



**THE CFA[®] PROGRAM
WHERE THEORY
MEETS PRACTICE**



CFA Institute

THE CFA PROGRAM

On 15 June 1963, 284 senior analysts sat for the first CFA® Program exam in various cities throughout the United States and Canada. During the initial year, the equivalent of the current CFA Program Level III exam was the only examination required to earn the CFA charter. According to C. Stewart Sheppard’s *The Making of a Profession: The CFA Program* (1992), “... 268 were successful, and those who failed attributed it mainly to their lack of adequate preparation” (p. 8).

The program has evolved greatly since its inception. It began with a focus on equity security analysis in a US setting and emphasized ethical and professional standards. Today’s CFA Program covers a much broader Candidate Body of Knowledge™ (CBOK™), as shown in Figure 1, which reflects the investment profession’s continuing evolution. Although equity security analysis and ethical and professional standards remain prominent aspects, the program now also includes fixed-income analysis, alternative and derivative investments, portfolio management, and several other topics—all set in a global context. The current program is best described as a self-study, distance-learning program with a generalist approach to investment analysis, valuation, and portfolio management.

The program continues to emphasize the highest ethical and professional standards.

This article describes the CFA Program process in detail. You will learn how the Candidate Body of Knowledge (CBOK) and curriculum are established, how the items are written, examinations are developed and administered, and finally, how the examinations are graded and how the minimum passing score is determined. After reading this article, we hope that you will conclude that the current CFA Program enhances the value of the CFA charter. Past CFA Institute Chair Frank Reilly, CFA, has aptly described the charter as the “crown jewel” of CFA Institute.

FIGURE 1
CFA PROGRAM CANDIDATE BODY OF KNOWLEDGE (CBOK)

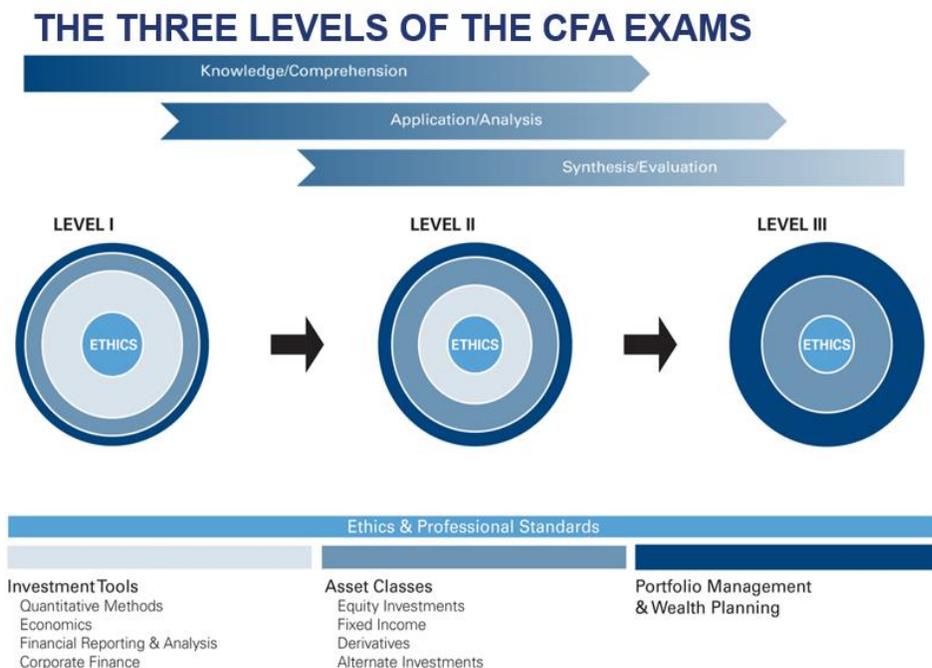
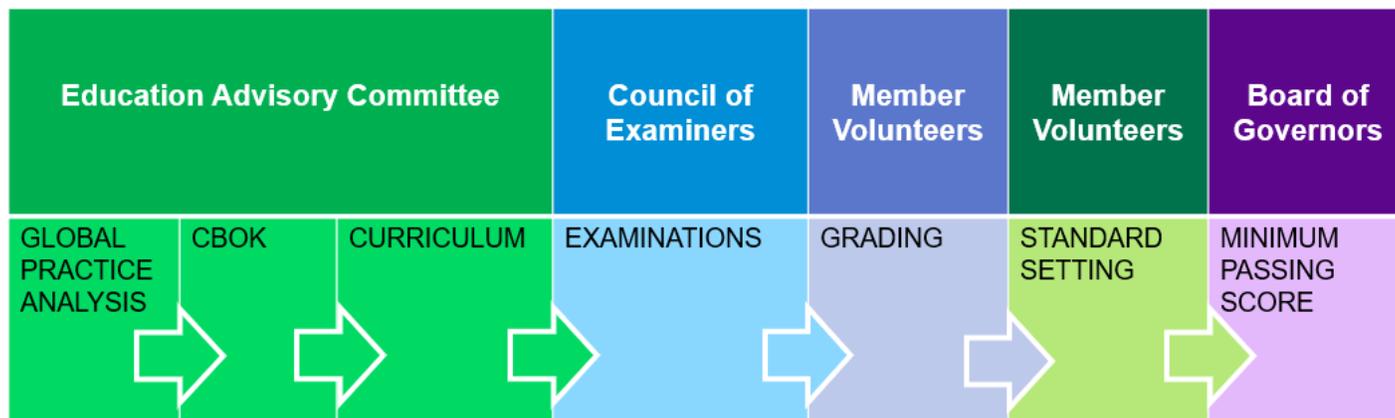


FIGURE 2
THE CFA PROGRAM PROCESS



The CFA Program Process

The success of CFA Program relies on active practitioner involvement. Practicing CFA Charterholders are involved at every stage of the process, as Figure 2 illustrates. The program is not primarily an academic one—rather, it focuses on the global investment management profession from a practitioner’s standpoint. The CFA Program process begins with a global practice analysis—discussions with subject matter experts, industry stakeholders, and practitioners, followed by a survey of current practicing investment management professionals—to develop the CBOOK, which is the program’s foundation. The Education Advisory Committee (EAC), a group of prominent volunteer CFA Institute members, leads this process, with critical input from supporting committees. With the CBOOK determined, CFA Institute staff, members, and consultants design the curriculum with EAC oversight of the process. The Council of Examiners, another group of prominent volunteer CFA Institute members, then advises on issues in the development of the CFA Program exams. The items are developed by the CFA Program item writing teams, a group of CFA Charterholders who write items based on the curriculum. CFA Examinations are constructed by CFA Learning Experience & Assessment Development (LEAD) staff using the exam blueprints, test specifications, and psychometric criteria to ensure every constructed exam is faithful to the curriculum in addition to being valid and reliable.

After administration of the examinations, CFA Charterholders from around the world virtually grade the constructed response (essay) portion of the Level III examinations. Multiple-choice and item set portions of the Levels I, II, and III exams are machine graded. With grading concluded, additional groups of Charterholders convene to “set the standard” for the examinations and recommend the minimum passing score. Members of the CFA Institute Board of Governors then determine the minimum passing score for each exam level.

Candidates receive their examination results approximately two months after the exam. Only after passing the CFA Program Level III exam and fulfilling the CFA Program work-experience requirement can a candidate use the coveted CFA designation.

Global Practice Analysis

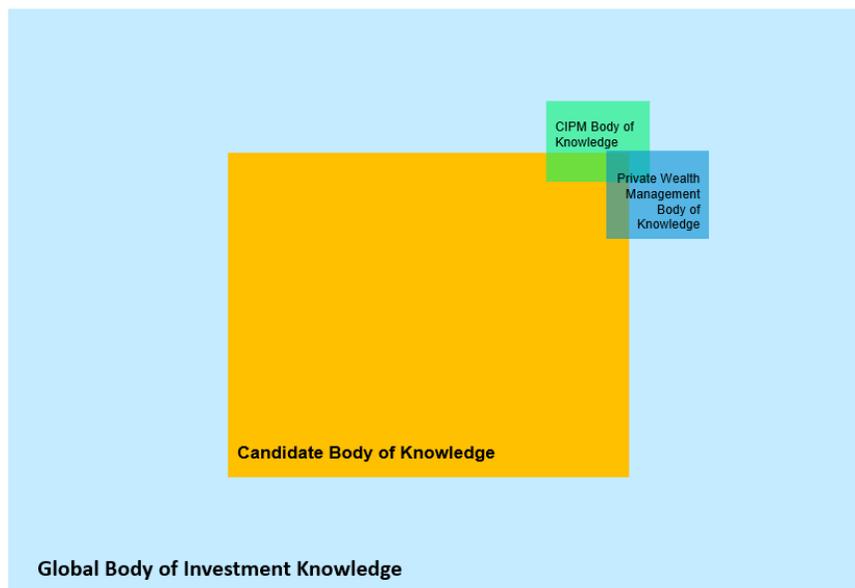
Many credentialing agencies use standardized examinations to ensure that candidates demonstrate sufficient competence in their particular fields of practice. The claim that a candidate’s performance on an exam provides a meaningful indicator of professional competence depends on evidence that supports the exam’s job-relatedness or content validity. The Standards for Educational and Psychological Testing state that a practice analysis study—a compilation and confirmation of the knowledge and skills required for competent professional practice forms the basis for establishing the content validity of credentialing examinations. CFA Institute has worked closely with psychometricians (experts in testing and measurement) to develop and refine a high-quality practice analysis.

The CFA Institute Board of Governors first commissioned a practice analysis in 1995; previously, committees of Charterholders developed the CBOOK. In 2000, the CFA Institute Board of Governors commissioned Knapp and Associates International, Inc., to assist staff in conducting a second practice analysis.

Since that time, a number of associated committees and working bodies have been created to provide guidance to the EAC. In 2017, a Society Practice Analysis Consortium was established with an inaugural group of 10 societies to provide the EAC with inputs on trends in the investment management industry, topics/issues for evaluation, and emerging issues in the marketplace that may require analysis.

A series of panels and committees consisting of prominent investment practitioners created an inventory of critical responsibility and knowledge areas. These panels of CFA Charterholders around the world were selected to represent the profession’s diversity with respect to geography, work setting, and professional role. The resulting inventory was converted to a survey, and a total of 16,103 surveys were mailed to a global sample of Charterholders. The results confirmed the work of the panels and committees in identifying the most critical knowledge areas for investment management professionals.

FIGURE 3
BODIES OF KNOWLEDGE



This practice analysis guided the development of the CFA Program curriculum and examination specifications. CFA Institute began its third formal practice analysis in late 2004.

As with the processes in 1995 and 2000, regional expert panels were convened to define a CBOK that reflected the knowledge, skills, and abilities (KSAs) required of a generalist investment practitioner with four years of experience. A new feature of the third practice analysis was the addition of groups of senior investment management professionals, known as employer panels, to define the KSAs expected of new Charterholders. The expert and employer panels were followed by a broad survey of all active CFA Charterholders in February 2006, and a revised CBOK based on the results of the new practice analysis became available in November 2006. The 2008 curriculum and examinations fully incorporated this revised CBOK. In 2007, the EAC decided to conduct the practice analysis continuously rather than every five years to ensure that the CBOK continues to reflect the investment management industry's ever-changing demands.

A continuous process allows for more real-time inputs while maintaining the CBOK's high standing. The continuous practice analysis process also incorporates significantly more member input, in the initial phase, using social media and other online venues to collect input from investment management professionals around the world. In addition, the focus was expanded to include the development of a Global Body of Investment Knowledge™ (GBIK™).

The GBIK is a comprehensive outline of knowledge for the investment management profession. Investment management professionals can use GBIK concepts at any stage of their career—novice through expert, and generalist or specialist.

The GBIK includes mainstream and frontier concepts based on research that has been or is being debated, and it may encompass views well outside the mainstream. CFA Institute

staff use the GBIK to guide all CFA Institute lifelong learning activities, including publications, conferences, and other continuing education programs. CFA Institute also develops the CBOK for the Certificate in Investment Performance Measurement (CIPM®) Program as well as specialty bodies of knowledge for those members practicing in investment specialties such as private wealth management (see Figure 3).

In September 2009, the GBIK was published for the first time. This revised GBIK reflects many new and enhanced topics identified through the continuous practice analysis process. Since then, the GBIK has been updated annually to reflect the changes identified by practitioners through this process. The current GBIK is available on the CFA Institute website (www.cfainstitute.org/gbik).

In response to the 2008 global financial crisis, the EAC expanded the scope of the practice analysis process to include input from university faculty, exam preparation providers, regulatory bodies, and policymakers. The EAC determined that establishing a partnership with these bodies will ensure that the GBIK and CBOK are relevant to investment management professionals and will contribute to a well-functioning capital market. "Widening the funnel" into practice analysis has resulted in a more robust exchange of ideas in the panel sessions. Since 2008, these expert and employer panel sessions have taken place in 32 cities in the three CFA Institute geographic regions— the Americas; Europe, the Middle East, and Africa; and Asia Pacific.

The discussions at these panel sessions have identified revisions necessary to maintain the relevance of the GBIK and CBOK.

Candidate Body of Knowledge and Topic Area Weights

A major outcome of the practice analysis is an updated CBOK. The CBOK reflects the scope of knowledge needed for basic competence in investment management, with “basic competence” defined as the baseline level of knowledge and skills required to perform professional responsibilities in an effective and ethical manner.

The CBOK has been gradually broadened from the body of knowledge contained in the initial CFA Program curriculum, which focused primarily on (1) investment goals, investment timing, and portfolio balance; (2) institutional investing; (3) ethical issues; and (4) review of securities regulations. Since then, entire topic areas—such as fixed income, derivatives, alternative investments, and taxes and estate planning—have been added to keep pace with the changing profession. Because the CFA Program is global in scope, and because laws and regulations differ among countries, the CBOK does not include specific country securities regulations—but instead includes, for example, a reading on the economics of financial market regulation.

To prepare CFA Charterholders for the global marketplace, the CBOK does reflect globally accepted reporting standards, such as the International Financial Reporting Standards, as well as common tax and legal regimes that affect investment decision making, all of which are illustrated through examples in local jurisdictions.

In the CBOK, a total of 10 topics are grouped into four functional areas, as shown in Figure 1: ethical and professional standards, investment tools, asset valuation, and portfolio management and wealth planning. The CFA Program exams have always focused primarily on testing investment tools at Level I, asset valuation (investment analysis) at Level II, and portfolio management at Level III. This structure is the logical progression of the investment process. A practitioner needs to master investment tools to apply those tools to asset valuation, and assets need to be valued and then analyzed in a risk–return portfolio context. The sequence also corresponds to the path that typical candidates might follow as they progress through their careers.

Because integrity must be exercised throughout the investment process, CFA Institute emphasizes ethical and professional standards at each level. Although all CBOK topic areas relate directly to competence in investment management, they have differing degrees of significance for professional practice. Some areas may be more important or used more frequently than others in day-to-day responsibilities. Consequently, based on the results of the practice analysis, study weights are assigned to each topic area to indicate relative emphasis within the CBOK. In turn, these weights, shown in Table 1, guide the development of the curriculum and examinations.

TABLE 1
TOPIC AREA WEIGHTS

Topic Emphasis	CFA Level I	CFA Level II	CFA Level III
Ethical and Professional Standards	15-20%	10-15%	10-15%
Quantitative Methods	8-12%	5-10%	--
Economics	8-12%	5-10%	5-10%
Financial Reporting & Analysis	13-15%	5-10%	--
Corporate Finance	8-12%	5-10%	--
Equity Investments	10-12%	10-15%	10-15%
Fixed Income	10-12%	10-15%	15-20%
Derivatives	5-8%	5-10%	5-10%
Alternative Investments	5-8%	5-10%	5-10%
Portfolio Management & Wealth Planning	5-8%	10-15%	35-40%
Total	100%	100%	100%

Curriculum Development

The Curriculum Process

The CFA Program curriculum constitutes the study material that forms the basis for the examination items. The curriculum topics are those CBOK elements identified in the practice analysis.

The curriculum's purpose is to prepare CFA candidates for the investment management profession and to facilitate their preparation for the exams. Each year, more than 250 investment professionals around the world participate in the annual curriculum review and development process.

The CFA Program is fundamentally different from typical university programs. In the program's early days, the curriculum consisted of textbooks, professional journal articles, commissioned readings, case studies, and research analysts' reports.

In 1996, CFA Institute significantly improved the curriculum's effectiveness by adding learning outcome statements (LOS) at Level LOS were then incorporated at Levels I and II in the following year.

The purpose of the LOS is to enhance candidate learning while guiding examination writers as to what examination items the curriculum material will support. The LOS serves as the link among the CBOK, the curriculum, and the examination, helping candidates prepare for the exacting standards of the investment management profession.

Reading-specific LOS help candidates frame the knowledge they must gain from each reading. Each LOS contains the words "The candidate should be able to..." followed by command words (such as "calculate," "describe," and "analyze") that indicate the knowledge and skills candidates will be expected to demonstrate on the examinations and in their professional positions.

The exam writing team writes examination items within the bounds of the LOS, often integrating more than one LOS into an item. The exam writing team views the LOS as a contract with the candidates. If candidates can do what the LOS indicate, they should be well prepared for the examinations. It is the job of the CFA Institute staff, with process oversight of the EAC and the input of members, to ensure that the readings enable candidates to achieve the appropriate mastery of the skills reflected in each of the LOS.

The following is an example of the Level II reading-specific LOS from "**Multinational Operations**," by Timothy S. Dounnik and Elaine Henry, CFA (CFA Institute, 2013).

The candidate should be able to:

- a) distinguish among presentation (reporting) currency, functional currency, and local currency;
- b) describe foreign currency transaction exposure, including accounting for and disclosures about foreign currency transaction gains and losses;
- c) analyze how changes in exchange rates affect the translated sales of the subsidiary and parent company; and
- d) compare the current rate method and the temporal method, evaluate how each affects the parent company's balance sheet and income statement, and determine which method is appropriate in various scenarios.

Curriculum Innovations

In response to candidate demand, CFA Institute began phasing in a customized format for delivering the curriculum for the 2006 exam. CFA Institute sequenced the LOS and assigned readings in conformity with the study sessions and assembled those components into self-contained volumes. The improved packaging offers candidates a user-friendly and integrated curriculum that reduces candidate costs and facilitates examination preparation at no additional cost to candidates.

Another curriculum delivery innovation was the release of the curriculum eBook in 2010. The eBook provides access to the curriculum in digital format. In 2019, CFA Institute launched the Learning Ecosystem to advance the quality and relevance of the CFA Program. This cutting-edge digital platform helps modernize and personalize the learning experience and better maintain fidelity to the practice.

Historically, the curriculum was drawn from existing professional and academic publications. CFA Institute advisory committees, however, recognized the disadvantages of these off-the-shelf sources.

For instance, college texts are often overly academic and "country-centric," and practitioner texts are rare and often inappropriate for a generalist. Journal articles often presume more knowledge than is required of a generalist. Perhaps the greatest weakness in off-the-shelf products is that they often contain a significant amount of material outside the CBOK, and sometimes omit important concepts included in the CBOK. As a result of these disadvantages, the decision was made by CFA Institute to begin developing curriculum readings specifically for the CFA Program. Written by investment practitioners and leading academics, these readings balance conceptual rigor with the application perspective of financial analysts and portfolio managers. As of July 2015, almost 96% of the CFA Program curriculum consists of material commissioned by CFA Institute.

Curriculum development is not a recent phenomenon at CFA Institute. In **The Making of the Profession: The CFA Program**, Sheppard notes the “marked paucity in 1965 of relevant study guide materials” and states, “Gone were the days when reliance could be placed on general textbooks and selected articles” (p. 10). Since that time, CFA Institute (then known as the Institute of Chartered Financial Analysts and later as the Association for Investment Management and Research) has worked closely with many subject matter experts, authors, and publishers to customize materials for the CFA Program.

A cornerstone of the CFA Program curriculum has been the book **Managing Investment Portfolios**, edited by John L. Maginn, CFA, and Donald L. Tuttle, CFA (1983). In 2006, the third edition of this seminal work was edited by Dennis W. McLeavey, CFA, and Jerald E. Pinto, CFA, in collaboration with the two original editors, and it remains the foundation of the portfolio management curriculum. Beginning in 2000, CFA Institute commissioned a series of books to provide curriculum content in corporate finance, fixed income, derivatives, quantitative methods, financial reporting and analysis, and equity valuation. Since their introduction to the curriculum, many of these readings have been revised or replaced in response to advances in the investment management industry. In addition, the Levels I and II fixed-income readings (2013), Levels I and II economics curriculum (2012), Level I derivatives curriculum (2015, with updates of Level II planned for 2016), and Level III behavioral finance readings (2011) were commissioned to replace externally developed material.

The following principles have been established for CFA Program curriculum development. The material must be:

- faithful to the practice analysis and CBOK;
- valuable to members, employers, and investors;
- globally relevant;
- generalist (as opposed to specialist) in nature;
- appropriate for a new Charterholder;
- replete with examples and practice problems both within and at the end of readings;
- pedagogically sound in a self-study framework; and
- testable.

A distinguishing feature of the curriculum development at CFA Institute is the extensive review process that all products must undergo. Practicing investment management professionals review each reading or article to ensure that it is conceptually correct and relevant. Practitioners from all over the world participate in this process. Frank Fabozzi, CFA, a long-time contributor to the CFA Program curriculum, commented, “Of all the books I have authored (more than 100), these books have been the hardest to write... The reviewers made me an almost paranoid writer, as every word and statement was scrutinized to make sure it would be clearly understood by the CFA candidate.

The CFA Institute University Affiliation Program recognizes academic institutions that embed a significant portion of the CBOK, including the CFA Institute Code of Ethics and Standards of Professional Conduct, into their curricula. Through cooperation with universities around the world, we seek to promote ethics-based investment education in university degree programs aimed at developing investment professionals.

Participation in the University Affiliation Program signals to potential students, employers and the marketplace that a university’s curriculum is closely tied to professional practice and is helpful to students preparing for the CFA Program exams. To find out more about CFA Institute university outreach initiatives, visit the “For Universities” page on the CFA Institute website (<https://www.cfainstitute.org/en/about/universities>).

Candidate Products

Creating a custom curriculum allowed CFA Institute to move away from a series of textbooks and begin producing only those readings that it required candidates to study. The readings are custom developed and tailored to the program; they are written from the perspective of the global investment industry, and they are focused on teaching candidates the body of knowledge without the inclusion of excessive, extraneous content not directly related to the program.

Candidates have consistently asked for more practice problems to practice by “doing,” reinforce concepts, test retention of concepts, and see how concepts might be tested on the live exam. To address this request, we make sure the curriculum readings are rich with samples of practical application of the content. We also continually add to the number of end-of-reading items that we produce.

Moreover, we provide a large repository of practice problems through an item bank organized by topic—typically, 30 to 40 multiple-choice items or one or two item sets, depending on topic weight. Topic-based assessments allow candidates to make effective use of the practice problems before having worked through all topics. Once candidates are in the final leg of their studies, they also have mock exams available. These exams cover all topics and are an attempt to replicate the exam-day experience in terms of difficulty, length, and topic weights.

Candidates in a self-study program must manage their study time.

To help candidates internalize the time commitment and devise a plan for consistently studying, CFA Institute developed a web-based “study planner” that uses topic-area weights (adjusted for differences in curriculum weights) compared with the time available for study before exam day to suggest completion dates for each topic. The planner dynamically adjusts when candidates are running ahead of or behind schedule.

Examination Development

When the first CFA charters were awarded in 1963, candidates had to successfully complete a single four-and-a-half-hour examination to earn the charter. The exams were given in two separate sessions of two hours and 15 minutes. In 1964, all three levels of the examination were administered to 1,732 candidates in the United States and Canada. In 1968, each exam consisted of two sessions for a total of five hours and 15 minutes. The year 1981 marked the first time that the examinations totaled six hours in length. CFA Institute retained the format of two separate three-hour sessions for each of the three exam levels. In 2021, the CFA Program was administered for the first time as a computer-based test (CBT). Additionally, there was a reduction in the number of items on each of the exam levels and the inclusion of unscored items used to investigate item quality before placement into the item bank. The reduction was evaluated through an independent psychometric investigation of the CFA exam, two key points emerged:

- First, reducing the length of the Level I exam to 180 items did not impact the Total exam reliability. Reliability indicates how consistently an exam measures candidates' knowledge. Throughout the assessment industry, a reliability score at or over 0.90 is considered superior. The exam length reduction maintains this high standard for the CFA Program. Therefore, candidates should have the same confidence in exam results from the 180-item exam as they do in results from a 240-item exam.
- Second, and more importantly for a credentialing exam, reducing the length of the Level I exam to 180 items did not impact the consistency of the pass/fail decisions being made based on exam scores. Therefore, candidates can have the same confidence in the pass/fail decisions being made from the 180-item exam as the 240-item exam. The advantage is that getting to this decision will be accomplished more efficiently.

Studies of CFA Levels II and III produced similar key takeaways.

It is important to note that the reduction in exam length will not impact the inclusion of any curriculum topics or learning outcome statements on the exam. Rather, each Topic will be sampled proportionally with approximately 25% fewer items. Therefore, candidates are still responsible for studying the entire curriculum and for preparing to be tested on any of the included knowledge, skills, and abilities. The approach of CFA Institute to selecting items for a shorter exam is same as for the longer exam; apply the sampling strategy from the exam blueprint and cover the same rigorous sampling of learning outcome statements from each Topic as before and meet the same psychometric criteria. As a result, the exam will continue to rigorously measure achievement on the breadth and depth of the intended domain, producing scores that support valid pass/fail decisions.

Examination Content

A commitment to excellence in the development of the CFA Program exams has been the program's hallmark. The CFA Program item writing team writes the items with the assistance of CFA Institute staff. In 1963, the original CFA Program item writing team consisted of four US academic experts and the president of the Montréal Stock Exchange. Today, more than 100 CFA Charterholders from around the world serve on the CFA Program item writing team. The team consists of approximately 70% practitioners and 30% academics. Another large and globally diverse group of Charterholders is involved in an extensive review process. CFA Program item writing team members are recruited based on their expertise in different areas of investment practice and CFA Program curriculum topics.

Prospective members are often identified based on other services supporting the CFA Program (e.g., global item review, standard setting, curriculum development, and grading).

CFA Institute follows the professional advice of expert psychometricians on all aspects of testing, including exam design, item structure, and exam performance evaluation. CFA Institute uses three item formats on its examinations. Selected response items are simple multiple-choice at Level I and item sets at Levels II and III. Item sets are composed of four or six multiple-choice items, and each set relates directly to case information provided in narrative and/or tabular form. All selected response items have three answer choices. Constructed response (essay) items appear only on the Level III exam.

These formats support the primary focus on knowledge and comprehension at Level I, application and analysis at Level II, and synthesis and evaluation at Level III. Given the nature of the profession and the targeted learning outcomes, candidates are asked to analyze financial data and apply investment concepts at all three levels.

Each writing cycle begins with CFA LEAD staff members setting the guidelines for the next item writing effort. These guidelines are disseminated to CFA Program item writing teams, who then begin drafting items before the first of a series of team item review meetings. To be included on the CFA Program item bank, an item must relate directly to one or more LOS in the curriculum. Item writers ensure candidates will be able to answer any item solely from curriculum content and practice problems. CFA Program item writers are also encouraged to use assigned curriculum problems for ideas on item structure and content. The CFA Program item writer teams develops more items than needed to enhance the depth of the item banks and needs of multiple uses.

The CFA Program item writers revises examination items continuously during the agile development cycle. Each new version benefits from review by the CFA Program item writing team members, expert and generalist volunteers, and staff reviewers. During the cycle, hundreds of hours of review time contribute to improving the quality of examination items.

CFA Program item writers are also responsible for writing guideline answers, scoring rubrics, and answer justifications, as well as documenting LOS coverage, reading references, and other supporting information.

Once the items are nearly in final form, CFA Institute staff conducts review sessions with Charterholders from around the world. Participants review the items to ensure that the language is clear, simple, unambiguous, and free of cultural bias. Global reviewers also identify any investment practices that may be inconsistent with practices in their regions. This information is used to revise the items before they are placed in the item bank.

Level I Examination

The Level I exam format is entirely multiple-choice. Multiple-choice items on the CFA Program exam have a long history, dating back to 1968 when 25 multiple-choice items first appeared on the Level I exam. By 1986, 50% of the Level I exam was multiple-choice. The first all-multiple-choice Level I exam was administered in 1996. Starting in 2021, CFA Institute reduced the number of items from 240 items to 180, 160 items were scored for each candidate and 20 of the items are unscored but used to investigate item quality before placement into the item bank.

Level I multiple-choice items are crafted with each of the incorrect responses (distracters) carefully constructed to represent common mistakes in either calculation or logic. A Level I exam consists of 180 items to be completed in a five-hour time frame. Sample multiple-choice items are available on the CFA Institute website.

Levels II and III Item Set Questions

Item set questions were introduced in 2000; since 2005, the Level II exam consists entirely of item set questions. Level III consists of constructed response (essay) items (morning session) and item set questions (afternoon session). Item sets are organized in groups of four to six items that are related to a case or vignette that describes investment challenges facing individuals or institutions. Sample item set questions are available on the CFA Institute website.

Level III Constructed Response Questions

The constructed response (essay) portion of the Level III exam (morning session) includes items with varying structures and point values. These items typically have several parts related to a case study that describes one or a series of investment challenges. Each item begins with a command word that corresponds to the command words contained in the curriculum LOS. The command words used on the examinations are also available at www.cfainstitute.org.

Constructed response examination items have changed significantly throughout the CFA Program exam history. In the early years, open-ended items with large point values were common. For instance, the 1965 Level III exam contained the following 25-minute item:

“The value of a common stock or any other security is what you can sell it for.” Analyze the above statement and explain fully how you would arrive at the value of a common stock.

Today’s CFA Program exam items are less open-ended and have smaller point values in order to sample more of the assigned curriculum. Some items are presented with an answer template to assist candidates in following the logic of the application being tested and to guide candidates regarding the appropriate length of answers.

On the early CFA Program exam, candidates commonly had options concerning which items they had to answer. Candidates could select the industry of their choice, the institution of their choice, or even which of two or three items from a longer list they wanted to answer. For example, the 1965 Level III examination gave candidates the choice of answering either a bond or stock valuation item. That same examination gave candidates the choice of one of eight institutions (e.g., investment companies, endowment funds, or pension funds) as the subject of an item and also asked candidates to answer an item on the industry of their choice.

Today’s CFA Program exams cover all of the topics in the CFA Program curriculum. Candidates must answer the entire set of items, each based on specific readings. This policy is consistent with the premises that the CFA Program exam takes a generalist approach to investment analysis and portfolio management and that all successful candidates have mastered the same curriculum. One of the strengths of the CFA Program often cited by employers is that Charterholders are knowledgeable even in investment topics in which they are not practicing.

Candidates today are also given an indication as to how much detail is required to successfully answer an item. For example, items may state, “Discuss three reasons...,” and the candidate will have a clear indication of how much discussion is necessary.

Presently, the candidates’ responses on the CFA Program exam require a high degree of specificity. The current exams differ dramatically from those given in the program’s early history, properly reflecting the evolution of both investment management practice and testing techniques used to evaluate that practice. Constructed response items (and associated guideline answers) that have appeared on recent exams are available on the Candidate Resources section of the CFA Institute website (www.cfainstitute.org).

Note that guideline answers published by CFA Institute reflect most of the answers that received high scores on each item. There may often be more than one appropriate (and full-credit) answer to an item. All possible approaches that received high scores are not necessarily included in a published guideline answer. Candidates are not expected to provide answers as complete and well-written as the published guideline answers to receive full credit.

Examination Construction

Once the CFA Program item writing teams finish writing the CFA Program items, the developed items reside in their respective item banks. Examinations are constructed from the robust item banks using the exam blueprints, test specifications, and psychometric criteria to ensure every constructed exam is faithful to the exam blueprint and psychometric standards. The exams are then published following a secure process developed by CFA Institute and its computer-based testing vendors. Before final publishing,

CFA Institute LEAD staff performs quality-control checks to ensure the quality of the publishing process. The exams are then distributed electronically globally on exam day.

Examination Administration

The CFA exams are administered through a computer-based model. CFA Institute has partnered with computer-based testing vendors around the world to administer the exams with the utmost attention to the candidate experience and exam security. To support and reinforce this model, trained CFA Institute employees travel to select test centers to observe testing operations and provide feedback.

CFA Institute strives to produce a fair and equitable testing environment and to ensure the safety of CFA candidates and testing personnel. To ensure the integrity of the process, strict testing policies are enforced.

To sit for the exam candidates must register with a valid international travel passport. This policy sets forth one global standard, in the form of a single document that is both internationally obtainable and recognizable, that allows CFA Institute to confirm a candidate's identity and to ensure that all candidates receive identical treatment during the exam day admission process.

Candidates are required to use only approved calculator models to ensure no candidates can gain an unfair advantage by using calculators that can store text in memory. Unauthorized personal belongings are not permitted in the testing room. Security and testing policies will continue to evolve to reflect industry best practices. You can review testing policies on the CFA Institute website (www.cfainstitute.org).

Matters involving alleged violations of the CFA Program rules and regulations are investigated by CFA Institute Professional Conduct. Disciplinary sanctions are imposed on candidates who are found to have violated these rules and regulations, such as using an unauthorized calculator or giving or receiving assistance during the examination. If a candidate is found to have violated the rules and regulations, the imposed sanction may range from a private reprimand and voiding of exam results to prohibition from further participation in the CFA Program.

Grading

Immediately upon receipt at CFA Institute, exam records are reconciled with attendance rosters and prepared for the grading and quality-control processes. The first step in the grading process is the computer grading of multiple choice and item set questions. This process encompasses a number of quality controls to ensure clean data results.

Another quality control during this period is the investigation of all comments and complaints related to the examinations. The staff reviews the exam items and answers, curriculum readings, and exam results related to each comment or complaint. Special focus is given to reviews under any of the following circumstances: multiple similar complaints, exam results suggesting more than one correct answer, or exam results that otherwise suggest that an item was confusing or unfair. If, after investigation, an item is determined to be

confusing or unfair, results are adjusted. If multiple answers are determined to be correct, they are credited.

In recent years, more than 600 charterholders from around the world have spent one or two weeks in Charlottesville, grading the constructed response portions of the Level III CFA examination. Starting with the December 2020 administration, CFA Institute moved to virtually grading the constructed response portions over a one-week period with no disruptions to the grading process or reduction in accuracy.

CFA Charterholders' involvement in grading the examinations is one of many checks and balances in the CFA Program designed to ensure each candidate receives fair and consistent evaluation. To ensure each constructed response grader has adequate time to prepare, graders receive their question assignments, appropriate curriculum materials, and draft rubrics and rationales well in advance of the grading session. This process allows graders to suggest changes to the rubrics and rationales before grading begins.

Graders are separated into teams that include graders with varying degrees of grading experience. Each team grades a specific question or question part(s), which brings a high level of specialization to the process. Each team is led by a captain and two assistant captains. These team leaders review suggestions made by the graders before grading. They also review a large sample of actual candidate answers to ensure the rubrics credit all valid responses and award partial credit consistent with the relative importance of the information provided by the candidate. After extensive review and trial application, grading coordinators approve the final rubrics that will be applied to the assigned question. Graders are trained in evaluation policies, procedures, and techniques.

Grading coordinators are CFA Charterholder members with extensive experience in both exam development and grading. They oversee the grading process, ensuring all grading teams treat candidates consistently across questions. Once grading begins, captains and assistant captains spend much of their time reviewing graders' work to ensure points are awarded accurately and consistently across the team.

Quality control is built into all aspects of the grading process. Access to the grading software is secure and closely monitored. Only graders are permitted to view examination responses, and they may grade only their assigned question(s). Coordinators and team captains receive detailed timely statistical reports to ensure consistent and accurate grading. Grading coordinators, team captains, and CFA Institute staff meet daily to ensure consistent application of grading policies.

After all examinations have been fully graded during the early part of the week, approximately the middle 30% of candidates in the score distribution are graded again in their entirety in a second round by a different grader than was used in the first round. The purpose of re-grading is to ensure marginal candidates, those whose papers fall within a large range that encompasses possible minimum passing scores, are afforded every opportunity to pass the examination. Following the re-grading of these exams, a third round of grading occurs to determine the final score for question parts where the scores do not match between the first two rounds of grading.

Minimum Passing Score Standard Setting

Since 1996, CFA Institute has used the modified Angoff standard-setting method to assist the Board of Governors in establishing the minimum passing score (MPS) on each CFA Program exam. The Angoff Method is the best-known and most widely used standard-setting method among professional credentialing programs.

The Angoff Method has been used as a criterion for establishing the MPS for the Level I examination since 1996. CFA Institute retains independent psychometricians to conduct standard-setting workshops for each exam.

Standard setting involves a large and diverse group of CFA Charterholders. The lead psychometrician divides participants into two smaller groups for each level of the examinations. Each participant reviews the entire exam, item by item, and makes an independent judgment on the expected performance of a just-competent candidate on each item.

Participants evaluate the entire exam a second time after reviewing “item impact data”. In the second round, each participant again records his or her judgment regarding the expected performance of a just-qualified candidate on each item. In the third round, participants are informed by the overall actual candidate performance on the exam prior to recording his or her judgment regarding the expected performance of a just-qualified candidate on each item. This way, the participants consider both difficulty of the exam content and actual candidate performance. The workshops result in a report that presents a score range judged as the appropriate competence level in the subject matter from the perspective of demographically representative groups of Charterholders. This report is submitted to the Board of Governors for its consideration in setting the minimum passing score. The size of the group, its diversity, and its reliance on independent judgments contribute to the power of the standard-setting results.

Minimum Passing Score Equating Analyses

Equating allows for the transfer of an approved MPS from standard setting and apply it to future administrations. The results allow direct comparison of two or more different exam forms; treating them as though they came from the same form.

Equating is a stable statistical process to maintain comparable MPS on different exams within or across administrations. It is analogous to converting degrees Celsius with degrees Fahrenheit by translating the temperature from one scale to the other.

If equating is possible, why hold a standard setting workshop? There may be a call to change the MPS when the structure, format, or distribution of content in an examination changes or when a candidate population significantly changes. These types of changes may impact the candidates' results; therefore, a standard setting workshop is needed to determine a new MPS.

In other words, if the exam is revamped, equating is not an option; the MPS needs to be set anew. The 2021 administration is a good example; as exams are administered on the computer-based platform, the MPS needed to be reset.

CFA Institute has been performing equating for years. For the CFA Program, equating has been the method used to ensure fairness across multiple forms within each administration. One form is used for standard setting and then remaining forms have the MPS set using equating at an equivalent difficulty level.

Across administration equating has also been used as a stability check of the MPS set in a particular administration. The MPS can be maintained until there is a significant curriculum or population change, necessitating a new standard setting.

Setting the Minimum Passing Score

Members on the CFA Institute Board of Governors who have no conflicts of interest set the MPS to be applied to each examination. The board convenes approximately six weeks following the exam to determine the Levels I and II MPS and again approximately seven weeks after the Level III exam to determine its MPS. Although pass rates may fluctuate, the board's objective is to require a consistent standard competency level across years.

The board assesses the examinations' difficulty and the candidates' demonstrated competency. Board members consider all available information relevant to these factors. The results of the standard-setting workshops or equating analyses are the most important input. From the board's perspective, standard setting is a systematic process that adheres to sound psychometric principles, providing the board with a valid range within which to establish the MPS and the equating analyses ensure the MPS is consistently applied for administrations not requiring standard setting workshop. The board's report, “Guiding Principles for Setting the CFA Examination Minimum Passing Score,” is available on the CFA Institute website (www.cfainstitute.org).

CFA Institute staff and the board continue to monitor advances in the psychometric field to augment the information currently used to set and maintain the MPS.

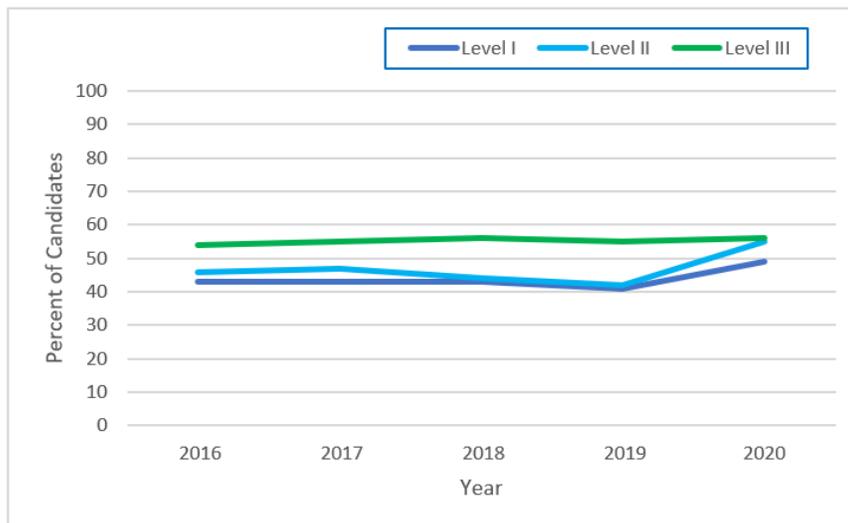
Pass Rates

Following the board's MPS decision, CFA Institute generates results and conducts a variety of quality-control measures before results are released to candidates. This process ensures that the MPS is set or maintained in accordance with best practices in testing and that every candidate's exam is processed with appropriate due diligence.

Pass rates, as shown in Figure 4, are calculated from candidates who actually sat for the examination.

Approximately 25% of enrolled candidates who register do not sit for the examination (i.e., are no-shows) each year.

FIGURE 4
PASS RATES 2016-2020



Falling pass rates reflect the expansion of the candidate pool and related shifts in academic and professional experience, the steady evolution of the CBOK supporting the investment management profession, and candidate preparation practices. Candidates receive examination results approximately two months after the exam. Candidate results are emailed and are available in a secure section of the CFA Institute website. CFA Institute posts scores as “pass” or “fail” and provides candidates with an indication of performance across topic areas or items to help identify strengths and weaknesses. Candidates learn whether they scored less than 50% of the points, between 50% and 70% of the points, or more than 70% of the points by topic.

Beginning with the June 2008 results, CFA Institute provided unsuccessful candidates with additional information to help them decide whether to continue to pursue the CFA designation. The total number of unsuccessful candidates at each level is divided into 10 groups or score bands so that candidates can see how they performed relative to all unsuccessful candidates. This has been cited as an example of credentialing industry best practice.

The highest score bands indicate proximity to the MPS. Not wanting to invite comparisons of performance within or across exam administrations, CFA Institute does not release the MPS or individual scores. The examination’s primary objective, as with most professional credentialing and licensing programs, is to provide candidates the opportunity to demonstrate that they meet the standard established for competency in the profession.

Regulatory, Professional, and Educational Recognition

We hope that you agree the standards and rigor of the CFA Program have been maintained and even enhanced through the years.

The stakes for the Program are higher than ever because the CFA charter has become a de facto condition of employment in many investment management organizations.

Regulatory authorities also recognize the value of the CFA charter. Examples include authorities in Australia, Brazil, Canada, Germany, Hong Kong, the Netherlands, South Africa, the United Kingdom, and the United States. The Securities and Futures Commission of Hong Kong has recognized the passing of Level I of the CFA Program as providing an exemption from several modules of its licensed representative exams. The Financial Conduct Authority in the United Kingdom has recognized Level I of the CFA Program in combination with the Investment Management Certificate (IMC), or Level III with the IMC Unit 1, as satisfying the retail distribution review requirements. All of the state securities commissions in the United States that require an investment adviser licensing examination grant CFA Charterholders a blanket exemption, and the CFA designation is one of only a few designations awarded such status.

In addition to regulatory recognition, educational and professional recognition also enhance the value of the charter. The UK National Academic Recognition Information Centre (UK NARIC) benchmarked the CFA Program and CFA charter as comparable with a QCF Master’s Level 7 qualification within the UK Qualification and Credit Framework (QCF). UK NARIC is the UK national agency responsible for providing information, advice, and expert opinion on vocational, academic, and professional skills and qualifications. Universities and other qualification programs also recognize the CFA Program. For example, successful

CFA Level II candidates applying for the Master in Advanced Finance program at the IE Business School in Spain can waive the requirement to submit GMAT or GRE scores.

The Professional Risk Manager program recognizes the CFA Program and, for Charterholders, it waives the first two exams in its four- exam program. As with regulatory recognition, these educational and professional waivers are a direct member benefit.

Future of the CFA Program

The CFA Institute Board of Governors established a clear guiding principle for governance of the CFA Program on which all decisions will be made: “Never lower standards, either educational or ethical.

Growth for growth’s sake is not the goal.” This commitment to upholding ethics, educational rigor, and professional excellence has been recognized in such publications as The Economist and the Financial Times. CFA Institute staff and CFA Charterholder volunteers involved in the activities described in this article are committed to upholding fair and consistent standards for obtaining the CFA charter.

The CFA Program will continue to evolve to meet the changing needs of the capital markets. We are proud of the CFA Program and its history.

Much of the success of the CFA Program reflects the participation of many Charterholders who, along with the CFA Institute staff, specify the CBOK, develop the curriculum and examinations, grade the examinations, and recommend the passing standards for the examinations to the Board of Governors. CFA Institute welcomes all inquiries and suggestions regarding the CFA Program.