing
- Economic Scenario Stress Tests
- Stress Tests Relying on Historical Data
- Uses of Overall Measures of Firm Position Risk

CHAPTER 8 Model Risk

- How Important Is Model Risk?
- Model Risk Evaluation and Control
- Liquid Instruments
- Illiquid Instruments
- Trading Models

CHAPTER 9 Managing Spot Risk

- Overview
- Foreign Exchange Spot Risk
- Equity Spot Risk
- Physical Commodities Spot Risk

CHAPTER 10 Managing Forward Risk

- Instruments
- Mathematical Models of Forward Risks
- Factors Impacting Borrowing Costs
- Risk Management Reporting and Limits for Forward Risk

CHAPTER 13 Credit Risk

- Short-Term Exposure to Changes in Market Prices
- Credit Instruments
- Risk Reporting for Market Credit Exposures
- Portfolio Credit Risk
- Estimating Default Correlations
- Monte Carlo Simulation of Portfolio Credit Risk
- Risk Management and Reporting for Portfolio Credit Exposures

LEVEL II

1. **PAPER A4** – INVESTMENT II
2. **PAPER A5** – CORPORATE FINANCE II
3. **PAPER A6** – FINANCIAL REPORTING & ANALYSIS I
4. **PAPER A7** – INVESTMENT ANALYSIS & PORTFOLIO MANAGEMENT I
5. **PAPER A8** – DERIVATIVE ANALYSIS I

INVESTMENT II

LEVEL II PAPER A4

PART IV FIXED-INCOME SECURITIES

CHAPTER 14 Bond Prices and Yields

- Bond Characteristics
- Bond Pricing
- Bond Yields
- Bond Prices over Time
- Default Risk and Bond Pricing
- End of Chapter Material

CHAPTER 15 The Term Structure of Interest Rates

- The Yield Curve
- The Yield Curve and Future Interest Rates
- Interest Rate Uncertainty and Forward Rates
- Theories of the Term Structure
- Interpreting the Term Structure
- Forward Rates as Forward Contracts
- End of Chapter Material

CHAPTER 16 Managing Bond Portfolios

- Interest Rate Risk
- Convexity
- Passive Bond Management
- Active Bond Management
- End of Chapter Material

PART V SECURITIES ANALYSIS

CHAPTER 17 Macroeconomic and Industry Analysis

- The Global Economy
- The Domestic Macroeconomy
- Demand and Supply Shocks
- Federal Government Policy
- Business Cycles

- Industry Analysis
 - End of Chapter Material
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CHAPTER 18 Equity Valuation Models

- Valuation by Comparables
- Intrinsic Value versus Market Price
- Dividend Discount Models
- Price–Earnings Ratio
- Free Cash Flow Valuation Approaches
- The Aggregate Stock Market
- End of Chapter Material

CHAPTER 19 Financial Statement Analysis

- The Major Financial Statements
- Measuring Firm Performance
- Profitability Measures
- Ratio Analysis
- An Illustration of Financial Statement Analysis
- Comparability Problems
- Value Investing: The Graham Technique
- End of Chapter Material

PART VI OPTIONS, FUTURES & OTHER DERIVATIVES

CHAPTER 20 Options Markets: Introduction

- The Option Contract
- Values of Options at Expiration
- Option Strategies
- The Put-Call Parity Relationship
- Option-Like Securities
- Financial Engineering
- Exotic Options
- End of Chapter Material

CHAPTER 21 Option Valuation

- Option Valuation: Introduction
- Restrictions on Option Values
- Binomial Option Pricing
- Black-Scholes Option Valuation
- Using the Black-Scholes Formula
- Empirical Evidence on Option Pricing
- End of Chapter Material

CHAPTER 22 Futures Markets

- The Futures Contract
- Trading Mechanics
- Futures Markets Strategies
- Futures Prices
- Futures Prices versus Expected Spot Prices
- End of Chapter Material

CHAPTER 23 Futures, Swaps, and Risk Management

- Foreign Exchange Futures
- Stock-Index Futures
- Interest Rate Futures
- Swaps
- Commodity Futures Pricing
- End of Chapter Material

PART VII APPLIED PORTFOLIO MANAGEMENT

CHAPTER 24 Portfolio Performance Evaluation

- The Conventional Theory of Performance Evaluation
- Performance Measurement for Hedge Funds
- Performance Measurement with Changing Portfolio Composition
- Market Timing
- Style Analysis
- Performance Attribution Procedures
- End of Chapter Material

CHAPTER 25 International Diversification

- Global Markets for Equities
- Risk Factors in International Investing
- International Investing: Risk, Return, and Benefits from Diversification
- Assessing the Potential of International Diversification
- International Investing and Performance Attribution
- End of Chapter Material

CORPORATE FINANCE II

LEVEL II PAPER A5

PART IV Capital Structure and Dividend Policy

- **CHAPTER 15** Long-Term Financing: An Introduction
- **CHAPTER 16** Capital Structure: Basic Concepts
- **CHAPTER 17** Capital Structure: Limits to the Use of Debt
- **CHAPTER 18** Valuation and Capital Budgeting for the Levered Firm
- **CHAPTER 19** Dividends and Other Payouts

PART V Long-term Financing

- **CHAPTER 20** Raising Capital
- **CHAPTER 21** Leasing

PART VI Options, Futures and Corporate Finance

- **CHAPTER 22** Options and Corporate Finance
- **CHAPTER 23** Options and Corporate Finance: Extensions and Applications
- **CHAPTER 24** Warrants and Convertibles
- **CHAPTER 25** Derivatives and Hedging Risk

PART VII Short-term Finance

- **CHAPTER 26** Short-Term Finance and Planning
- **CHAPTER 27** Cash Management
- **CHAPTER 28** Credit and Inventory Management

PART VIII Special Topics

- **CHAPTER 29** Mergers, Acquisitions, and Divestitures
- **CHAPTER 30** Financial Distress
- **CHAPTER 31** International Corporate Finance

FINANCIAL REPORTING & ANALYSIS I

LEVEL II PAPER A6

CHAPTER 1: Introduction to Financial Reporting

- Development of Generally Accepted Accounting Principles (GAAP) in the United States
- Additional Input—American Institute of Certified Public Accountants (AICPA)
- Emerging Issues Task Force (EITF)
- A New Reality
- FASB Accounting Standards Codification
- Traditional Assumptions of the Accounting Model
- Using the Internet
- Summary
- Questions

CHAPTER 2: Introduction to Financial Statements

- Forms of Business Entities
- The Financial Statements
- The Accounting Cycle
- Auditor's Opinion
- Management's Responsibility for Financial Statements
- The SEC's Integrated Disclosure System
- Proxy and Summary Annual Report
- The Efficient Market Hypothesis and Ethics
- Harmonization of International Accounting Standards
- Consolidated Statements
- Summary
- Questions

CHAPTER 3: Balance Sheet

- Basic Elements of the Balance Sheet
- Statement of Stockholders' Equity
- Problems in Balance Sheet Presentation
- Summary
- Questions

CHAPTER 4: Income Statement

- Basic Elements of the Income Statement
- Special Income Statement Items
- Earnings per Share

- Retained Earnings
 - Dividends and Stock Splits
 - Legality of Distributions to Stockholders
 - Comprehensive Income
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CHAPTER 5: Basics of Analysis

- Ratio Analysis
- Common-Size Analysis (Vertical and Horizontal)
- Year-to-Year Change Analysis
- Financial Statement Variation by Type of Industry
- Review of Descriptive Information
- Comparisons
- Relative Size of Firm
- The Users of Financial Statements
- Summary
- Questions

CHAPTER 6: Short-Term Debt-Paying Ability

- Current Assets, Current Liabilities, and the Operating Cycle
- Current Assets Compared with Current Liabilities
- Other Liquidity Considerations
- Summary
- Questions

CHAPTER 7: Long-Term Debt-Paying Ability

- Income Statement Consideration when Determining Long-Term Debt-Paying Ability
- Balance Sheet Consideration when Determining Long-Term Debt-Paying Ability
- Special Items That Influence a Firm's Long-Term Debt-Paying Ability
- Summary
- Questions

INVESTMENT ANALYSIS & PORTFOLIO MANAGEMENT I

LEVEL II PAPER A7

PART 1 The Investment Background

1. The Investment Setting
2. The Asset Allocation Decision
3. Selecting Investments in a Global Market
4. Organization and Functioning of Securities Markets
5. Security-Market Indexes

PART 2 Developments in Investment Theory

6. Efficient Capital Markets
7. An Introduction to Portfolio Management
8. An Introduction to Asset Pricing Models
9. Multifactor Models of Risk and Return

PART 3 Valuation Principles and Practices

10. Analysis of Financial Statements
11. An Introduction to Security Valuation

DERIVATIVES ANALYSIS I

LEVEL II PAPER A8

PART I Insurance, Hedging, and Simple Strategies

- **CHAPTER 1** Introduction to Derivatives
- **CHAPTER 2** An Introduction to Forwards and Options
- **CHAPTER 3** Insurance, Collars, and Other Strategies
- **CHAPTER 4** Introduction to Risk Management

PART II Forwards, Futures, and Swaps

- **CHAPTER 5** Financial Forwards and Futures
- **CHAPTER 6** Commodity Forwards and Futures
- **CHAPTER 7** Interest Rate Forwards and Futures
- **CHAPTER 8** Swaps

PART III Options

- **CHAPTER 9** Parity and Other Option Relationships
- **CHAPTER 10** Binomial Option Pricing: Basic Concepts
- **CHAPTER 11** Binomial Option Pricing: Selected Topics
- **CHAPTER 12** The Black-Scholes Formula
- **CHAPTER 13** Market-Making and Delta-Hedging
- **CHAPTER 14** Exotic Options I

LEVEL II

1. **PAPER A9** – FINANCIAL REPORTING & ANALYSIS II
2. **PAPER A10** – INVESTMENT ANALYSIS & PORTFOLIO MANAGEMENT II
3. **PAPER A11** – DERIVATIVE ANALYSIS II
4. **PAPER A12** – ALTERNATIVE INVESTMENT

FINANCIAL REPORTING & ANALYSIS II

LEVEL III PAPER A9

CHAPTER 8: Profitability

- Profitability Measures
- Trends in Profitability
- Segment Reporting
- Revenues by Major Product Lines
- Gains and Losses from Prior Period Adjustments
- Comprehensive Income
- Pro Forma Financial Information
- Summary
- Questions

CHAPTER 9: For the Investor

- Leverage and Its Effects on Earnings
- Earnings per Common Share
- Price/Earnings Ratio
- Percentage of Earnings Retained
- Dividend Payout
- Stock Appreciation Rights
- Summary
- Questions

CHAPTER 10: Statement of Cash Flows

- Basic Elements of the Statement of Cash Flows
- Financial Ratios and the Statement of Cash Flows
- Alternative Cash Flow
- Procedures for Development of the Statement of Cash Flows
- Summary
- Questions

CHAPTER 11: Expanded Analysis

- Financial Ratios as Perceived by Commercial Loan Departments
- Financial Ratios as Perceived by Corporate Controllers
- Financial Ratios as Perceived by Certified Public Accountants
- Financial Ratios as Perceived by Chartered Financial Analysts
- Financial Ratios Used in Annual Reports
- Degree of Conservatism and Quality of Earnings
- Forecasting Financial Failure
- Valuation
- Summary
- Questions

CHAPTER 12: Special Industries: Banks, Utilities, Oil and Gas etc.

- Banks
- Regulated Utilities
- Oil and Gas
- Transportation
- Insurance
- Real Estate Companies
- Summary
- Questions

CHAPTER 13: Personal Financial Statements and Accounting for Governments & NGOs

- Personal Financial Statements
- Accounting for Governments
- Accounting for Not-for-Profit Organizations Other Than Governments
- Summary
- Questions

INVESTMENT ANALYSIS & PORTFOLIO MANAGEMENT II

LEVEL III PAPER A10

PART 4 Analysis and Management of Common Stocks

1. Macro-analysis and Micro-valuation of the Stock Market
2. Industry Analysis
3. Company Analysis and Stock Valuation
4. Technical Analysis
5. Equity Portfolio Management Strategies

PART 5 Analysis and Management of Bonds

6. Bond Fundamentals
7. The Analysis and Valuation of Bonds
8. Bond Portfolio Management Strategies

PART 6 Derivative Security Analysis

9. An Introduction to Derivative Markets and Securities
10. Forward and Futures Contracts
11. Option Contracts
12. Swap Contracts, Convertible Securities, and Other Embedded Derivatives

PART 7 Specification and Evaluation of Asset Management

13. Professional Money Management, Alternative Assets, and Industry Ethics
14. Evaluation of Portfolio Performance

DERIVATIVES ANALYSIS II

LEVEL III PAPER A11

PART IV Financial Engineering and Applications

- **CHAPTER 15** Financial Engineering and Security Design
- **CHAPTER 16** Corporate Applications
- **CHAPTER 17** Real Options

PART V Advanced Pricing Theory and Applications

- **CHAPTER 18** The Lognormal Distribution
- **CHAPTER 19** Monte Carlo Valuation
- **CHAPTER 20** Brownian Motion and Ito's Lemma
- **CHAPTER 21** The Black-Scholes-Merton Equation
- **CHAPTER 22** Risk-Neutral and Martingale Pricing
- **CHAPTER 23** Exotic Options: II
- **CHAPTER 24** Volatility
- **CHAPTER 25** Interest Rate and Bond Derivatives
- **CHAPTER 26** Value at Risk
- **CHAPTER 27** Credit Risk

ALTERNATIVE INVESTMENTS

LEVEL III PAPER A12

PART I Introduction

- Alternative Investments: An Overview
- The Role of Alternative Investments in Strategic Asset Allocation
- Trends in Alternative Investments
- Alternative Investments and Due Diligence

PART II Real Estate

- REITs and the Private Real Estate Market
- Commercial Real Estate
- Real Estate Investment Trusts
- Mortgaged-Backed Securities
- Mezzanine Debt and Preferred Equity in Real Estate
- Real Estate Appraisal and Valuation
- Performance of Real Estate Portfolios

PART III Private Equity

- Venture Capital
- Mezzanine Capital
- Buyout Funds
- Distressed Debt Investing
- Performance of Private Equity
- Private Equity: Risk and Return Profile

PART IV Commodities and Managed Futures

- Investing in Commodities
- Performance of Commodities
- Commodity Futures and Strategic Asset Allocation
- Managed Futures: Markets, Investment Characteristics, and Role in a Portfolio
- An Overview of Managed Futures' Performance: 1983 to Post-2008 Credit Crisis

PART V Hedge Funds

- Investing in Hedge Funds
- Performance of Hedge Funds
- Hedge Funds and Risk Management
- Hedge Funds and the Financial Crisis
- Hedge Funds: Replication and Nonlinearities
- Fund-of-Funds: A Tale of Two Fees

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