

# HOW TO PREPARE FOR—AND PASS—THE LEVEL I CFA<sup>®</sup> EXAM<sup>1</sup>

Jack S. Rader, CFA  
President, The Financial Analysts Review (FAR)

Passing the exam requires considerable effort. The more you do to prepare, the more likely it is you will pass.

This article is based on interviews and discussions with successful candidates. Much of the information provided is surprisingly timeless; that is, successful candidates in 2004 did many things that contributed to the success of candidates in 1983 when FAR started working with candidates.

In the pages that follow, we will discuss the requirements of the CFA program, describe the four keys to success in the program, and explain the seven factors that most successful candidates share. We hope you will use the information to prepare for and, ultimately, to pass the exam.

## The Big Picture: What You Should Know About the CFA Program

Passing the CFA exam requires:

- Commitment.
- Hard work.
- Perseverance.

The more you do to prepare, the better your chance of passing the exam.

## Pass Rates for the CFA Exams

Recent CFA Institute worldwide pass rates are:

	<b>2001-2003</b>	<b>2004</b>
Level I	45%	34%
Level II	47%	32%
Level III	69%	64%

Let's put this in perspective:

1. Given recent CFA Institute pass rates, a reasonable estimate of the implied probability of passing all three levels without failing any of the three exams is around 18-20%.

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2. Alternatively, according to CFA Institute, for every 100 candidates who enrolled in the program in 1996, 5 years later only 19 had received their charters.

This is why it is worth it to get the charter—it means a lot.

But don't be intimidated—after all there are over 65,000 active charterholders worldwide.

Hold in mind that the CFA Institute pass rates include only those candidates who actually completed the examinations. Over the last 10 years, the number of enrolled candidates that did not sit for the examinations has averaged 25 percent across the three Levels.<sup>1</sup>

## The CFA Curriculum<sup>2</sup>

CFA Institute ensures that the CFA curriculum is truly global. Additionally, it is grounded in the practice of the investment profession. Thus:

- CFA Institute determines those elements of the body of investment knowledge and skills that are important to charterholders in their practice by periodically (approximately every five years) conducting a job analysis involving CFA charterholders. (CFA Institute is currently conducting a new job analysis.)
- The Candidate Body of Knowledge (CBOK™) and the emphasis of each of the major topic areas on the CFA examinations is defined by the results of the survey.
- The CBOK is organized into four major topics:
  1. Ethical and Professional Standards
  2. Investment Tools
  3. Asset Valuation
  4. Portfolio Management
- The emphasis at *Level I* is tools and inputs and includes an introduction to asset valuation and portfolio management techniques.
- The emphasis at *Level II* is asset valuation and includes applications of the tools and inputs in asset valuation.
- The emphasis at *Level III* is portfolio management and includes strategies for applying the tools, inputs, and asset valuation models in managing equity, debt, and alternative investments for individuals and institutions.

Ethical and professional standards are covered at all three levels of the curriculum.

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<sup>1</sup> 2004 CFA Institute Study Guide.

<sup>2</sup> Based on the 2004 CFA Institute Study Guides, *Forty Years and Going Strong*, and the December Candidate Bulletin, all by CFA Institute.

## Overview: CFA Level I Exam

(Adapted from the *CFA Institute CFA Level I Study Guide 2005*)

<b>Ethical and Professional Standards (15% Topic Weight)</b>			
Demonstrate a thorough knowledge of the Code of Ethics and Standards of Professional Conduct (SS 1)			
The Code of Ethics - four components; Standards of Professional Conduct - five categories.	Know the purpose and scope, the application, and procedures for compliance.	Rules and sanctions re: disciplinary proceedings.	Goals, parties affected, and main topics and requirements of the GIPS.
<b>Investment Tools (50% Topic Weight)</b>			
Understanding the tools that support the investment analysis and valuation process (SS 2 – 11)			
Quantitative Methods (SS 2-3) <b>12%</b>	Economics For Valuation (SS 4-6) <b>10%</b>	Financial Statement Analysis (SS 7-10)	Corporate Finance (SS 11)
Statistics, data collection/analysis, and the following: Time value of money; statistics and probability analysis; sampling and hypothesis testing; correlation and regression; performance measurement.	Fiscal and monetary policy; banking; expectations; inflation and unemployment. Demand, supply, competition, price determination, financial markets, interest rates, and capital. Global trade and foreign exchange.	Thorough knowledge of financial accounting and the rules governing disclosure. Accruals, revenue recognition, cash flows; financial ratios and earnings per share; assets—inventory, capital assets, depreciation; liabilities—income taxes; debt; and leases.	Cost of capital; capital budgeting; cash flow estimation; risk analysis; capital structure and leverage; dividend policy; and discounted cash flow.
		} <b>28%</b>	
<b>Asset Valuation (30% Topic Weight)</b>			
Analysis and valuation of equity and debt; analysis of derivatives and alternative assets (SS 13-18)			
Securities Markets (SS 13)	Equity Investments (SS 14)	Debt Investments (SS 15-16)	Derivative Investments (SS 17)
Securities markets, market indexes, and efficient markets.	Security valuation, stock market analysis, industry and company analysis, technical analysis, and valuation models (DCF and price multiples).	Features, risks, sectors and instruments, yield spreads and fundamentals; valuation, yield measures, spot and forward rates, interest rate risk, term structure, and DCF applications.	Markets and instruments, forwards contracts, futures, options, swaps, and risk management applications of option strategies.
<b>Alternative Investments</b> Analysis of alternative investments (SS 18)		<b>Portfolio Management (5% Topic Weight)</b> Capital Market Theory (SS 12) Key elements of the portfolio management process, investment setting, investment policy, and asset allocation	
Mutual funds, exchange traded funds, real estate, venture capital, hedge funds, closely held companies, distressed securities, commodities and commodity derivatives.		Rate of return concepts, investor objectives and constraints, modern portfolio theory, and asset pricing models.	

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## The Four Keys to Success in the CFA Program

Charterholders we have interviewed tell us there four keys to success in the program.

### 1. Understanding the Purpose of the CFA Curriculum

The **purpose of the CFA Program** is to help candidates learn. CFA Institute has done an excellent job of testing knowledge rather than the ability to simply memorize lists.

### 2. The CFA program is based on self-study.

The Candidate Curriculum Committee (CCC) and CFA Institute staff choose curriculum materials to reflect the CBOK. The curriculum in turn provides candidates with detailed information on what to study. According to the 2005 Level I *CFA Institute Study Guide*:

- The CFA candidate curriculum uses two types of learning objectives:
  1. Topic-level learning objectives and
  2. Reading-specific learning outcome statements (LOS).
- A collection of topic-level learning objectives and reading-specific LOS makes up each study session; the primary purpose of topic level learning objectives and LOS in the CFA curriculum is to enhance candidate learning.

⇒ **LOS help you understand how each reading addresses the learning objective for the topic, and for a particular reading the LOS indicate what you should be able to accomplish after studying that reading.**

As a Level I candidate, it is critical to understand that you must learn the material that CFA Institute wants you to learn. **Let the LOS be your guide when you study.**

### 3. The amount of preparation necessary is significant.

Don't let anybody kid you. You have to put in the time studying and you have to study smart—that is you have to be:

- **Efficient** in what you do because there is a vast amount to learn.
- And you have to be **effective**—you have to **master** the assigned material (you must **learn the material not just memorize parts of it!!!**).

This means you need a **disciplined study program**. It will take more than just looking over one study session a week for 18 weeks—a lot more.

A note: At Level I, candidates who have an undergraduate or graduate-level finance degree will have an advantage over candidates who do not.

**However:**

- The CFA curriculum at Level I has material that is not found in most college courses.
- The standard to pass is higher than for many college courses.
- The time pressure on the exam is intense.
- An all day exam is a physically and mentally challenging event.
- An exam that tests as many different subjects as does the CFA exam is very different from a typical college level exam, even at the graduate level.

**4. The material you must learn is cumulative.**

For example, consider Portfolio Management:

At Level I—you must show a working knowledge of the basics:

- Diversification
- Correlation
- Systematic risk and beta
- Models like the CAPM

At Level II—you are expected to be able to apply what you know:

- More sophisticated models like APT are included
- What was learned at Level I is applied in pricing securities, telling whether a security is under priced, and so forth
- Problems with using the S&P 500 Index as a proxy for the market when using CAPM are explained (e.g., benchmark problems)
- The importance of knowing the investor is introduced as are asset allocation and the CFA Institute model of investment policy – risk tolerance, return objectives, and constraints

At Level III—synthesis and integration are the key along with demonstrating good judgment:

The portfolio management material expands to include:

- In depth analysis of pension plans (defined benefit and defined contribution), insurance companies, foundations and endowments, and individuals
- Global portfolio management
- Sophisticated understanding of alternate asset allocation and rebalancing strategies
- Tying everything together—choose which of several derivatives strategies is best given a specific client and the client's risk tolerance, return objectives, and constraints and justify your choice.

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## The Seven Factors Necessary to Pass the Level I CFA Exam

What does it take to pass the Level I exam? Here's what the charterholders we have interviewed say:

1. **Commit to learning the material**—all of it, not just the topics you like. CFA Institute will test you in every topic. Even though the CFA examination is a compensatory examination, if you know nothing at all about a major area, it will be hard to score enough points in another area to pass.
2. **Start early**—build in some slack to allow for emergencies later.
3. **Study with the exam in mind**—let the LOS be your guide. Pay close attention to the command words in each (even though a word like “explain” can be hard to apply in a multiple choice question).

As a Level I candidate, your exam will consist of all multiple-choice questions. The objective nature of this type of exam means that, when you study, you should be:

- Learning to recognize true statements of fact.
- Thinking about false statements that could be made.
- Considering what items must be present to make something true or correct.

Multiple-choice questions frequently require calculations and often require that you know definitions.

4. **Rehearse—work examples**, do calculations, work practice questions.

The time pressure on the exam is intense—many candidates run out of time and leave questions unanswered on the exam. A primary reason is not having worked through problems in the course of preparing.

Another reason is not being familiar with your calculator. Use your calculator often so that you will be proficient when it is time to take the exam.

5. Study **every topic**—leave nothing out.
6. When you are working on practice problems, practice exams, or sample exams provided by CFA Institute:
  - Try to answer each question/solve each problem **before looking at the answer**.
  - This is critical if you are to develop the **essential skill of converting what you know into the correct answer**.
7. Finally, and most critically, **be engaged in your study**. Recognize that your objective in studying is to learn the material in a manner that will permit you to respond correctly and quickly to questions based on the LOS. You should not simply read everything three times or put in time just turning pages; your time is too valuable. Rather, you should be seeking to engrave the appropriate response to the LOS on your brain. Write as you study—it will keep you focused on the material—you will learn better.

## The bottom line—there is no substitute for preparation.

CFA Institute suggests a minimum of 10-15 hours a week for approximately 5 months. Given the breadth and depth of the curriculum, this understates the time needed for many candidates.

Note also that an important part of your study is reviewing what you have studied. A good rule of thumb is to have completed all the readings at least one month in advance of the examination. The final month should be spent reviewing the material.

## Allocation of Effort among Topics

The best guideline in allocating your time and effort is to **start with CFA Institute’s published weightings and then allocate more or less time to a given topic depending on your knowledge of that topic and your background.**

In terms of the allocation of the questions among different topics or subjects, the following numbers may be useful in helping you decide where to direct your efforts.

<b>Guideline Topic Area Weights</b> (Page 5, 2005 CFA Institute Level I Study Guide)			
	<b>Weight</b>	<b>Approximate Minutes</b>	<b>Average Study Time<sup>3</sup></b>
Ethical & Professional Standards	15%	54	45 hrs.
Quantitative Analysis	12%	43	36 hrs.
Economics	10%	36	30 hrs.
Financial Statement Analysis <sup>1</sup>	28%	101	84 hrs.
Asset Valuation <sup>2</sup>	30%	108	90 hrs.
Portfolio Management	5%	18	15 hrs.
<b>TOTAL</b>	<b>100%</b>	<b>360</b>	<b>300 hrs.</b>

1. Study Sessions 7-11; includes Corporate Finance.
2. Study Sessions 13-18 (excluding SS 12, Portfolio Management).
3. Implied by a 300 hour study program.

Several observations regarding these allocations may be helpful.

1. Asset Valuation (30%) and Financial Statement Analysis including Corporate Finance (28%) are the major emphasis on the Level I examination. Without strong performance on these two topics—and all of their subtopics—it will be difficult to pass.

Asset Valuation will continue to be fairly objective and specific. This is a demanding area, and requires considerable knowledge and effort to be in a position to answer the kinds of questions you are most likely to encounter.

Expect and prepare for questions on:

- Equity investments.
- Debt investments.
- Derivatives investments.
- Alternative investments.

Financial Statement Analysis (including Corporate Finance) will be just as important as Asset Valuation. The questions in this area can be quite difficult, so you must master this material to a reasonable degree. Fortunately, as with all other areas, the Financial Analysts Review offers some of the best instruction possible for Level I Financial Statement Analysis.

2. Ethical and Professional Standards is 15% of the Level I examination. This topic is always an important part of every examination, and one that you should pay attention to and perform well on. Count on it being 15% again—CFA Institute takes ethics very seriously. Learning the Code and Standards will pay dividends at Levels II and III, as the Code and Standards are also the basis for the Level II and III ethical and professional standards questions.
3. Both Economics and Quantitative Analysis will be tested. Allocate your time in accordance with the weights in the preceding table adjusted for your background. For candidates without good backgrounds in these topics, this can be very difficult material.
4. Portfolio Management will be on the examination. By the time you get to Level III, it will *be* the examination (at least a very large part of it) so anticipate some questions this year. Don't neglect it even though it is only 5%.

Given the above, we have the following suggestions:

**1. Write out a study plan.**

- Leave 3-4 weeks at the end to review everything, take a practice exam or two, work problems, and review all the LOS.
- Begin by looking over all the material. This is where good study notes can come in handy. Going through everything at the beginning will trigger the learning process and will show you how various topics relate to each other.
- When you start in depth study of each study session, allow time every three weeks or so to go back over what you have studied so you don't forget the material.

2. **Have a folder for each study session or topic.** As you study, take notes and put them in the appropriate folder. Put examples of problems in the folders. Put everything you think will help you in the folders. When it comes down to the last few weeks—and during your periodic reviews—you will find these folders of great help.

3. **Some topics may require proportionately more study time than others** relative to the announced weight for the exam depending on your strengths and weaknesses. Allow for this.
4. **Make sure you stay on schedule.** Otherwise you could find yourself out of time with one or more major topics yet to cover.
5. Consider scheduling the harder topics early in your study program so you can get a good overview and then return to the topic at a later date to refine and review one or more times.
6. **Study every topic,** leave nothing out.

### **What You Need to Know About the Examination**

The examination itself will consist of two sub-examinations, a morning session and an afternoon session, that for practical purposes are simply mirror images of each other. You will receive a book of questions and an answer form at the beginning of the morning session that must be turned in at the end of the morning session, and you will receive an entirely different examination book and answer form at the beginning of the afternoon session. Therefore, you will only be able to work on the first set of questions in the morning, and only on the second set of questions in the afternoon.

#### **Time Pressure**

Each half-day examination will contain 120 multiple choice questions, each with four possible answers. Therefore, the examination in total will consist of 240 questions. Since you are allowed three hours for each half-day examination, or 180 minutes, this means you have, on average, 1½ minutes to read, analyze, and answer each question.

- **This tight time allocation poses one of the major challenges of the Level I examination.**
- This means you have to prepare yourself to **be disciplined** when taking the exam, and you **must know the material extremely well.**

#### **Challenging Questions**

Many candidates find that some of the questions require more knowledge than they had anticipated. Consider for example, the following questions:

1. When prices are rising, the use of the LIFO inventory method as compared to FIFO will result in:
  - A. higher cost of goods sold.
  - B. lower cost of goods sold.
  - C. the same cost of goods sold.
  - D. cannot be determined.

2. When prices are rising, the use of the LIFO inventory method as compared to FIFO will result in:

	<u>Cost of Goods Sold</u>	<u>Inventory Levels</u>
A.	Higher	Higher
B.	Higher	Lower
C.	Lower	Lower
D.	Lower	Higher

3. When prices are rising, the use of the LIFO inventory method as compared to FIFO will result in:
- higher cost of goods sold, inventory levels, and cash flow from operations.
  - higher cost of goods sold and cash flow from operations, but lower inventory levels.
  - lower cost of goods sold and cash flow from operations, but higher inventory levels.
  - lower cost of goods sold and inventory levels but higher cash flow from operations.

As you can see, the three questions are identical. What differs from question to question is how well you must know the material to select the right answer.

**(Answers: A, B, B)**

**Now consider the possibilities for this one area of the curriculum.** During periods of rising prices the impact of the use of LIFO and FIFO on the financial statements is as follows:

	<u>LIFO</u>	<u>FIFO</u>
<b><i>Income Statement:</i></b>		
Cost of Goods Sold	higher	lower
Income before Tax	lower	higher
Income Taxes	lower	higher
Net Income	lower	higher
Gross Profit Margin	lower	higher
<b><i>Balance Sheet:</i></b>		
Ending Inventory	lower	higher
Current Assets	lower	higher
Long-term Assets	no effect	no effect
Total Assets	lower	higher
Working Capital	lower	higher
<b><i>Cash Flow Statement:</i></b>		
Cash Flows from Operations	higher	lower
Cash Flows from Financing	no effect	no effect
Cash Flows from Investing	no effect	no effect
<b><i>Ratios:</i></b>		
Inventory Turnover	higher	lower
Current Ratio	lower	higher
Quick Ratio	no effect	no effect

**Note that all of the above can be written to require calculations as well.**

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### In Summary

Let's summarize some major points you should keep in mind.

1. Knowing the material well will be critical to success on the CFA examination, and self-study is an important component of gaining this knowledge. **There is no substitute for self-study and preparation in order to achieve success on the CFA examinations.**
2. Let the Learning Outcome Statements guide your study.
3. Be sure you can work your calculator, and use it regularly in your study.
4. Try to solve problems/answer questions before looking at the answers—this usually means waiting until you have had time to study the topic.
5. Have a plan—and work your plan.
6. Study all topics—neglect nothing.
7. To pass, and ultimately to obtain the charter, you must understand the goals of the program and act in accordance with what the program is trying to achieve. Consider the following from a letter to candidates (28 July 2004) written by Theodore R. Aronson, CFA, Chair, CFA Institute, and Thomas A. Bowman, CFA, President & CEO, CFA Institute:

“We strongly believe that populating the investment industry with competent, ethically centered professionals is the most worthy endeavor CFA Institute can offer to the global investment community. We believe just as strongly, however, that there are no short cuts or magic tricks to earning the CFA designation as some would lead you to believe. It is for this reason that the CFA designation enjoys such a sterling reputation throughout the global investment community, respected by employers, investors, and fellow investment professionals because they know successful completion of the CFA Program represents a substantial achievement. For the same reason, you can be certain that the CFA Institute Board of Governors is absolutely committed to maintaining the program's high standards, independent of variations in candidate performance.”

⇒ Understand what you have gotten into.

Don't let the challenge or the low worldwide pass rates discourage you.

The pass rates are not representative of the probability of passing the examination for people who prepare properly.

⇒ When you have obtained the charter, you will know it was well worth the effort.