READING

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An Introduction to the Global Investment Performance Standards (GIPS®)

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LEARNING OUTCOMES

Mastery	*The candidate should be able to:*
☐	**a.** describe why the GIPS standards were created, what parties the GIPS standards apply to, and who is benefitted by the GIPS standards;
☐	**b.** describe the required fundamentals of firm compliance;
☐	**c.** explain requirements and recommendations of the GIPS standards with respect to the definition of the investment firm;
☐	**d.** describe the requirements of the GIPS standards with respect to firm input data;
☐	**e.** compare fair value and market value of assets and show how to implement the valuation recommendations of the GIPS standards, including the valuation hierarchy;
☐	**f.** explain the requirements of the GIPS standards with respect to the treatment of external cash flows, cash and cash equivalents, and expenses and fees;
☐	**g.** explain the requirements of the GIPS standards with respect to return calculation methodologies;
☐	**h.** describe the purpose of composites in performance reporting;
☐	**i.** explain the role of investment mandates, objectives, or strategies in the construction of composites;
☐	**j.** explain the meaning of "discretionary" in the context of composite construction and, given a description of the relevant facts, determine whether a portfolio is likely to be considered discretionary;
☐	**k.** explain the requirements of the GIPS standards with respect to composite construction, including switching portfolios among composites, the timing of the inclusion of new portfolios in composites, and the timing of the exclusion of terminated portfolios from composites;

(continued)

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LEARNING OUTCOMES

Mastery	The candidate should be able to:
☐	**l.** explain the requirements of the GIPS standards with respect to composite return calculations, including methods for asset-weighting portfolio returns;
☐	**m.** calculate composite returns in accordance with the GIPS standards;
☐	**n.** describe the required elements of a GIPS Composite Report;
☐	**o.** describe key differences between the requirements for firm compliance and asset owner compliance.

1 INTRODUCTION

When attempting to achieve any goal, we need to know how to evaluate success or failure. How do we know if what we are doing is working as intended? How do we measure and evaluate performance? Standards are important in every industry, and the investment management profession is no exception. Measuring performance without standardized metrics may lead to inaccurate conclusions, which is why a set of commonly accepted, industry-wide standards is needed. For investment performance measurement, that industry standard is the Global Investment Performance Standards (the "GIPS® standards").

The GIPS standards are ethical standards for calculating and presenting investment performance that represent industry best practices. Based on the principles of fair representation and full disclosure of investment performance results, the GIPS standards are a truly global industry standard, having been endorsed and adopted by organizations around the world. The GIPS standards are not written or sponsored by any regulatory body; they are created by the industry as a form of self-regulation. CFA Institute, the global association of investment professionals, administers and maintains the GIPS standards in collaboration with a diverse group of volunteers from across the investment community. CFA Institute also partners with GIPS Standards Sponsors, organizations in various countries and regions that contribute to the development and promotion of the GIPS standards. Additionally, any proposed amendments to the GIPS standards are first released to the public as exposure drafts, and any interested party is invited to provide feedback, which allows a broad range of perspectives to be incorporated into the ongoing development process.

The GIPS standards are well aligned with the overall mission of CFA Institute, which is to lead the investment profession globally by promoting the highest standard of ethics, education, and professional excellence for the ultimate benefit of society. Concurrently, the mission of the GIPS standards is to promote ethics and integrity and instill trust through the use of the GIPS standards by achieving universal demand for compliance by asset owners, adoption by asset managers, and support from regulators for the ultimate benefit of the global investment community.

Compliance with the GIPS standards requires investment management firms and asset owners to establish consistent processes related to the calculation of performance results. However, the GIPS standards are not limited to a list of prescribed calculation methodologies. The true essence and value of adhering to the GIPS standards relates to the manner in which performance results are communicated to the investing public. Firms and asset owners that claim compliance with the GIPS standards are required to create standardized presentation materials that offer a complete and transparent

depiction of the track record of a particular investment strategy and to establish processes for consistently delivering those materials to interested parties, such as prospective clients and prospective investors.

This reading is designed as an overview of the core principles of the 2020 edition of the GIPS standards, particularly as they relate to firms that claim compliance with the GIPS standards as described in the GIPS Standards for Firms. The reading does not cover all aspects of the GIPS standards but instead focuses on the areas that generally apply to the majority of firms and are most likely to be encountered by the broadest range of candidates. In particular, a comprehensive review of the GIPS Standards for Asset Owners and the GIPS Standards for Verifiers is beyond the scope of this reading. Candidates are responsible to read and familiarize themselves with the GIPS Standards for Firms in their entirety. The full text of the 2020 GIPS Standards for Firms can be found at www.cfainstitute.org/-/media/documents/code/gips/2020-gips-standards-firms.ashx.

THE WHY, WHAT, AND WHO OF THE GIPS STANDARDS

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The GIPS standards are recognized around the world as the most widely accepted standard for calculating and presenting investment performance results. This was not always the case, though. Prior to the introduction of the GIPS standards, investment firms typically had a great deal of latitude in how they chose to present investment performance. Starting in the 1980s, countries separately began to establish their own standards for performance calculation and reporting to increase consistency and accuracy of performance information. Two examples were the AIMR Performance Presentation Standards (AIMR-PPS®) in the United States and Canada and the UK Investment Performance Standard (UKIPS) in the United Kingdom. In 1995, the initiative to consolidate the various country-specific standards began, culminating in the adoption of the first edition of the GIPS standards in 1999. For a time, the various regional performance presentation standards were endorsed as "country versions" of the GIPS standards, but ultimately all country versions were retired, leaving behind a single version of the GIPS standards that transcended geography.

The GIPS standards have continued to evolve over time, including a major revision in 2010 that introduced several new requirements, such as the use of fair valuation procedures for valuing investments. In June 2019, the 2020 edition of the GIPS standards was adopted. The motivating factors behind this most recent revision were to make the GIPS standards more relevant to different types of investment firms, including managers of pooled funds and alternative investment strategies, and to attempt to ease the burden of compliance with the GIPS standards without reducing the relevance of or diluting the value of complying. The 2020 edition of the GIPS standards also formally incorporated guidance specific to asset owners.

2.1 Why Were the GIPS Standards Created?

The GIPS standards grew from the need for investors to be able to obtain reliable performance data from their investment managers that could be easily compared with results produced by competing firms. Regulation with respect to advertising investment performance typically focuses on principles such as ensuring that the information presented is fair, honest, and not misleading; it does not generally prescribe specific

requirements for calculating and presenting performance information. In the past, the lack of specific regulatory requirements or industry standards led to abuses in the reporting of investment performance results, including the following:

- misrepresenting theoretical, simulated, or hypothetical performance results as performance achieved through the management of actual assets;
- selectively applying different calculation methodologies in order to present performance results that appear more favorable;
- presenting performance for a single portfolio that outperformed all others managed to a particular strategy as "representative" of the results achieved by the strategy (cherry-picking portfolios);
- presenting performance for select time periods when the strategy achieved its best results (cherry-picking time periods);
- presenting composite results that excluded terminated portfolios (survivorship bias);
- presenting performance results compared to an inappropriate benchmark or no benchmark at all; or
- presenting performance information without adequate disclosure.

These abuses gave rise to the GIPS standards. Rather than relying solely on regulation, the profession moved to promote self-regulation and developed a practitioner-driven set of voluntary, ethical principles that would produce a standardized, industry-wide approach to calculating and reporting investment performance results.

2.2 Who Do the GIPS Standards Apply To?

The GIPS standards were originally created for investment firms managing discretionary client assets, with a focus on the presentation of historical performance to prospective clients. Over time, the GIPS standards have expanded to include guidance targeted toward asset owners that desire to claim compliance. Additionally, another group plays an important role in the GIPS compliance process, but its members do not claim compliance themselves—verifiers.

The 2020 edition of the GIPS standards is divided into three chapters, with a chapter dedicated to each target audience:

- GIPS Standards for Firms
- GIPS Standards for Asset Owners
- GIPS Standards for Verifiers

The majority of this reading focuses on the GIPS Standards for Firms, but candidates should be familiar with the other chapters and how the target audiences differ.

In the GIPS standards, a **firm** is an entity that has been defined for compliance with the GIPS standards. The most common example of such an entity is an investment manager. An **investment manager** is an organization that manages assets on behalf of clients, which may be individuals, organizations, or pooled funds. A single investment management organization may have many constituent *firms*, or multiple investment managers may be combined into one firm depending on how the organization is held out to the investing public. We will discuss the concept of defining the firm in detail later in this reading.

An **asset owner** is an entity that manages investments, directly and/or through the use of external managers, on behalf of participants, beneficiaries, or the organization itself. Asset owners include, but are not limited to, public and private pension funds, endowments, foundations, family offices, provident funds, insurers and reinsurers, sovereign wealth funds, and fiduciaries.

A key differentiator between asset owners and investment managers is that asset owners typically do not compete for new business. However, that is not always the case. In certain instances, an asset owner may have the ability to market its services to outside investors and function in a manner similar to an investment management firm. An example is a family office that was initially established to manage and oversee the assets for a single family but later expands its business model in an effort to attract assets from groups or individuals outside of the family. Asset owners that do not market their services may follow the GIPS Standards for Asset Owners, but asset owners that market their services must follow the GIPS Standards for Firms when competing for business.

It is important to note that the terms "investment manager" and "asset owner" in the context of the GIPS standards apply to the organizations that claim compliance, not to individuals. Only firms or asset owners that manage actual assets may claim compliance with the GIPS standards.

Performance or accounting software vendors—as well as the programs that they create and disseminate—cannot claim compliance with the GIPS standards. Software can assist an organization in achieving compliance with the GIPS standards by facilitating calculations that adhere to the requirements of the GIPS standards, but a software vendor cannot represent that its program is "GIPS compliant" or that the program, by itself, can make a firm or asset owner compliant with the GIPS standards.

Additionally, investment consultants typically cannot claim compliance with the GIPS standards, except in instances where they have full discretion over the selection of investment managers. The latter is often the case with Outsourced Chief Investment Officer (OCIO) services offered by some consultants. The act of selecting an investment management firm to which a portion or all of a portfolio's assets will be delegated is a form of investment management, and the ability to exercise discretion in this manner can establish the framework for an OCIO or other firms offering similar consulting services to claim compliance with the GIPS standards.

We now turn our attention to verifiers and their role in the process. A **verifier** is a third party, independent from the firm or asset owner that claims compliance with the GIPS standards, that is hired to conduct a verification. **Verification** is the process by which an independent verifier conducts testing of a firm or asset owner that claims compliance with the GIPS standards, in accordance with the required verification procedures of the GIPS standards. Verification provides assurance on whether the firm's or asset owner's policies and procedures related to composite, pooled fund, and/or total fund maintenance, as well as the calculation, presentation, and distribution of performance, have been designed in compliance with the GIPS standards and have been implemented on a firm-wide or asset owner–wide basis. Verification offers additional credibility to a firm or asset owner's claim of compliance with the GIPS standards. Verification is not required in order to claim compliance with the GIPS standards, but it is considered best practice and is strongly recommended.

A key aspect of verification is that the verifier must be independent from the firm or asset owner being verified. To be independent, there must be no unresolved independence issues between the verifier and the firm or asset owner. A crucial element is that a verifier must not test its own work—in other words, the verifier cannot lead the project of bringing the organization into compliance or make decisions regarding how the GIPS standards will be applied. Otherwise, the verifier would potentially be conflicted and unable to perform its service in an unbiased manner.

Like the claim of GIPS compliance itself, verification is conducted on the firm or asset owner as a whole and does not apply to individual composites or pooled funds. However, firms or asset owners may choose to have a verifier also conduct focused testing of a specific composite or pooled fund to provide additional assurance that the composite or pooled fund has been prepared and presented in compliance with the

GIPS standards. This process is referred to in the GIPS standards as a **performance examination**. A performance examination may only be performed concurrent with or subsequent to the completion of a verification.

The *GIPS Standards for Verifiers* explain the procedures a verifier must follow when conducting a verification or a performance examination.

2.3 Who Benefits from the GIPS Standards?

The GIPS standards offer unique benefits to the investment managers and asset owners that claim compliance, but they also benefit the investing public, intermediaries, regulators, and the investment management industry as a whole.

Investment Managers In many markets, the ability to claim compliance with the GIPS standards is vital for investment management firms to gain and retain business, particularly institutional clients. Manager searches often inquire as to whether the firm complies with the GIPS standards as well as if the firm has been verified. If the firm cannot respond affirmatively to these questions, it risks being excluded from the search.

The GIPS standards also offer benefits to firms that seek to compete for new business and to market their investment management services *globally*. The standardized reporting requirements of the GIPS standards allow firms to present consistent performance information comparable to competing firms that also claim compliance, regardless of where they do business, helping to remove international barriers to entry. By complying with the GIPS standards, firms in countries with minimal or no local standards or regulations related to investment performance calculation and presentation can better compete for business with firms from more-developed countries.

There are also internal benefits for firms that comply with the GIPS standards that can help to strengthen core business functions. For example, the creation of meaningful and accurately maintained composites can improve the firm's ability to monitor adherence to client guidelines, identify deviations from the intended strategy, and identify trading errors or other abnormalities. In addition, enhancements to systems and processes related to performance measurement, which are often necessitated in order to meet all of the requirements of the GIPS standards, may have the indirect benefit of offering more-robust statistical reporting and analytical tools that portfolio managers can use to better assess their strategies' success.

Asset Owners Because asset owners typically do not market their services or compete for business, the benefits of complying with the GIPS standards for asset owners differ from the benefits to investment management firms. Asset owners do not produce marketing materials that are presented to prospective clients, but they do report performance to their stakeholders, including their oversight bodies and beneficiaries. Adherence to the GIPS standards helps assure stakeholders that the asset owner's investment performance is completely and fairly presented.

Asset owners also benefit when their underlying managers comply with the GIPS standards, as it offers them greater transparency and more comparable information when making manager selection and retention decisions. Likewise, when the asset owner itself complies with the GIPS standards, it demonstrates a commitment to adhere to the same high standards expected of its managers.

Investing Public The investing public benefits from the GIPS standards as well. The standardized and fully disclosed performance information required by the GIPS standards makes it easier to compare investment results across strategies and other firms that claim compliance. Reliable, consistently produced historical performance reporting is essential for investors looking to make sound manager or fund selection decisions.

When reviewing a performance track record provided by a firm that claims compliance with the GIPS standards, a prospective client is assured that the information is both complete and fairly presented.

Complying with the GIPS standards also demonstrates a commitment by the firm to follow best practices and ethical standards. As a result, a claim of compliance can give the investing public greater confidence that the manager will act in a trustworthy, ethical, and professional manner.

Intermediaries Intermediaries, such as investment consultants, also benefit from the GIPS standards. When receiving performance information that adheres to the calculation requirements of the GIPS standards, a consultant can be assured of the quality and the consistency of the data underlying the information. Because the information provided is standardized, it can also be processed more quickly and can be compared more efficiently with data from other firms that claim compliance. In some cases, investment consultants will exclude managers from searches if they do not claim compliance or at least require them to provide information of similar substance and quality in order to be considered.

Regulators Complying with the GIPS standards is voluntary—firms and asset owners are not typically required by legal or regulatory authorities to comply with the GIPS standards. However, adherence to industry accepted standards can increase a regulator's comfort level concerning the regulated entity and its willingness to follow best practices. A claim of GIPS compliance can help assure a regulator of the firm's desire to calculate and present performance information in an ethical and transparent manner. Regulators may also look to the GIPS standards or other voluntary standards to inform rulemaking for their market.

Regulators typically are not accountable for policing or conducting comprehensive assessments of firms' claims of compliance with the GIPS standards. However, regulators may seek to validate the accuracy of a firm's claim under their general mandate of ensuring that advertisements are not false or misleading. As such, if a firm is found to have made a false claim of compliance with the GIPS standards, it may be subject to enforcement action.

The Investment Management Industry The continued success and growth of the investment management industry depends on investors' confidence in the managers that they work with. The GIPS standards can help to maintain that confidence by assuring clients and investors of their manager's dedication to following best practices in the area of investment performance reporting. Additionally, industry accepted standards and self-regulation create a level of standardization around practices that have the potential to vary considerably across firms and regions, helping to level the playing field and facilitate fair competition on a global level.

EXAMPLE 1

Scope and Purpose of the GIPS Standards

1 Which of the following entities *cannot* claim compliance with the GIPS standards?

- **A** Investment management firms
- **B** Software vendors
- **C** Private pension funds

2 Which of the following is an abusive practice that the GIPS standards were designed to avoid?

- **A** Presenting performance results that include terminated portfolios

B Comparing performance results with an appropriate benchmark

C Presenting performance results for select time periods

3 The process of testing a firm or asset owner that claims compliance with the GIPS standards is referred to as a:

A verification.

B validation.

C certification.

4 Firms that claim compliance with the GIPS standards are required to receive a verification:

A before the firm can initially claim compliance.

B after the firm has claimed compliance for 12 months.

C never; verification is not required.

5 Which of the following is not a commonly perceived benefit of the GIPS standards?

A Comparability of results across managers that claim compliance

B Adherence to regulatory requirements

C Increased confidence by investors and beneficiaries

Solution to 1:

B is correct. Only investment management firms and asset owners (including pension funds, whether public or private) that manage actual assets may claim compliance with the GIPS standards. Software vendors and other intermediaries cannot claim compliance.

Solution to 2:

C is correct. The GIPS standards require performance to be presented for consistent, standardized time periods.

Solution to 3:

A is correct. Verification is the process of testing a firm or asset owner that claims compliance with the GIPS standards, in accordance with the required verification procedures of the GIPS standards.

Solution to 4:

C is correct. Firms are not required to be verified in order to claim compliance with the GIPS standards, although verification is recommended and viewed as best practice.

Solution to 5:

B is correct. Compliance with the GIPS standards is not typically required by regulators, nor are the GIPS standards intended to cover all regulatory requirements that may apply to a firm or asset owner.

3 FUNDAMENTALS OF FIRM COMPLIANCE

The remainder of this reading focuses primarily on firms and their obligations when they claim compliance with the GIPS standards. The key differences between the GIPS Standards for Firms and the GIPS Standards for Asset Owners are addressed briefly at the end of the reading.

The principles of the GIPS standards are separated into individually itemized points, referred to as **provisions**. Each provision addresses a **requirement** (a task or action that must be followed or performed, identified in the GIPS standards by the word "must") or a **recommendation** (a suggested task or action that should be followed or performed, identified in the GIPS standards by the word "should"). To claim compliance, firms must, at minimum, adhere to all applicable requirements included in the GIPS Standards for Firms. Firms are also encouraged to adhere to the recommendations that apply to them, with the understanding that certain provisions of the GIPS standards will not apply to all firms.

The required fundamentals of compliance can be broadly characterized as follows:

- properly defining the firm;
- documenting policies and procedures for establishing and maintaining compliance;
- adhering to applicable laws and regulations;
- avoiding false or misleading performance-related information;
- creating and maintaining composites;
- consistently using appropriate return measures;
- determining appropriate benchmarks;
- creating and distributing GIPS Reports;
- maintaining and making available lists of the firm's composites and/or pooled funds, as applicable;
- maintaining data and information necessary to support all elements of the GIPS Reports;
- when applicable, presenting a performance track record produced by a different firm (i.e., performance portability);
- correcting errors that are identified in a GIPS Report; and
- notifying CFA Institute when claiming compliance.

These items are discussed in the following subsections, but candidates are also responsible for reading the applicable sections of the GIPS Standards for Firms for more detail on the fundamentals of compliance.

3.1 Definition of the Firm

Compliance with the GIPS standards can be achieved only on a firm-wide basis. Therefore, the definition of the firm is the foundation for firm-wide compliance with the GIPS standards. For some organizations, defining the firm may be relatively straightforward. For others, particularly those with multiple offices or business lines, the process can be very complex. The definition of the firm determines the population of portfolios that must be included in total firm assets and considered for inclusion in composites, concepts which will be addressed in detail later in this reading.

3.1.1 *Requirements*

All assets that are included within the scope of the firm definition must adhere to the GIPS standards. A firm cannot claim to be in compliance with the GIPS standards with regard only to certain asset classes, strategies, products, or composites. The firm is responsible for ensuring that the firm definition is appropriate, rational, and fair, and also that it reflects the manner in which the firm is held out to the investing public.

The GIPS standards require that a firm be defined as a(n):

- investment firm,

- subsidiary, or
- division held out to the public as a distinct business entity.

The option to define a "distinct business entity" as a firm can be confusing and warrants additional clarification. A unit, division, department, or office may be considered a **distinct business entity** when it:

- is organizationally and functionally segregated from other units, divisions, departments, or offices;
- retains discretion over the assets it manages; and
- has autonomy over the investment decision-making process.

Possible criteria for determining whether a division qualifies as a distinct business entity include:

- being a legal entity;
- having a distinct market or client type (e.g., institutional, retail, or private client); or
- using a separate and distinct investment process.

If a division or business unit does not satisfy the criteria necessary to qualify as a distinct business entity, it is inappropriate to represent that division or business unit as a firm that claims compliance with the GIPS standards.

3.1.2 *Recommendations*

A key factor that should be considered when defining the firm is how the organization is held out to the investing public. Defining the firm in a narrow manner that is not consistent with how the organization is typically perceived by the public can lead to confusion and potentially bring into question the validity of the firm's claim of compliance.

Although the requirements related to the definition of the firm establish options whereby an organization could be separated into various divisions or business units that are narrowly defined as individual firms for GIPS compliance purposes, this approach should not be taken simply to exclude certain assets or strategies for which applying the GIPS standards may be more difficult or have less perceived value. To avoid the tendency for firms to be defined more narrowly than would be appropriate, the GIPS standards include a recommendation that the *broadest, most meaningful definition of the firm* should be adopted. The GIPS standards also recommend that the scope of the firm definition should include all offices operating under the same brand name, regardless of geographic distinctions. This means that if an organization has multiple divisions or business units that are held out separately to the investing public but that all operate under the same name and use the same branding, the organization should be defined as one collective firm unless the divisions have separate and distinct management processes, operate independently, or serve distinctly different client types.

Another factor to consider when defining the firm is whether the firm jointly markets with other firms or organizations (e.g., parent companies, subsidiaries, or other business partners). When doing so, the firm claiming compliance with the GIPS standards must ensure that it is clearly defined and separate from any other organizations that are mentioned in the firm's marketing materials. This distinction is necessary in order to avoid confusion as to which firm is claiming compliance or the scope of the firm's claim, as well as to prevent a non-compliant organization from receiving any indirect benefit from another firm's claim of compliance.

3.1.3 *Sample Firm Definitions*

Appropriate Firm Definitions

1 A regional asset manager with a single office that has no parent company, subsidiaries, or affiliates and is registered as an investment adviser with a single regulatory authority that defines the firm to include all assets managed by the registered entity.
   - *Because the entire organization is included within the firm definition, the firm has established the broadest, most meaningful definition possible of the firm.*

2 A large investment management company with offices in multiple countries that defines the firm to include all assets, products, and strategies for which the company has management authority.
   - *Because the entire organization—including all offices and all of its managed assets—is included within the firm definition, the firm has established the broadest, most meaningful definition of the firm.*

3 A global investment management company that consists of multiple legal entities that are registered with various regulatory bodies based on the jurisdiction in which they operate that defines each legal entity as a separate firm.
   - *Being a separate legal entity is one of the possible criteria for identifying a distinct business entity that can be defined as a firm, even if the legal entity is affiliated with a larger parent company.*

4 A large investment management company with multiple offices and divisions, which are each held out to the public as separate units with their own unique names, branding, and investment processes, that defines each office and division as a separate firm.
   - *Using a separate and distinct investment process is one of the possible criteria for identifying a distinct business entity that can be defined as a firm. Using unique branding and naming conventions to distinguish the individual divisions also supports the decision to define them as separate firms.*

Inappropriate Firm Definitions

1 A regional asset manager with a single office that holds itself out to the investing public as a single business entity and manages portfolios composed of various asset types. The manager actively markets only its equity products and defines the firm for GIPS compliance purposes to include only portfolios that invest exclusively in equities.
   - *The firm cannot be defined to only include a particular asset class unless the assets are managed within a division or business unit that employs a distinct investment process and is held out to the public as a distinct business entity.*

2 A large investment management company with multiple offices and divisions, all of which operate under the same brand name and employ the same investment process, that defines each office and division as a separate firm.
   - *The firm definition should include all offices operating under the same brand name that use a similar investment process. If an organization has multiple offices, they should not be considered separate firms unless they serve a distinct market or client type, use a separate and distinct investment process, or are established as separate legal entities.*

3 An investment manager that has an equity team and a fixed-income team creates an "equity division" solely for the purpose of defining the division as a separate firm that could claim compliance with the GIPS standards. The division is not referenced on the organization's website or in any marketing or sales materials, other than in GIPS Reports.
   - *The division is not held out to the investing public as a distinct business unit and, therefore, is not appropriate to classify as a firm. In order for the division to be a proper firm, the investment manager would need to assimilate the division into its marketing activities and present the division as a distinct, functional business unit within the overall organization.*

4 A multinational investment manager defines the firm to include only its office located in Japan, although the Japan office uses the same investment process as the organization's offices in the United States and the United Kingdom; in addition, all of the offices operate under the same brand name.
   - *The firm definition should include all offices operating under the same brand name—regardless of geographical location. It would not be appropriate to segregate the firm by office location unless the various locations used different investment management processes or exclusively serviced the market in which they operate. Whether each office is established as a separate legal entity may also be considered.*

EXAMPLE 2

Defining the Firm

1 When defining the firm, the GIPS standards recommend that firms should:
   - **A** adopt the narrowest, most relevant definition of the firm.
   - **B** adopt the broadest, most meaningful definition of the firm.
   - **C** exclude offices operating under different brand names.

2 Joint marketing between firms that claim compliance with the GIPS standards and firms that do not is:
   - **A** permitted, if the firms are affiliated entities.
   - **B** permitted, if the firms are clearly defined and it is clear which firm is claiming compliance.
   - **C** not permitted.

3 Which of the following could be defined as a firm for GIPS compliance purposes?

   I. An investment advisory firm registered with a regulatory authority

   II. A subsidiary of a large investment manager

   III. A division of an investment management firm that employs a distinct investment process
   - **A** I only
   - **B** I and II
   - **C** All three

Solution to 1:

B is correct. Firms are encouraged to adopt the broadest, most meaningful definition possible of the firm.

Solution to 2:

B is correct. Firms that claim compliance with the GIPS standards that jointly market with non-compliant firms must ensure that the compliant firm is clearly defined and separate from the non-compliant firm and that it is clear which firm is claiming compliance, regardless of whether the entities are affiliated.

Solution to 3:

C is correct. Any of the three could potentially be defined as a firm.

3.2 Firm-Wide Compliance

Achieving and maintaining compliance with the GIPS standards is a firm-wide initiative. To claim compliance, a firm must meet all applicable requirements of the GIPS standards and is also encouraged to follow any applicable recommendations. In addition to following the provisions of the GIPS standards, claiming compliance with the GIPS standards requires adhering to any Guidance Statements, interpretations, and Questions & Answers (Q&As) published by CFA Institute and the GIPS standards governing bodies. Firms that claim compliance with the GIPS standards must be aware of these additional resources and consider that they may include applicable guidance that is not addressed directly in the GIPS Standards for Firms.

Before making a claim of compliance with the GIPS standards, a firm must satisfy the applicable requirements of the GIPS standards for a minimum of five years, or since the inception of the firm if the firm has been in existence for less than five years. However, there is no minimum time period that a firm must be in existence prior to initially claiming compliance with the GIPS standards (e.g., if a firm has been in existence for one month and has adhered to all requirements of the GIPS standards since the firm's inception, the firm may claim compliance).

Because compliance with the GIPS standards is a firm-wide concept, individual portfolios, pooled funds, or composites cannot, by themselves, be represented as complying with the GIPS standards. Only the firm that has investment management authority over the underlying portfolios has the ability to claim compliance. As such, statements suggesting that any individual portfolios, pooled funds, or composites "are GIPS compliant" are inappropriate.

Compliance with the GIPS standards is "all or nothing"—failing to meet even one requirement of the GIPS standards precludes a firm from claiming compliance, because partial claims of compliance are not permitted. If it does not meet all of the applicable requirements of the GIPS standards, the firm must not represent or state that it is "in compliance with the GIPS standards except for…" or make any other statements that may indicate compliance or partial compliance with the GIPS standards.

It also must be emphasized that the GIPS standards are about more than calculation methodologies. Even though performance may be calculated in a manner consistent with the requirements of the GIPS standards, that fact alone does not necessarily mean that firm-wide compliance has been achieved. A firm must satisfy all requirements of the GIPS standards in order to claim compliance, not just those provisions related to calculating performance. Therefore, statements referring to calculation methodologies as being "in accordance," "in compliance," or "consistent" with the GIPS standards are prohibited.

Notably, GIPS® is a registered trademark owned by CFA Institute. Improper use of the GIPS trademark is explicitly prohibited, and CFA Institute reserves the right to take action against any organization that misuses the trademark, including false claims of compliance with the GIPS standards.

3.3 Policies and Procedures

A key component of any GIPS compliance program is documenting and maintaining comprehensive policies and procedures that are applied consistently. A firm's policies and procedures must address how the firm has adhered to each of the requirements of the GIPS standards, as well as any recommendations it has chosen to adopt. To maintain compliance on an ongoing basis, the firm's policies and procedures must also outline a process for monitoring and identifying changes and additions to Guidance Statements, interpretations, Q&As, and any other guidance published by CFA Institute and the GIPS standards governing bodies.

Periodically reviewing and updating the policies and procedures can help ensure that the firm's GIPS compliance program is appropriately maintained over time. Robust policies and procedures can serve not only as a roadmap for maintaining compliance but also as a valuable training tool for new employees or team members. With this idea in mind, a firm's policies and procedures should be as comprehensive and detailed as possible.

3.4 Adherence to Laws and Regulations

The GIPS standards are a global set of standards, but laws and regulation vary around the world, so it can be expected that the GIPS standards do not perfectly align with laws and regulations in every jurisdiction. Therefore, in addition to meeting the requirements of the GIPS standards, firms that claim compliance are required to adhere to any laws or regulations that they are subject to regarding the calculation and presentation of performance. To maintain compliance with this requirement on an ongoing basis, a firm's policies and procedures must address how the firm monitors and identifies changes and additions to such laws and regulations. If laws or regulations applicable to a firm were to conflict with the GIPS standards, the firm would be required to comply with the laws or regulations and disclose the manner in which the laws or regulations conflict with the GIPS standards.

3.5 False or Misleading Information

Presenting performance information that is known to be inaccurate or is likely to mislead the users of the information is contrary to the fundamental spirit of the GIPS standards and the underlying principles of fair representation and full disclosure. Therefore, a firm that claims compliance with the GIPS standards is prohibited from presenting *any* information that is false or misleading, regardless of whether the materials that include the information make a reference to the GIPS standards. Applying this requirement to all of a firm's performance presentation materials exemplifies the high ethical standard expected of a firm that claims compliance with the GIPS standards.

Examples of false or misleading information include the following:

- Representing theoretical performance results as actual performance results. **Theoretical performance** is performance information that is not derived from the investment of actual assets. Theoretical performance may be described as model, backtested, simulated, or hypothetical performance.
- Comparing performance results with an inappropriate benchmark. For example, comparing an equity strategy with a fixed-income benchmark.
- Selective presentation of performance results only for periods when the strategy outperformed its benchmark (i.e., cherry-picking time periods).

The requirement to not present false or misleading information does not preclude a firm from providing information that is specifically requested by a prospective client or prospective investor, as long the information is distributed only to the party that makes the specific request.

3.6 Composites

One of the foundational concepts of GIPS compliance is the creation of composites. A **composite** is an aggregation of one or more portfolios that are managed according to a similar investment mandate, objective, or strategy. Within the GIPS standards, a **portfolio** is considered any individually managed group of investments. Portfolios are then separated into two main types:

- A **segregated account** is a portfolio owned by a single client. Segregated accounts include single-investor fund structures that are not available to multiple investors (i.e., "funds of one").
- A **pooled fund** is a portfolio whose ownership interests may be held by more than one investor, such as a mutual fund or a collective investment trust. Pooled funds are then further delineated into *broad distribution* and *limited distribution* funds.

A composite combines the performance of all the portfolios that are allocated to it and presents the average results of the group of portfolios rather than results from any individual portfolio. Under the GIPS standards, all actual, fee-paying, discretionary segregated accounts must be included in at least one composite. Additionally, pooled funds must be included in any composite for which the pooled fund meets the composite definition.

Creating meaningful composites is essential to meeting the GIPS standards' objectives of fair representation, consistency, and comparability of performance results. Composite construction and reporting will be addressed in detail later in this reading.

3.7 Return Measures

A **time-weighted return (TWR)** is a method of calculating period-by-period returns that reflects the change in value and attempts to negate or neutralize the impact of external cash flows. The name is derived from the concept that each time period is given equal weight regardless of the amount invested.

A **money-weighted return (MWR)** is a method of calculating the return for a period that reflects the change in value as well as the timing and size of external cash flows. Simply put, an MWR reflects how much money was earned during the period.

The GIPS standards generally require firms to present a TWR. However, when certain criteria are met (which will be outlined later this reading), a firm may choose to present an MWR instead. Once a return methodology has been selected for a particular composite or pooled fund, the firm must consistently present the selected return measure for that composite or pooled fund.

3.8 Benchmarks

When presenting composite or pooled fund information, the GIPS standards require the results to be accompanied by an appropriate benchmark, unless an appropriate benchmark does not exist. The GIPS standards define a **benchmark** as a point of reference against which a composite's or pooled fund's returns or risk are compared. The benchmark selected for a composite or pooled fund must reflect the investment mandate, objective, or strategy of the respective composite or pooled fund. An appropriate benchmark places the performance results of a composite or pooled fund in

the proper context to evaluate how well the portfolio met its investment objectives during the time period presented. Types of benchmarks include market indices, target returns, or peer group universes. Not all benchmarks are of the same quality or would be acceptable for use in all situations.

Because the GIPS standards require composite and pooled fund performance results to be **total return** (including realized and unrealized gains and losses plus income), benchmark results must be total return as well. Therefore, the use of price-only benchmarks that do not recognize income is prohibited.

3.9 GIPS Reports

The primary instrument through which GIPS-compliant information is communicated to prospective clients and prospective investors is referred to in the GIPS standards as a **GIPS Report**. The GIPS standards delineate three separate types of GIPS Reports:

- A **GIPS Composite Report** is a presentation for a *composite* that contains all the related information required by the GIPS standards.
- A **GIPS Pooled Fund Report** is a presentation for a *pooled fund* that contains all the related information required by the GIPS standards.
- A **GIPS Asset Owner Report** is an asset owner's presentation for a *total fund* or *composite* that contains all the related information required by the GIPS standards.

In addition to the required information, a GIPS Report may also include recommended information or supplemental information, as well as other information that the firm believes would be of value to users of the report.

The GIPS standards also outline specific requirements regarding the distribution of GIPS Reports. In particular, firms must make every reasonable effort to provide a GIPS Composite Report to all prospective clients when they initially become prospective clients. The GIPS standards define a **prospective client** as any person or entity that has expressed interest in one of the firm's composite strategies and qualifies to invest in the composite. Current clients may also qualify as prospective clients for any strategy that differs from their current investment strategy. Investment consultants and other third parties are considered to be and must be treated in the same manner as prospective clients if they represent individuals or entities that qualify as prospective clients. A firm is not allowed to selectively provide GIPS Composite Reports to certain prospective clients and not to others, or to provide them only when requested. Firms must design a consistent process for facilitating the delivery of GIPS Composite Reports to all prospective clients regardless of the situation.

The GIPS standards also require distribution of GIPS Reports to prospective investors for certain pooled funds. A **prospective investor** is defined as any person or entity that has expressed interest in one of the firm's pooled funds and qualifies to invest in the pooled fund. Current pooled fund investors may also qualify as prospective investors for any pooled fund other than the pooled fund in which they are currently invested. Similar to how investment consultants that represent prospective clients must be treated as prospective clients, investment consultants and other third parties that represent individuals or entities that qualify as prospective investors must be treated as prospective investors.

The requirement to deliver GIPS Reports to prospective investors is confined to prospective investors in *limited distribution pooled funds*. Firms are obligated to make every reasonable effort to provide GIPS Reports to all prospective investors in limited distribution pooled funds when they initially become prospective investors. The type of GIPS Report provided to a limited distribution pooled fund prospective investor

may be a GIPS Pooled Fund Report specific to the pooled fund in which the prospective investor is interested, or it may be a GIPS Composite Report for the composite in which the pooled fund is included, if the pooled fund is assigned to a composite.

To determine which pooled funds would be considered limited distribution pooled funds, one must first understand the other sub-category of pooled funds described in the GIPS standards—broad distribution pooled funds. A **broad distribution pooled fund** is defined as a pooled fund that is regulated under a framework that permits the general public to purchase or hold the pooled fund's shares and that is not exclusively offered in one-on-one presentations. Examples include mutual funds, exchange-traded funds, and other open-ended investment products. In contrast, a **limited distribution pooled fund** is defined simply as any pooled fund that is *not* a broad distribution pooled fund. These include privately offered funds such as hedge funds or other alternative investment products.

Broad distribution pooled funds are typically highly regulated, and the information that must or can be included in fund marketing materials is often dictated by laws and regulations. Additionally, the firm responsible for managing a broad distribution pooled fund typically does not have contact with investors, so delivering a GIPS Report to those investors may not be feasible. As a result, it was determined that requiring delivery of GIPS Reports to prospective investors in broad distribution pooled funds was not practical or necessary. However, firms are allowed to provide GIPS Reports to prospective investors in broad distribution pooled funds if they wish to do so or if requested.

Once the firm has provided a GIPS Report to a prospective client or prospective investor, the firm must provide an updated GIPS Report at least once every 12 months, as long as the firm still considers the recipient to be a prospective client or prospective investor. This requirement aligns with the requirement for firms to update GIPS Reports on at least an annual basis. Specifically, GIPS Reports must be updated to include information through the most recent annual period end within 12 months of that annual period end. With this requirement in mind, if a year has passed since the prospect last received a GIPS Report, a new version with updated information should be available.

A firm must also be able to demonstrate how it made every reasonable effort to provide GIPS Reports to prospective clients and limited distribution pooled fund prospective investors. To meet this requirement, firms are encouraged to establish policies and procedures for tracking which GIPS Reports were provided to which prospective clients or prospective investors and when they were provided.

The other type of GIPS Report referenced in the GIPS standards, GIPS Asset Owner Reports, are described further in the *GIPS Standards for Asset Owners*.

3.10 Lists of Composites and Pooled Funds

The GIPS standards require firms to maintain a complete list of all of their composites, including the associated composite descriptions. A **composite description** includes general information regarding the investment mandate, objective, or strategy of the composite. The list of composite descriptions must include any composites that have been terminated or discontinued for at least five years following the termination date. This requirement is designed to ensure that a firm's list of composite descriptions provides a full illustration of the firm's investment management capabilities, including strategies that are not currently active.

Firms that manage limited distribution pooled funds must also maintain a complete list of pooled fund descriptions for limited distribution pooled funds. A **pooled fund description** includes general information regarding the investment mandate, objective, or strategy of the pooled fund. Whereas the list of composite descriptions must include terminated composites, the firm's list of limited distribution pooled

fund descriptions is not required to include terminated pooled funds. Although a terminated composite could be reactivated in the future if a new portfolio opens that is managed to the composite strategy, a pooled fund generally cannot be reopened after it has closed.

The GIPS standards also specify a third list that must be maintained by firms that manage broad distribution pooled funds—a complete list of broad distribution pooled funds. This list is not required to include terminated funds or to include descriptions of the funds. Simply maintaining a list of the names of all active broad distribution pooled funds managed by the firm meets the requirement.

Once compiled, these lists must be made available upon request. Specifically, the complete list of composite descriptions must be provided to any prospective client who requests it; the complete list of pooled fund descriptions for limited distribution pooled funds must be provided to any limited distribution pooled fund prospective investor who requests it; and the complete list of broad distribution pooled funds must be provided to any broad distribution pooled fund prospective investor who requests it. With respect to the list of broad distribution pooled funds, a firm may direct prospective investors to a website where the list is maintained. The other two lists must be provided directly to prospects if requested. The fund lists may also be tailored to include only the funds in which the particular prospective investor would be eligible to invest. Additionally, firms are required to provide the description of any broad distribution pooled fund to any broad distribution pooled fund investor who requests it.

Prospective clients or investors may also request GIPS Reports for any composite or limited distribution pooled fund included on the lists. When requested, the firm must provide:

- a GIPS Composite Report for any composite that is requested by a prospective client, or
- a GIPS Composite Report or a GIPS Pooled Fund Report for any limited distribution pooled fund that is requested by a limited distribution pooled fund prospective investor.

With this requirement in mind, firms must have the ability to create a GIPS Report for any composite or limited distribution pooled fund included on their lists within a reasonable amount of time.

3.11 Supporting Records

Firms are required to maintain records that support their claim of compliance with the GIPS standards. This includes records to support composite membership, all inputs to performance calculations, and copies of current and previously applied policies and procedures. Further, firms that claim compliance are explicitly required to maintain all data and information necessary to support *all items* included in GIPS Reports, including statistical information and disclosures. The firm must also have the ability to produce these records and make them available within a reasonable time period for all periods presented.

In some instances, firms may place reliance on records and other information provided by third parties. When doing so, it remains the firm's responsibility to ensure that this information adheres to the requirements of the GIPS standards, including the requirement that the firm has the ability to produce the records within a reasonable time period.

Recordkeeping is one area in particular where the requirements of the GIPS standards may differ from applicable regulatory requirements. For example, regulation may require records supporting performance advertisements to be maintained for a specified period of time after the advertising materials were last used. The GIPS

standards, however, require that records be retained to support composite construction and performance calculations, even if the results are not published in advertising materials. Firms that claim compliance with the GIPS standards must adhere to the more stringent requirements when evaluating differences between the GIPS standards and applicable regulation.

3.12 Performance Track Record Portability

Mergers, acquisitions, and consolidations are not uncommon in the investment management industry. Portfolio managers may choose to leave one firm in order to join another. **Portability** refers to a firm's ability to use performance from a past firm or affiliation and represent it as its own historical performance. The GIPS standards permit performance from a past firm or affiliation to be presented by a new or acquiring firm—and even to be linked to the performance of the new or acquiring firm—if the requirements for portability are met on a composite-specific or pooled fund–specific basis. If a performance track record produced under a different firm or organization is included in a firm's GIPS Reports, that fact must be disclosed including identifying the relevant periods.

The following three criteria must be met for performance from a past firm or affiliation to be presented:

- Substantially all of the investment decision makers must be employed by the new or acquiring firm (e.g., research department staff, portfolio managers, and other relevant staff);
- The decision-making process must remain substantially intact and independent within the new or acquiring firm (i.e., the investment process must be materially the same at the new firm as it was at the prior firm); and
- The new or acquiring firm must have records to support the performance. The records required to support a portable track would be of the same quality and substance as those that would be expected for a track record that was produced for portfolios managed by the firm directly.

In order to link the prior firm track record to the ongoing track record of the firm (i.e., combining and presenting the history as one continuous performance series), one additional criterion must be met—there must be no break in the track record between the past firm or affiliation and the new or acquiring firm. A break in the track record creates a gap in the performance history and the new or acquiring firm must separately present the performance before and after the break. The fact that a break occurred must also be clearly illustrated and disclosed in the associated GIPS Report.

The rules for portability must be met on a composite-specific basis, meaning that the entire composite track record must satisfy the requirements, including all portfolios managed to the strategy historically. Not all portfolios managed to the strategy at the previous firm necessarily have to transfer to the new firm (i.e., the prior firm's clients do not need to become clients of the new firm), but the new firm must obtain records related to all portfolios that were managed to the strategy historically in order to recreate the full composite, not only those portfolios that make the transition to the new firm.

If a firm that claims compliance with the GIPS standards acquires another entity that does not comply, the compliant firm is allowed a one-year grace period in which to bring any non-compliant assets into compliance. During the grace period, the firm would be exempt from meeting the requirements of the GIPS standards with respect to the acquired assets—including those related to performance calculation and composite construction—without jeopardizing the firm's claim of compliance. For the firm to continue to claim compliance, however, the acquired assets must meet all requirements of the GIPS standards within one year of the acquisition date.

If the requirements for portability are met, then it is possible for multiple firms to claim the same performance track record as their own. For example, if a portfolio manager were to depart from a firm, that firm would still retain the ability to present the performance history of a strategy for which the portfolio manager was responsible, even if it is also presented by another organization that meets the requirements for portability. As a general rule, investment performance results are a record of the firm, not any individual, meaning that a firm's ability to continue to present a performance track record is not contingent upon the continued employment of those individuals who were responsible for generating it. The departure of key investment personnel, however, may need to be viewed as a significant event that warrants disclosure.

A question might arise regarding the alteration of the historical performance record in a portability scenario wherein one firm acquires another, both of which had complied with the GIPS standards independently. Could those two track records be combined retroactively? The answer is no, the historical performance record of each firm should not be altered. Although the acquired manager would become part of the acquiring firm on a prospective basis, neither the assets nor the performance records of the two organizations should be combined retroactively.

3.13 Error Correction

Typically, historical composite or pooled fund performance results should not be modified. The only legitimate reason why prior performance history might be changed is to correct an error. Firms must establish and document policies and procedures related to how errors impacting GIPS Reports will be evaluated, addressed, and potentially communicated to prospects and clients. The firm's error correction policy must establish a definition for materiality and indicate how a material error will be corrected once identified. Materiality must be defined by each firm individually and may vary for different asset classes, composites, or time periods. The underlying principle of determining materiality is whether the error correction may affect a prospective client's decision to invest with the firm. Typical factors that would be involved in assessing materiality include the absolute change to the reported performance figures, the size of the change relative to previously reported performance results, or the size of the change relative to the benchmark.

If a firm identifies a material error in a GIPS Report that has been provided to current clients or investors, prospective clients or investors, or verifiers, the firm must correct the GIPS Report and provide the corrected version to all current clients and investors that received the erroneous GIPS Report, as well as the firm's current verifier and, if applicable, any former verifiers that received the erroneous GIPS Report. The firm must also make every reasonable effort to provide the corrected GIPS Report to all current prospective clients and prospective investors that received the GIPS Report with the material error. The firm is not required to provide the corrected GIPS Report to former clients, former investors, former prospective clients, or former prospective investors.

3.14 CFA Institute Notification

Once a firm has met all of the requirements of the GIPS standards, it must notify CFA Institute prior to claiming compliance via the GIPS Compliance Notification Form, which is submitted electronically through the CFA Institute website. Following the initial notification, the form must be updated on an annual basis with information as of the most recent calendar year. Annual amendments must then be submitted by 30 June of each subsequent year.

Because submission of the GIPS Compliance Notification Form is a requirement of the GIPS standards, and all requirements must be satisfied for a firm to be able to claim compliance, firms are prohibited from claiming compliance until they have submitted the form.

EXAMPLE 3

Fundamentals of Compliance

1 A firm's policies and procedures must address how the firm adheres to each:
   - A requirement and recommendation of the GIPS standards.
   - B requirement of the GIPS standards, but not the recommendations.
   - C requirement of the GIPS standards and any recommendations the firm has chosen to adopt.

2 Firms are required to make every reasonable effort to provide a:
   - A GIPS Asset Owner Report to all prospective clients.
   - B GIPS Pooled Fund Report to all prospective clients.
   - C GIPS Composite Report to all prospective clients.

3 Upon request, firms must provide to prospective clients a complete list of:
   - A composite descriptions.
   - B pooled fund descriptions for limited distribution pooled funds.
   - C pooled fund descriptions for broad distribution pooled funds.

Solution to 1:

C is correct. A firm's policies and procedures must address each requirement of the GIPS standards as well as any recommendations that the firm has chosen to adopt. Recommendations that the firm has not chosen to adopt do not necessarily need to be addressed.

Solution to 2:

C is correct. Firms must make every reasonable effort to provide a GIPS Composite Report to all prospective clients. GIPS Pooled Fund Reports (or a GIPS Composite Report that includes the particular pooled fund) must be delivered to prospective investors in limited distribution pooled funds but not necessarily to prospective clients. GIPS Asset Owner Reports must be delivered to an asset owner's oversight body.

Solution to 3:

A is correct. The complete list of composite descriptions must be provided to prospective clients upon request. The list of pooled fund descriptions for limited distribution pooled funds must be provided to any limited distribution pooled fund prospective investor who requests it, although it is not required that the list of pooled fund descriptions for limited distribution pooled funds be made available to prospective clients. Firms are required to maintain a list of broad distribution pooled funds and provide it upon request to broad distribution pooled fund prospective investors, but the list is not required to include descriptions.

4 FIRM INPUT DATA AND RETURN CALCULATIONS

Section 2 of the GIPS Standards for Firms addresses the requirements and recommendations for input data and return calculations. Input data covers the compilation of total firm assets, general accounting principles, and conditions related to valuation procedures and frequency. The elements related to calculation methodologies address the calculation of portfolio time-weighted and money-weighted returns and the treatment of external cash flows, cash and cash equivalents, transaction costs, and management fees. For the exam, candidates are responsible for the requirements under Section 2 but, on the job, an understanding of the recommendations will help ensure that the firm's GIPS compliance program meets the objectives of fair representation and full disclosure.

4.1 Firm Input Data

The provisions of the GIPS standards related to input data cover:

- the assets that must be included when calculating total firm, composite, or pooled fund assets;
- accounting and other general principles that must be followed; and
- the valuation of assets.

4.1.1 *Total Firm Assets*

Total firm assets reflect the aggregate fair value of all portfolios for which the firm has investment management responsibility. It is an expression of the value of all assets that clients and investors have entrusted the firm to manage. The definition of the firm determines the portfolios that must be included in total firm assets, because all portfolios that fall within the scope of the defined firm must be accounted for in the calculation. All portfolios included in total firm assets must then be considered for inclusion in composites.

Total firm assets must include both discretionary and non-discretionary portfolios. **Discretion** is the ability of the firm to implement its intended strategy; however, the specific elements of discretion may vary across strategies and firms, depending on what criteria the firm determines are necessary for a strategy to be fully implemented. With this in mind, each firm that claims compliance with the GIPS standards must determine its own definition of discretion and document it in the firm's policies and procedures. Portfolios that do not meet the firm's definition of discretion are non-discretionary. Non-discretionary portfolios are considered to not be representative of the firm's management process and must not be included in composites, but they must still be accounted for in total firm assets. Further details on defining discretion are outlined later in this reading.

In addition, total firm assets are required to include the assets of both **fee-paying portfolios**, for which a fee is paid to the firm for investment management, as well as **non-fee-paying portfolios**, for which no investment management fee is paid. Although total firm assets must include non-fee-paying portfolios, the firm can choose whether to include non-fee-paying portfolios in composites on a composite-specific basis.

If the firm has the authority to assign a **sub-advisor** to manage a portfolio or a portion of a portfolio (i.e., the firm can hire or fire the sub-advisor), then the firm must include the performance of those portfolios in the firm's performance history and in total firm assets. For example, if a firm specializes in managing equity portfolios, it may hire a third-party investment manager who has expertise in fixed income to manage portfolios or segments of portfolios that invest in bonds. This third-party manager is then a sub-advisor to the firm. Because the sub-advisor has discretion over

the actual investment decisions of the assets and the firm has discretion to hire or fire the sub-advisor, both the firm and the sub-advisor are able to include the assets in their respective total firm assets.

Total firm assets can include only actual assets managed by the defined firm. Specifically, non-actual assets (e.g., hypothetical, backtested, or model portfolios) or actual assets that are not included within the definition of the firm (e.g., assets managed by the firm's parent company, if the parent company is not part of the defined firm) must be excluded from total firm assets.

Total firm assets must not include advisory-only assets or uncalled committed capital. **Advisory-only assets** are assets for which the firm provides investment recommendations but has no control over the implementation of the investment decisions and does not have trading authority. **Uncalled committed capital** refers to assets that have been pledged to the firm by clients or investors, but the firm has yet to call (or "draw down") the capital.

When calculating total firm assets, values for portfolios that employ leverage must be net of any discretionary leverage and not grossed up as if the leverage did not exist. **Leverage** is created by borrowing or using financial instruments, such as derivatives, to increase the exposure of a portfolio beyond the fair value of its assets. The key determinant of whether leverage is considered discretionary or non-discretionary is which party makes the decision to lever the portfolio. If the decision to use leverage is made by the firm, rather than the client, then the leverage is discretionary and the impact of that leverage should not be reflected in total firm assets. For example, if a client invests $1 million with a firm and the firm levers the assets up to $10 million through the use of derivatives or borrowing, only the $1 million furnished by the client may be reflected in total firm assets. On the other hand, if the client secures the leverage and allocates the gross amount of $10 million to the manager, then the leverage is considered non-discretionary and the gross assets must be included in total firm assets.

Firms must also be careful to avoid double counting assets when calculating total firm assets, because doing so does not fairly represent the total assets managed by the firm. A firm must therefore ensure that each asset is counted only once when calculating total firm assets. The greatest risk of double counting assets arises when a firm manages separate accounts that invest in pooled funds also managed by the firm. If double counting is not removed, reported assets will be inflated and potentially misleading. For example, assume a firm manages a single pooled fund and a single separate account. The pooled fund holds $100 million in assets and the separate account holds $50 million in assets, $25 million of which are investments in the pooled fund. When calculating total firm assets, the separate account's investment in the pooled fund must be removed; otherwise those assets will be double counted. The firm's reported total firm assets are $125 million ($100 million + $50 million – $25 million).

4.1.2 *Accounting and Other General Principles*

Firms must follow certain general principles in order to produce performance results that meet the requirements of the GIPS standards.

- The GIPS standards require that performance calculations reflect total returns—the rate of return that includes realized gains and losses, unrealized gains and losses, and income for the measurement period. To produce a total return, portfolio valuations must include all three of these components.
- Transactions must be recorded using **trade date accounting**, which recognizes the asset or liability on the date of the purchase or sale and not on the settlement date.

- **Accrual accounting** involves the recording of transactions as income is earned or expenses are incurred, rather than when income is received or expenses are paid. Accrual accounting must be used for fixed-income securities and all other investments that earn interest income, with the exception of interest income on cash and cash equivalents, which may be recognized on a cash basis. Firms are also encouraged to use accrual accounting when capturing dividend income but are not required to do so.
- Additionally, the value of cash and cash equivalents associated with portfolios must be included in total portfolio valuations. Cash must be accounted for even if the firm does not control how the cash is invested (e.g., if it is invested separately by the client or swept into a money market fund). This requirement is important to ensure that all assets are considered when valuing the portfolio or measuring performance, not only the invested assets.

4.1.3 *Valuation*

e compare fair value and market value of assets and show how to implement the valuation recommendations of the GIPS standards, including the valuation hierarchy

The GIPS standards require portfolios to be valued based on fair value in accordance with the composite-specific or pooled fund–specific valuation policy established by the firm. **Fair value** is defined as the amount at which an investment could be sold in an arm's-length transaction between willing parties in an orderly transaction. Fair value must reflect the **market value** of the security—the objective, observable, unadjusted quoted market price for an identical investment in an active market on the measurement date—if available. *In other words, the fair value of an investment is the market value of the investment, unless the market value is not known.* In the absence of market value, the valuation must represent the firm's best estimate of the fair value. Fair value must include any accrued income.

A firm's policies and procedures must address situations in which market prices for identical investments are unavailable. To satisfy this requirement, the GIPS standards recommend that the following valuation hierarchy for determining fair value be incorporated into a firm's policies and procedures. A firm may apply a different valuation hierarchy, but if the firm's valuation hierarchy materially differs from the recommended hierarchy, this fact must be disclosed in the firm's GIPS Reports.

Recommended Valuation Hierarchy

1. Investments must be valued using objective, observable, unadjusted quoted market prices for identical investments in active markets on the measurement date, if available (i.e., market value). If such prices are not available, then investments should be valued using;
2. Objective, observable quoted market prices for similar investments in active markets (e.g., market prices for investments within the same asset class with similar characteristics to the investment being valued). If such prices are not available or appropriate, then investments should be valued using;
3. Quoted prices for identical or similar investments in markets that are not active (markets in which there are few transactions for the investment, the prices are not current, or price quotations vary substantially over time and/or between market makers). If such prices are not available or appropriate, then investments should be valued based on;

4 Market-based inputs, other than quoted prices, that are observable for the investment (e.g., reported earnings). If such inputs are not available or appropriate, then investments should be valued based on;

5 Subjective, unobservable inputs for the investment where markets are not active at the measurement date. Unobservable inputs should be used to measure fair value only when observable inputs and prices are not available or appropriate. Unobservable inputs reflect the firm's own assumptions about the assumptions that market participants use in pricing the investment and should be developed based on the best information available under the circumstances. Unobservable inputs may be based on the reporting company's own data adjusted using other available information, such as default rates or discounts for lack of liquidity.

Fair value and market value will be the same for actively traded securities. With this fact in mind, firms that invest in only liquid securities that are traded in active markets (such as exchange-traded equities) typically do not need to perform any additional fair valuation procedures. However, firms that trade in securities that do not have a readily determinable market price on a regular basis (such as private equity or real estate) must implement processes for determining proper valuations for such securities. Such procedures will typically include implementing and following a valuation policy that details how valuations will be determined for different types of securities. When subjective, unobservable inputs are factored into the valuation process, many firms use proprietary pricing models and involve a pricing committee or other oversight group to provide a separate review and ultimate approval.

Generally, the most objective investment valuations are those that are obtained from an independent source. With this in mind, the GIPS standards recommend that valuations be obtained from a qualified independent third party. In particular, firms are recommended to obtain an external valuation at least once every 12 months for **private market investments** such as real assets, private equity, and similar investments that are illiquid, not publicly traded, and not traded on an exchange. Notably, real estate investments are required to receive an external valuation at least once every 12 months, except for in certain circumstances.

If the firm uses a preliminary or estimated value as the fair value for an investment, the firm must believe that the value used is the best approximation of the current fair value. If a revised value is subsequently received, the firm must assess the difference between the preliminary or estimated value and the final value, as well as the effect it has on composite or pooled fund assets, total firm assets, and performance, and make any necessary adjustments following the firm's error correction policy.

4.1.4 *Valuation Frequency*

When calculating time-weighted returns for portfolios that are included in composites, all portfolios—with the exception of private market investment portfolios—must be fair valued:

- at least monthly as of the calendar month end or the last business day of the month, and
- on the date of all large cash flows.

Composites and pooled funds must also have consistent beginning and ending annual valuation dates. Unless the composite or pooled fund is reported on a non-calendar fiscal year, the beginning and ending valuation dates must be at calendar year end or on the last business day of the year.

An **external cash flow** is capital (cash or investments) that enters or exits a portfolio, excluding income (dividends or interest payments). Firms that do not fairly value portfolios on the date of all external cash flows must establish a definition of "large cash flow" for each composite to determine when portfolios in that composite must be valued. A **large cash flow**, which is defined at the composite level, is the level at

which the firm determines that an external cash flow may distort performance if the portfolio is not valued at the date of the cash flow. Firms must define the amount in terms of the value of the cash flow (a specific monetary amount) or in terms of a percentage of the portfolio assets or the composite assets. The firm must also determine if a large cash flow is a single external cash flow or an aggregate of a number of external cash flows within a stated period. The firm must calculate sub-period returns during the month when mid-month valuations are necessary because of large cash flows, as detailed in the following section.

Because more-frequent valuation produces more-accurate performance results, firms are encouraged to value portfolios on the date of *all* external cash flows, not only cash flows that are considered large. However, firms are not permitted to value portfolios more frequently than required by their valuation policy (i.e., firms cannot selectively value portfolios more frequently than specified by the policy in order to improve performance).

When calculating time-weighted returns for private market investment portfolios that are included in composites, portfolios must be valued at least quarterly as of each quarter end or the last business day of the quarter. Because of the fact that private markets are generally less liquid and intra-period pricing is typically not available, private market investment portfolios are not required to be valued on the date of large cash flows.

When calculating time-weighted returns for pooled funds that are *not* included in a composite, the pooled funds must be valued:

- at least annually as of the calendar or fiscal year end,
- whenever there are subscriptions to or redemptions from the pooled fund, and
- as of the period end for any period for which performance is calculated.

If a pooled fund or composite meets the requirements for presenting money-weighted returns, and the firm chooses to present money-weighted returns, the firm must value portfolios that use money-weighted returns at least annually and as of the period end for any period for which performance is calculated.

Although the terms appear similar, a *large cash flow* differs from a *significant cash flow* in the GIPS standards. A **significant cash flow** is the level at which the firm determines that one or more client-directed external cash flows may temporarily prevent the firm from implementing the composite strategy. A significant cash flow may trigger the temporary removal of a portfolio from composites, whereas a large cash flow triggers the inter-period valuation of a portfolio without disrupting the assignment of the portfolio to composites. Because the firm is unable to implement the intended strategy when a significant cash flow occurs, the portfolio is considered to be temporarily non-discretionary which warrants removing the portfolio from the assigned composite(s). Significant cash flows are addressed in more detail later in this reading.

EXAMPLE 4

Firm Input Data

1 Total firm assets must include:

 A only discretionary fee-paying portfolios.

 B only discretionary and non-discretionary portfolios that are fee paying.

 C all discretionary and non-discretionary portfolios that are either fee-paying or non-fee-paying.

2 Accrual accounting must be used for:

- **A** interest income for a money market fund.
- **B** interest income for a corporate bond.
- **C** dividend income for a common stock.

3 Portfolios are required to be valued based on:

- **A** estimated value.
- **B** market value.
- **C** fair value.

4 When determining fair value for an investment when market values are not available, a firm should first:

- **A** use quoted market prices for similar investment in active markets, if available.
- **B** determine the valuation using market-based inputs, other than quoted prices, that are observable for the investment.
- **C** determine the valuation using subjective, unobservable inputs.

5 When calculating time-weighted returns for private market investment portfolios that are included in composites, portfolios must be valued:

- **A** at least monthly.
- **B** at least quarterly.
- **C** on the date of all large cash flows.

Solution to 1:

C is correct. Total firm assets must capture all portfolios managed by the firm that are discretionary or non-discretionary, including portfolios that pay a management fee and those that do not.

Solution to 2:

B is correct. Accrual accounting is required for fixed-income securities and all other investments that earn interest income, with the exception of interest income on cash and cash equivalents. Accrual accounting is recommended for dividend income.

Solution to 3:

C is correct. The GIPS standards require portfolios to be valued based on fair value in accordance with the composite-specific or pooled fund–specific valuation policy established by the firm. Although market value will equal fair value when market values are available, that is not always the case.

Solution to 4:

A is correct. If quoted market prices are not available for identical investments, the first alternative should be to use quoted market prices for similar investments.

Solution to 5:

B is correct. Private market investment portfolios are required to be valued at least quarterly. Portfolios other than private market investment portfolios must be valued at least monthly and on the date of all large cash flows.

4.2 Calculation Methodologies

Firms are required to create and implement policies and procedures that address the manner in which investment performance is calculated. Once established, the firm's policies and procedures must be applied consistently. The policies and procedures may be established on a composite-specific or pooled fund–specific basis.

When calculating composite or pooled fund performance, firms must ensure that:

- Only actual assets managed by the firm are included. Non-actual assets, such as theoretical or hypothetical portfolios, as well as actual assets that are not included within the definition of the firm must be excluded.
- Accrued income is included in the beginning and ending portfolio value, where applicable.
- Returns from cash and cash equivalents are included. Investment portfolios tend to hold some amount of cash or cash equivalents. Excluding the performance results of such assets would not reflect the true performance of the total portfolio, so they must be captured.
- Returns are calculated net of discretionary leverage (leverage created by the actions of the firm, rather than the client).

Because large external cash flows can substantially distort the accuracy of returns when markets are volatile, the GIPS standards require firms to document composite-specific policies for the treatment of external cash flows and to adhere to those policies consistently.

Under most circumstances, time-weighted return (TWR) is the return measure required by the GIPS standards for presenting performance for composites and pooled funds. In certain situations, however, a firm that claims compliance with the GIPS standards may choose instead to present a money-weighted return (MWR).

4.2.1 *Portfolio Time-Weighted Returns*

TWR is the preferred method for performance reporting in most circumstances because external cash flows tend to be client directed, and the manager's performance should not be affected (positively or negatively) by factors outside of the manager's control. By removing the impact of external cash flows, TWR will best reflect the firm's investment strategy and process as it would be applied to any discretionary portfolio, allowing prospective clients who view the performance to fairly evaluate the track record.

For periods when no external cash flows occur, a time-weighted return is simply the percentage change in the portfolio value during the period. It can be expressed as follows:

$$r_t = \frac{EV_t - BV_t}{BV_t}$$

where

r_t = the return for the portfolio for period t
EV_t = the ending value of the portfolio for period t
BV_t = the beginning value of the portfolio for period t

To adjust for external cash flows, the most accurate method is to calculate a time-weighted return each day, then to compound those daily returns through geometric linking in order to calculate returns for longer time periods. This is the recommended approach under the GIPS standards, but firms that claim compliance are allowed some flexibility to calculate performance less frequently. Specifically, when calculating time-weighted returns for portfolios *that are included in composites* (other than private market investment portfolios), returns must be calculated at least monthly

through the calendar month-end or the last business day of the month using a method that adjusts for daily-weighted external cash flows, and the calculations must also be adjusted when large cash flows occur.

One acceptable methodology for calculating portfolio returns that adjust for daily-weighted external cash flows is the **Modified Dietz Method**, which weights each external cash flow in the denominator of the performance calculation formula by the amount of time it is held in the portfolio. The formula for the Modified Dietz method expands on the simple return formula outlined earlier to include the total net cash flows occurred during the period in the numerator and the weighted value of each cash flow in the denominator. It can be expressed as follows:

$$r_t^{MD} = \frac{EV_t - BV_t - CF_t}{BV_t + (CF_t \times w_t)}$$

where

r_t^{MD} = the Modified Dietz return for the portfolio for period t

EV_t = the ending value of the portfolio for period t
BV_t = the beginning value of the portfolio for period t
CF = the total net value of external cash flows in period t

w_t = the weight of each external cash flow in period t (assuming the external cash flow occurred at the end of the day), as calculated according to the following formula:

$$w_t = \frac{D_t - D_i}{D_t}$$

where
D_t = the total number of calendar days in period t
D_i = the number of calendar days from the beginning of period t to the date of external cash flow i

The formula may be modified to assume that external cash flows occurred at the beginning of the day, rather than end of day, in which case the numerator would be $D_t - D_i + 1$. Either approach is acceptable, although each firm must determine which method it will use and then follow that method consistently.

CALCULATING RETURNS FOLLOWING THE MODIFIED DIETZ METHOD

Cash flows are assumed to occur at the end of the day.

Portfolio beginning value (BV) as of 31 December: $100,000
External cash flow (CF) on 19 January (D_i): $15,000
Portfolio ending value (EV) on 31 January (D_t): $121,000

$$r_t^{MD} = \frac{EV_t - BV_t - CF_t}{BV_t + (CF_t \times w_t)}$$

First, calculate w_t to determine the weight of the external cash flow:

$$w_t = \frac{D_t - D_i}{D_t}$$

$$w_t = (31 - 19) / 31 = 0.387$$

Then, plug the variables into the Modified Dietz formula:

$$r_t^{MD} = \frac{121{,}000 - 100{,}000 - 15{,}000}{100{,}000 + (15{,}000 \times 0.387)}$$

$$r_t^{MD} = \frac{6{,}000}{105{,}805} = 5.67\%$$

When a portfolio experiences external cash flows that meet the firm's definition of a large cash flow, additional steps are needed to calculate a time-weighted return that meets the requirements of the GIPS standards. Specifically, unless daily returns are calculated, sub-period returns must be calculated at the time of all large external cash flows. Sub-period returns must then be linked to calculate monthly or longer period returns. **Linking** performance results refers to geometrically combining periodic returns to produce returns for longer time periods.

The formula for geometrically linking sub-period returns is as follows:

$$r_t^{TWR} = \left[(1 + r_1) \times (1 + r_2) \times \ldots \times (1 + r_I)\right] - 1$$

where r_t^{TWR} is the time-weighted return for period t, and period t consists of I sub-periods.

For example, a firm might define that any individual external cash flow greater than 10% of the portfolio's beginning-of-month valuation is considered large. If any portfolio experiences an external cash flow that exceeds the 10% threshold, the portfolio will be valued on that day and sub-period returns will be linked.

MODIFIED DIETZ WITH LARGE CASH FLOWS

Assume that the firm managing the following portfolio values portfolios on the date of large cash flows. The firm defines a large cash flow as any external cash flow that is 10% or greater of the portfolio's beginning-of-month value. The time-weighted return for the period can be calculated as follows, assuming external cash flows are recognized at the end of the day:

Portfolio beginning value (BV) as of 31 December: $100,000

External cash flow (CF) on 19 January (D_i): $15,000

Portfolio ending value (EV) on 19 January (D_i): $117,000

Portfolio ending value (EV) on 31 January (D_t): $121,000

First, calculate the return for the first sub-period (1 January through 19 January):

$$r_{s1} = \frac{117{,}000 - 100{,}000 - 15{,}000}{100{,}000} = 2.00\%$$

Next, calculate the return for the second sub-period (20 January through 31 January):

$$r_{s2} = \frac{121{,}000 - 117{,}000}{117{,}000} = 3.42\%$$

Then, geometrically link the two sub-period returns to produce the return for the full month:

$$R_t = [(1 + 2.00\%) \times (1+ 3.42\%)] - 1 = 5.49\%$$

The required calculation frequency for private market investment portfolios that are included in a composite differs from other types of portfolios. Rather than calculating monthly returns, time-weighted returns for private market investment portfolios must be calculated at least quarterly through the calendar quarter end or the last business day of the quarter using a methodology that daily-weights external cash flows. Sub-period returns at the time of large external cash flows are not required

to be calculated for private market investment portfolios. The relaxed requirement for private market investment portfolios coincides with the required valuation frequency of such portfolios and the fact that private market investments are generally illiquid.

Pooled funds that are not included in composites also have different return calculation frequency requirements. Time-weighted returns for pooled funds that are not included in a composite are only required to be calculated annually through the calendar or fiscal year end or the last business day of the year. Sub-period returns must also be calculated at the time of all subscriptions and redemptions (contributions and withdrawals), and the sub-period returns must then be geometrically linked to calculate monthly or longer period returns.

Once established, all external cash flows must be handled according to the firm's composite-specific policy. The firm must also consistently apply the calculation methodology used for an individual portfolio (i.e., the firm cannot opportunistically change methodologies in order to improve performance).

4.2.2 *Portfolio Money-Weighted Returns*

Unlike a time-weighted return (TWR), which removes the effect of external cash flows, the money-weighted return (MWR) is directly impacted by external cash flows, both when they occur and how large they are. MWR is the return that an investor actually experiences, whereas TWR can generally be thought of as the return attributed to the investment manager. In certain circumstances, however, MWR may reflect both the return of the client and the investment manager—specifically, when the investment manager controls the timing of external cash flows. With this in mind, firms may choose to present performance results calculated using an MWR instead of a TWR if certain criteria have been met, with the primary factor being that the firm must be able to control the timing of external cash flows into the composite or pooled fund. This is essential because it is appropriate to use an MWR to represent a manager's performance only when the manager is responsible for and has control over cash flow timing decisions, because those decisions will have a direct impact on the MWR. Notably, during periods when no external cash flows occurred, TWR and MWR will produce the same results.

In addition to the firm controlling the timing of external cash inflows, the strategy or product must also have at least one of the following characteristics for MWR to be presented instead of TWR:

- closed-end (the product is not open for subscriptions and/or redemptions),
- fixed life (having a predetermined, finite investment horizon),
- fixed commitment (having a predetermined amount of committed capital), or
- illiquid investments (investments that may be difficult to sell without a price reduction or that cannot be sold quickly because of a lack of market or ready/willing investors) as a significant part of the investment strategy.

If a pooled fund or composite meets the requirements for presenting an MWR, and the firm chooses to present an MWR, the firm must calculate annualized since-inception money-weighted returns using daily external cash flows. The since-inception MWR is an MWR in which the measurement period covers the entire investment period since inception. Unlike when presenting TWRs, the presentation of annual or sub-period MWRs is not required. An MWR is intended to reflect the performance results of a product or strategy throughout the full investment period and is not necessarily meaningful or appropriate over a more finite time period.

A common method for calculating a money-weighted return is the **internal rate of return (IRR)**. IRR is the implied discount rate or effective compounded rate of return that equates the present value of cash outflows with the present value of cash inflows.

The formula for calculating IRR is as follows:

$$0 = \sum_{i=0}^{I} CF_i (1 + r_{IRR})^{-\left(\frac{t_i}{365}\right)}$$

where

CF_i = external cash flow i
i = number of external cash flows during the measurement period
r_{IRR} = annualized internal rate of return
t_i = number of calendar days between the beginning of the measurement period and the date of external cash flow i

The since-inception internal rate of return (SI-IRR) is a special version of the IRR in which the period-end value of the investment is treated as a synthetic terminal cash outflow and is calculated as follows:

$$0 = \left[\sum_{i=0}^{I} CF_i (1 + r_{SI-IRR})^{-\left(\frac{t_i}{365}\right)}\right] + \left[EV(1 + r_{SI-IRR})^{-\left(\frac{TD}{365}\right)}\right]$$

where

CF_i = external cash flow i
i = number of external cash flows during the measurement period
$r_{SI\text{-}IRR}$ = annualized since-inception internal rate of return
t_i = number of calendar days between the beginning of the measurement period and the date of external cash flow i
EV = value of the investment at the end of the measurement period
TD = total number of calendar days in the measurement period

An exception to the requirement to annualize the since-inception money-weighted return occurs when the portfolio has less than 12 months of performance history. Returns for periods of less than one year must not be annualized under any circumstances, because doing so produces a hypothetical result that assumes that the performance results achieved during that portion of the year included in the calculation will continue throughout the remainder of year. Therefore, when calculating an IRR for a period less than a full year, a non-annualized SI-IRR must be calculated. The formula is as follows:

$$R_{SI-IRR} = \left[(1 + r_{SI-IRR})^{\frac{TD}{365}}\right] - 1$$

where

$R_{SI\text{-}IRR}$ = non-annualized since-inception internal rate of return
$r_{SI\text{-}IRR}$ = annualized since-inception internal rate of return
TD = total number of calendar days in the measurement period

If a firm meets the requirements for presenting MWR and chooses to do so, it must not opportunistically switch back and forth between presenting MWR and TWR. The firm must consistently present the selected return measure for each composite or pooled fund. On occasion, however, a firm may choose to change the type of returns presented for a composite or pooled fund, but when doing so, the firm must disclose the change and the date on which it was made in the corresponding GIPS Reports. The disclosure must remain in the GIPS Report for a minimum of one year, with the goal of minimizing the frequency of such changes. If desired, a firm could also elect to present both MWR and TWR.

4.2.3 *Treatment of Transaction Costs*

Transaction costs are the costs of buying and selling investments. These costs typically take the form of brokerage commissions, exchange fees, and/or bid–offer spreads from brokers. Transaction costs are an inherent cost of investing—typically, an asset cannot be purchased or sold without incurring transactions costs in some form. Because transaction costs traditionally are unavoidable when implementing an investment strategy, they must be accounted for as a component of performance. The GIPS standards, therefore, require that transaction costs be deducted from all performance calculations.

If the actual transaction costs incurred during the period are known, they must be deducted from performance. If actual transaction costs are not known, however, an estimate may be used. If estimated transaction costs are used, the estimate must represent a fair approximation of actual transaction costs. One way to approach estimating transaction costs is to base the estimate on the actual transaction costs incurred for portfolios that the firm manages in the same or a similar strategy.

4.2.4 *Treatment of Investment Management Fees*

As previously noted, all returns must be reduced by transaction costs. A return that reflects only the deduction of transaction costs is the **gross-of-fees return** (i.e., before the deduction of investment management fees). The **net-of-fees return** reflects the deduction of both transaction costs and investment management fees. **Investment management fees** are the fees payable to the firm for managing a portfolio. Investment management fees are typically asset based (a percentage of assets), performance based (determined based on the portfolio's performance on an absolute basis or relative to a benchmark or other reference point), or a combination of the two. Investment management fees also include **carried interest** (the portion of profits paid or allocated to the general partner of certain types of pooled funds). Administrative fees—all fees other than transaction costs and investment management fees, including custody fees, accounting fees, auditing fees, and other related fees—are not required to be deducted from either gross-of-fees or net-of-fees performance.

The following table helps illustrate the relationship between gross-of-fees and net-of-fees returns:

Return on investment
minus Transaction costs
Equals **Gross-of-fees return**
minus Investment management fees
Equals **Net-of-fees return**
minus Administrative fees, including custody fees
Equals Client return

Note that neither the pure return on investment nor the client return is generally used when calculating composite performance.

When calculating composite net-of-fees returns, the investment management fees used in the calculation must be either:

- the *actual* investment management fees incurred by each portfolio in the composite, or
- a *model* investment management fee (i.e., an assumed fee rate that is applied to each portfolio within the composite or to the composite as a whole).

If a model investment management fee is used to calculate composite net-of-fees returns, the firm must determine that the model fee applied is appropriate to prospective clients. Assessing whether the model fee is appropriate requires considering the current fee schedule that is offered to prospective clients for the given strategy as well

as the actual fees charged to portfolios included within the composite. The appropriate model investment management fee may vary depending on the intended recipient of the performance information and the fees that would apply to them.

Additionally, if a firm uses model investment management fees to calculate composite net-of-fees returns, the resulting returns must be equal to or lower than those that would have been calculated using actual investment management fees. It would be misleading for a firm to use a model investment management fee to calculate composite net-of-fees returns that result in higher performance than was achieved by actual clients invested in the strategy. This is the case even if the prospective client to whom the performance is being presented is offered a lower fee.

With respect to the timing of when fees are deducted from performance, the GIPS standards recommend that investment management fees be accrued so as to apply the fee to the period in which it was earned rather than when it was received. For example, if a portfolio is charged fees on a quarterly basis and fees are accrued, the quarterly fee will be divided by three and equal portions will be allocated to each month within the quarter. This approach also has the effect of smoothing the impact of fees throughout the year. Alternatively, if the quarterly fee were accounted for on a cash basis, only the period in which the fee was received would be impacted. During the other two months of the quarter, the gross-of-fees return would equal the net-of-fees return.

A situation that complicates the treatment of fees is when portfolios invest in other portfolios. This scenario is often the case with pooled funds, the shares of which may be held in a segregated account or another pooled fund (e.g., a fund-of-funds). When this occurs, all returns (both gross- and net-of-fees returns) must reflect the deduction of all fees and expenses charged at the underlying pooled fund level, because these are inherent costs of investing in the fund and, therefore, must be treated the same as transaction costs. However, if the firm managing the portfolio also manages the underlying portfolio funds, they likely also control the investment management fees that are charged to the pooled funds. If so, the firm may calculate gross-of-fees returns that do not reflect the deduction of the underlying pooled fund investment management fees for the funds that it manages.

Some portfolios may be charged a **bundled fee**, which can include any combination of investment management fees, transaction costs, custody fees, and/or administrative fees. Bundled fees typically apply to wrap fee arrangements, in which a wrap fee sponsor serves as an intermediary between the firm and the wrap fee client. Because all performance results are required to be reduced by transaction costs, firms must determine the portion of the bundled fee charged to that portfolio that is attributed to transaction costs in order to deduct that portion from performance. Doing so may be difficult, however, because the breakdown of what portion of the bundled fee is attributed to each type of fee or expense may be not be available to the firm. Therefore, if the firm cannot estimate the transaction costs that would be associated with a portfolio that is charged a bundled fee, or if the actual transaction costs cannot be segregated from the bundled fee, gross-of-fees returns must be reduced by the entire bundled fee or the portion of the bundled fee that is known to include the transaction costs. Additionally, when calculating returns that are intended to be presented to a wrap fee prospective client, the returns must be reduced by the entire bundled fee—not just the portion that includes transaction costs and investment management fees—because the entire bundled fee reflects the full cost of the investment management services that would be incurred by a wrap fee client.

When calculating pooled fund net returns to be included in a GIPS Pooled Fund Report, pooled fund net returns must be reduced by the **total pooled fund fees**—which include all fees and expenses charged to the pooled fund, including but not limited to investment management fees and administrative fees. Either the actual total pooled fund fees or a model total pooled fund fee appropriate to prospective investors may be used. Similar to when a model fee is used to produce composite net-of-fees returns,

if the firm uses model total pooled fund fees to calculate pooled fund net returns, the returns must be equal to or lower than those that would have been produced using the actual total pooled fund fees.

EXAMPLE 5

Return Calculations

1 The return measure generally required by the GIPS standards for composites and pooled funds is a:
   - A time-weighted return.
   - B money-weighted return.
   - C internal rate of return.

2 One of the criteria that must be met for a firm to present a money-weighted return instead of a time-weighted return is:
   - A the firm must control the timing of external cash flows into and out of the composite or pooled fund.
   - B the firm must control the timing of external cash flows into the composite or pooled fund.
   - C the client must control the timing of external cash flows into and out of the composite or pooled fund.

3 A time-weighted return:
   - A negates the impact of external cash flows.
   - B is impacted by the size of external cash flows.
   - C is impacted by the timing of external cash flows.

4 When calculating time-weighted returns for periods when large cash flows occur, it would not be an acceptable option to calculate:
   - A daily returns.
   - B monthly returns that adjust for daily-weighted external cash flows.
   - C sub-period returns at the time of all large cash flows, which are then geometrically linked in order to calculate returns for longer periods.

5 A composite net-of-fees return reflects the deduction of:
   - A transaction costs only.
   - B transaction costs and investment management fees.
   - C transaction costs and administrative fees.

Solution to 1:

A is correct. Time-weighted return is required unless certain criteria are met, in which case the firm can elect to present a money-weighted return instead. The internal rate of return is a form of money-weighted return.

Solution to 2:

B is correct. The firm is required to control the timing of cash inflows, not outflows, in order for a money-weighted return to be presented, in addition to meeting one of the four other criteria.

Solution to 3:

A is correct. Time-weighted return attempts to negate or neutralize the impact of external cash flows. Money-weighted return is affected by both the timing and size of external cash flows.

Solution to 4:

B is correct. Unless daily returns are calculated, sub-period returns must be calculated at the time of all large external cash flows. Calculating monthly returns that adjust for daily-weighted external cash flows is only an acceptable approach when external cash flows occur that are not considered large cash flows.

Solution to 5:

B is correct. Net-of-fees composite returns must be reduced by transaction costs and investment management fees. A return that has been reduced only by transaction costs is a gross-of-fees return. Administrative fees are not required to be deducted from net-of-fees performance.

5 COMPOSITE CONSTRUCTION AND REPORTING

By including in a single composite all portfolios managed to a particular strategy for which the firm has full discretion, the firm can produce a full and accurate representation of the investment track record. Using composite results rather than those of an individual portfolio prevents *selection bias*—presenting only the results of the firm's best-performing portfolios (cherry-picking portfolios). Composites must also include terminated portfolios for the periods in which they were managed on a discretionary basis, which avoids *survivorship bias*—only presenting performance for portfolios that performed well enough to avoid being terminated by the client.

5.1 Defining Composites

i. explain the role of investment mandates, objectives, or strategies in the construction of composites

The determination of which portfolios are included in a particular composite should be done according to pre-established, objective criteria. A **composite definition** is the detailed criteria that determine the assignment of portfolios to a composite. In other words, the composite definition establishes the rules that dictate whether a portfolio will be included in or excluded from the composite. Above all else, composites must be defined according to *investment mandate, objective,* or *strategy.* All portfolios included in the same composite should have similar attributes, invest in similar types of securities, and/or have similar investment goals or risk tolerances that cause the portfolios to be constructed in a materially similar manner and produce performance results that have a high degree of correlation. It would not be appropriate to include portfolios in the same composite that are managed in a materially different manner or have significantly different objectives, because the combination of such portfolios would not reflect a distinct strategy offered by the firm or provide meaningful information to prospective clients.

The GIPS standards require firms to create and maintain composites for all strategies that the firm manages for or offers as a *segregated account.* (Recall that a segregated account is any portfolio that is owned by a single client.) Concurrently, all actual, fee-paying, discretionary segregated accounts must be included in at least one composite. With regard to pooled funds, firms are not required to create a composite that only includes one or more pooled funds if the strategy is not offered as a segregated account. Once a composite has been created, however, it must include all actual, fee-paying, discretionary portfolios—both segregated accounts and pooled funds—that meet the composite definition. If a pooled fund meets the definition of an existing composite, it must be included in that composite in order for the composite to accurately reflect

the full history of the strategy. Firms also have the option of creating composites that include one or more pooled funds managed to a strategy that is not offered as a segregated account, but they are not required to do so.

Additionally, because composites must include all portfolios that meet the composite definition, portfolios may be included in more than one composite. For example, if a firm maintains a large-cap growth equity composite as well as a more broadly defined large-cap equity composite, a single portfolio may qualify for inclusion in both composites.

In addition to investment mandate, objective, or strategy, criteria that may be factored into the definition of a composite include, but are not limited to, the following:

- asset class (e.g., equities, fixed income, real estate, or private equity);
- the use of specific instruments or investment techniques (e.g., derivatives, leverage, or hedging);
- targeted risk or return metrics (e.g., target tracking error or alpha); or
- investment constraints or restrictions imposed by the client (e.g., social responsibility or environmental sensitivity restrictions).

Portfolios may also be delineated by fee-paying or non-fee-paying status. Non-fee-paying portfolios do not necessarily need to be included in composites, but they may be included at the preference of the firm. Once a firm chooses to include non-fee-paying discretionary portfolios in a particular composite, that composite must include all non-fee-paying portfolios that meet the composite definition. If a firm chooses to include non-fee-paying discretionary portfolios in one composite, however, the firm is not then obligated to include all non-fee-paying discretionary portfolios in composites—the decision of whether to include or exclude non-fee-paying portfolios can be composite-specific.

Investment strategies may change over time; therefore, the manner in which a composite is defined may also change. In other words, a firm may determine that the key attributes that cause a portfolio to be representative of an investment strategy differ somewhat today from in the past and, as a result, the firm may change the requirements for assigning portfolios to a particular composite (i.e., the firm may *redefine* the composite). For example, a strategy may evolve from using derivatives on a very limited basis historically to using them extensively for more recent periods. When this occurs, the firm may determine that the use of derivatives is now essential for the strategy to be fully implemented and, therefore, the composite may be redefined to include only portfolios that allow derivatives. However, any such change must only be made on a prospective basis—changes to the manner in which a composite is defined cannot be applied retroactively in order to alter composite membership and restate performance.

EXAMPLE 6

Defining Composites

1. Composites are appropriate to use when presenting performance because they:
   - **A** exclude terminated portfolios.
   - **B** only include portfolios that performed in a similar manner.
   - **C** include all discretionary portfolios that meet the composite definition.
2. Composites must be defined:
   - **A** according to investment mandate, objective, or strategy.

B to only include portfolios that are managed to the same benchmark.

C based on the client's risk tolerance.

Solution to 1:

C is correct. Composites must include terminated portfolios for the periods in which they were managed in a discretionary manner. Additionally, portfolios included in the same composite should be expected to perform in a similar manner, but composites cannot be defined based on how the portfolios performed (i.e., portfolios cannot be excluded from composites simply because they performed differently from other members of the composite).

Solution to 2:

A is correct. Benchmarks or client risk tolerance can be considered as part of the composite definition, but they are not required elements.

5.1.1 *Discretion*

j explain the meaning of "discretionary" in the context of composite construction and, given a description of the relevant facts, determine whether a portfolio is likely to be considered discretionary

Discretion (or lack thereof) is a key determinant of whether a portfolio must be included in a composite. Generally, discretion is the ability of the firm to implement its intended investment strategy. However, there is no detailed, universal definition of discretion in the GIPS standards. Discretion must be defined by each firm that claims compliance with the GIPS standards—as a result, the specific manner in which discretion is defined will often vary from firm to firm. Each firm must document its definition of discretion in its policies and procedures and must apply the definition consistently.

Discretion is typically defined in the same manner across the entire firm (i.e., at the firm level) but it may also be defined by composite or asset class. For example, a restriction that impairs the firm's ability to manage a fixed-income portfolio (such as duration or maturity constraints) may not apply to or have any impact on the management of an equity portfolio.

When defining discretion, the firm must determine what type of client-imposed restrictions may significantly hinder the firm's ability to implement a particular investment strategy. Portfolios that do not meet the firm's definition of discretion and, consequently, are not representative of the firm's investment process are considered non-discretionary portfolios. Non-discretionary portfolios must not be included in composites. When a firm designates a portfolio as non-discretionary, the firm must maintain records supporting the rationale for the classification and the portfolio's exclusion from composites. Firms must also regularly monitor portfolios for potential changes to discretionary status (e.g., the removal or addition of a restriction) that would warrant changes to composite assignment.

Examples of client-imposed restrictions that may cause a portfolio to be classified as non-discretionary include the following:

- Restrictions on trading activities resulting from conditional client approval. If the firm is unable to freely trade a portfolio without prior approval from the client, the firm's ability to implement the intended strategy will typically be impaired.
- Restrictions on asset allocation. For example, if the firm manages a multi-asset strategy but a client restricts the firm's ability to invest in one of the standard asset classes, the restricted portfolio may not be representative of the strategy.

- Tax considerations. For example, a client may request that the firm sell underperforming securities in order to incur losses that would offset gains from the sale of other securities (i.e., tax loss harvesting). This process may require the firm to sell securities that it otherwise would not and may impede the firm's ability to implement the intended strategy.
- Limits on the purchase or sale of certain securities or types of securities. For example, if a client's portfolio holds sentimental investments that the firm is not permitted to sell, the positions may not be reflective of the intended strategy or securities that would be held by other clients.
- Cash flow requirements. For example, a client may require regular withdrawals from his or her portfolio, necessitating that the portfolio be more liquid and more heavily invested in cash or cash equivalents than a standard portfolio managed to the strategy.
- Legal restrictions. For example, a firm manages a global strategy, but local laws to which a client is subject prohibit investing in certain markets to which the strategy would typically have exposure.

Most client-imposed restrictions, however, are not reason to automatically classify a portfolio as non-discretionary. The firm must determine if the restriction will significantly hinder the implementation of the intended strategy to a degree that the portfolio would be materially different from others managed to the strategy. If the implementation of the strategy is impacted, the firm must then determine whether the manner in which the restricted portfolio deviates from an unrestricted portfolio represents a new variation of the existing strategy or if the restricted portfolio is truly non-discretionary and is not representative of any other strategy offered by the firm.

For example, if a portfolio is restricted from purchasing securities issued by companies that generate a significant portion of their revenues from the sale of alcohol, tobacco, or firearms (i.e., "sin stocks"), the firm could consider each of the following options:

1. Determine that the restrictions *do not* materially impact the implementation of the investment strategy (e.g., the firm does not typically invest in any securities that would be subject to the restriction) and include the portfolio in the standard composite with other portfolios managed to the strategy.
2. Determine that the restrictions *do* materially impact the implementation of the investment strategy and that following them creates an alternate variation of the strategy that warrants the creation of a new composite.
3. Determine that the restrictions *do* materially impact the implementation of the investment strategy to the extent that they prevent the firm from implementing the intended strategy; therefore, the portfolio would be classified as non-discretionary and excluded from all composites.

Each of these options may be appropriate depending on the nature of the investment strategy and the manner in which the firm typically manages portfolios. When possible, firms are encouraged to consider classifying restricted portfolios as discretionary and grouping them in dedicated composites with other portfolios with similar restrictions. Note, however, that it is not appropriate to group portfolios with various restrictions into a single broadly defined "restricted composite," because the restrictions on each portfolio may be materially different and the aggregate returns of such a composite are unlikely to be meaningful.

Alternatively, if the aspects of the portfolio that cause it to be considered non-discretionary—for example, certain securities that the firm is restricted from selling—can be isolated to a particular segment of the portfolio, then that portion of the portfolio may be classified as "unmanaged" or "unsupervised" and segregated

from the remaining, discretionary portion of the portfolio. Performance could then be calculated independently for the discretionary segment of the portfolio so that it could continue to be included in a composite.

EXAMPLE 7

Discretion

1 Discretion is the ability to:

 A trade an investment portfolio without pre-authorization.

 B implement the client's intended investment strategy.

 C implement the firm's intended investment strategy.

2 A firm manages intermediate-duration fixed-income portfolios. The composite established for these portfolios has a target duration limit of six years. The firm recently accepted a new portfolio for which the client requested a duration target of nine years. Which of the following is the most appropriate option for the firm?

 A Classify the portfolio as non-discretionary because it does not meet the duration requirement of the composite.

 B Redefine the intermediate-duration composite to allow for the inclusion of portfolios with a target duration of nine years, and include the new portfolio in the standard composite.

 C Create a new composite for fixed-income portfolios with a duration target of nine years.

3 A firm that manages large-cap growth portfolios takes on a new client who requests that no tobacco company stocks be purchased for the portfolio. Which of the following is an acceptable approach for the firm to consider?

 I. Classify the portfolio as non-discretionary.

 II. Create a new composite defined to include socially responsible large-cap growth portfolios.

 III. Include the portfolio in the same composite as portfolios that do not have tobacco restrictions.

 A I only

 B II or III only

 C Either I, II or III

Solution to 1:

C is correct. Discretion, under the GIPS standards, is the ability of the firm to implement its intended investment strategy

Solution to 2:

C is correct. The GIPS standards encourage firms to include portfolios with various restrictions in different composites, where possible, rather than classifying them as non-discretionary. Although the portfolio does not meet the definition of the existing composite, the difference in target duration likely does not warrant classifying the portfolio as non-discretionary. Additionally, redefining the composite would likely not be an appropriate option because the longer-duration target would appear to be a material difference in investment mandate. Changes to composite definitions should be rare and should be used only when minor changes occur in the investment strategy or process.

Solution to 3:

C is correct, because any of the three options would be acceptable. The GIPS standards recommend that firms classify restricted portfolios as discretionary and include them in composites when possible, so II or III would likely be the preferred options. Depending on whether the restriction has a material impact on the way the portfolio is managed, it may be more appropriate for the firm to create a dedicated composite for portfolios with tobacco restrictions.

5.1.2 *Minimum Asset Level*

Another element that can be considered when defining discretion is portfolio size. In some instances, a firm may determine that a portfolio must maintain a certain minimum amount of assets in order for the strategy to be implemented as intended. If so, the firm may establish a policy that precludes portfolios below that minimum asset level from being included in a composite. Because a minimum asset level represents the size below which the intended investment strategy cannot be fully implemented, portfolios below the minimum asset level are considered non-discretionary with respect to that composite.

Minimum asset levels are likely to vary from strategy to strategy. Some composites may have a minimum while others do not, or the minimum asset level can differ from one composite to another. For example, one composite may have a minimum of $1 million while another has a minimum of $10 million, if the firm deems that the different levels are warranted based on the strategies.

Setting a minimum asset level for inclusion in a composite is optional and, in some instances, may not be appropriate. If the firm can implement the composite strategy for a portfolio of any size (e.g., when the strategy invests in liquid securities that can be readily bought and sold in small increments), then establishing a minimum asset level for inclusion in the composite would not be justified.

If a firm establishes a minimum asset level for a composite, it must document policies addressing how portfolios will be treated if they fall below the minimum. As an example, the firm may determine that the minimum asset level required to *add* a portfolio to a composite is $1 million but that a portfolio will not be *removed* from a composite unless its assets fall below $900,000. Additionally, the assessment of whether a portfolio has fallen below the minimum asset level should be based on beginning-of-period values, not ending values, in order to capture in composites the period in which the portfolio dropped below the minimum and to avoid excluding periods of poor performance.

The minimum asset level for inclusion in a composite may be changed, but only prospectively (on a forward-looking basis). Any changes to the composite minimum asset level must not be applied retroactively in order to revise composite membership and restate performance. If a minimum asset level is established for inclusion in a particular composite, it must be disclosed in the related GIPS Composite Report, and changes to the minimum asset level must also be disclosed.

Tangentially, a firm may establish a minimum amount of assets that a client is required to invest prior to opening a portfolio (a "marketing minimum"), but the firm may have a different or no minimum asset level for inclusion in composites. Although the firm may desire a certain asset commitment from new clients, that does not necessarily mean that the investment strategy cannot be implemented with a smaller amount of assets.

5.1.3 *Composite Construction*

The portfolios included in a composite may change over time. Common examples include the following:

- new portfolios open and must be added to composites,

- portfolios terminate and must be removed from composites prospectively, and
- portfolios change their investment objectives to a degree that warrants transitioning them to a different composite (or, if discretion has been lost, to no composite at all).

Firms must address each of these scenarios in their policies and procedures and specify how and when portfolios will be added to or removed from composites. Once established, policies related to composite membership must be followed consistently.

The firm's policy must address how new portfolios that come under management will be treated. The general requirement under the GIPS standards is that new portfolios must be included in composites *on a timely and consistent basis*. It is up to each firm to determine what "timely" means in the context of its composites. The timeline for including new portfolios in composites should reflect the amount of time generally required to invest a new portfolio to the given strategy.

Composites must include only portfolios that are managed for the *full performance measurement period* for which the composite return is calculated. Portfolios that are not managed for the full performance measurement period must not be included in the composite for that period. Generally, firms calculate composite performance on a monthly basis, so a full performance measurement period would typically be considered a full month. Note that a full performance measurement period is not necessarily the time period for which performance is presented; rather, it reflects the intervals at which performance is calculated.

Typical policies that a firm may establish would include new portfolios in a particular composite:

- at the beginning of their first full month under management,
- following the first full month under management,
- following two full months under management,
- following the first full quarter under management, or
- potentially a longer period, depending on the specific strategy.

Consider a policy in which a firm includes new portfolios in composites following the first full month under management and assume a new portfolio opens on 25 April. In this scenario, April is a partial month and thus is not considered the first full month under management. The first full month is May, so the new portfolio will be eligible for inclusion in composites beginning in June.

The appropriate timing for a portfolio to be included in a composite can vary based on the particular strategy and the manner in which the firm manages portfolios. Although a firm may establish a standardized policy across the firm, it may be more appropriate for a firm to have separate policies for different strategies or composites. For example, if a strategy invests in less liquid securities and, therefore, takes longer for the firm to implement, a longer period before new portfolios are included in the composite associated with that strategy may be warranted. It would be inappropriate, however, for a firm to establish a policy that arbitrarily delays composite inclusion for strategies that are more liquid and for which a portfolio typically would be representative of the strategy in a shorter period.

With regard to the removal of terminated portfolios, portfolios that were previously under the discretionary management of the firm but have closed or are in the process of closing must be removed from composites prospectively. However, their historical performance must remain in composites up to the last full measurement period that the portfolio was under management and for which the firm had discretion. For a firm that calculates composite performance on a monthly basis, the last full measurement period is the last full month that a terminated portfolio was

under discretionary management. Once the firm receives notification of a pending termination, its ability to manage the portfolio freely is generally lost, and discretion would be considered revoked.

For example, if a firm receives notification on 19 May that a client intends close his or her portfolio and withdraw the assets as of 31 May, the firm effectively no longer has full discretion over the portfolio as of the date of notification (19 May). If the firm calculates composite performance monthly, the last full measurement period during which the firm had discretion is the month of April. So, the portfolio will remain in the composite until the end of April but will be removed from the composite for May and all subsequent periods.

If a portfolio changes its investment objective or strategy and no longer meets the composite definition, it will effectively be treated as a terminated portfolio with respect to the composite(s) in which it was included. Concurrently, it becomes a new portfolio with respect to any new composite(s) to which it is added. For example, assume that a firm calculates composite performance using monthly measurement periods and has a policy of including new portfolios in composites at the beginning of their first full month under discretionary management and a policy of removing terminated portfolios from composites at the end of their last full month under discretionary management. If the firm receives notification from a client on 12 September specifying a wish to change the portfolio's investment strategy from investing in fixed income to investing in equities:

- The portfolio will be eligible for inclusion in the fixed income composite through the end of August, because August will be the last full month that the portfolio is managed to the fixed-income strategy.
- The portfolio will not be managed exclusively to either strategy during the month of September, so it will be excluded from all composites for that month.
- October will be the first full month that the portfolio is managed to the equity strategy. Therefore, the portfolio will be eligible for inclusion in the equity composite beginning in October, following the standard inclusion policy for new portfolios.

Ideally, a firm's composites should be constructed in a manner that minimizes the movement of portfolios into, out of, or between composites. The GIPS standards only offer two potential reasons why a portfolio would be moved from one composite to another:

1. because of documented client-directed changes to a portfolio's investment mandate, objective, or strategy; or
2. if the redefinition of the composite makes it appropriate.

If a client requests a change in mandate that impacts the portfolio's investment objective or strategy, then a change in composite assignment may be justified. However, changes to portfolios resulting from tactical investment decisions made by the investment manager that are not directed by the client (e.g., a decision to shift asset allocation exposures based on market conditions) are not an appropriate basis for changing composite assignments. To address this issue, the GIPS standards specifically prohibit firms from moving portfolios into or out of composites as a result of the firm's tactical changes. This prohibition prevents firms from making tactical adjustments to select portfolios in order to opportunistically modify composite membership. If the portfolio qualified for a particular composite prior to the manager's tactical change, it should continue to qualify for the same composite after the change.

The second potential reason why a portfolio could be moved from one composite to another is if the firm changes the rules that govern which portfolios will be assigned to a composite (i.e., the composite is redefined). Changes to composite definitions should be infrequent; rather, changes to an investment strategy should typically result

in the creation of a new composite. In some instances, however, it may be appropriate to alter a composite definition to a degree, as long as the composite's historical track record is still representative of the strategy going forward. For example, a composite for a strategy that generally invests a small portion of its assets in foreign securities may include portfolios that allow investing in foreign securities as well as those that do not, as long as the ability to invest in foreign securities is not considered a material aspect of the investment strategy. If over time the strategy begins to invest more heavily in foreign securities, however, the firm may decide that the ability to invest in foreign securities is now a vital aspect of implementing the investment strategy. As such, the firm may elect to redefine the composite prospectively in order to include only portfolios that allow investing in foreign securities. All portfolios that prohibit foreign securities will be removed from the composite from that point forward. In all instances, changes to composite definitions must not be applied retroactively (i.e., the historical composite membership and performance cannot be altered as a result of a redefinition). If a composite is redefined, this fact is required to be disclosed in GIPS Reports for the specific composite.

In all cases where portfolios are removed from composites or moved from one composite to another, the historical performance of the portfolio must remain with the original composite.

5.1.4 *Significant Cash Flows*

Another element that can potentially affect composite construction is the treatment of portfolios that experience significant cash flows. Firms are not required to establish policies related to the treatment of significant cash flows. However, if a firm chooses to establish such a policy, the firm must define "significant" on an *ex ante* (before the fact), composite-specific basis and must consistently follow the policy. The size of cash flow to be considered significant must be determined as either (1) a specific monetary amount or (2) a percentage of portfolio assets. The determination of significance should be based primarily on the liquidity of the asset class and how quickly cash can be invested or raised when needed. No other criteria, such as the impact or lack of impact of the significant cash flow on a specific portfolio's performance, may be considered.

Like any of a firm's policies for complying with the GIPS standards, policies related to significant cash flows—including the firm's definition of significance—may change on a prospective basis. However, changes to a firm's significant cash flow policy cannot be applied retroactively.

When a significant cash flow occurs, a firm may establish policies for taking one of the following actions:

1 removing the portfolio experiencing the flow from composites for a specified period of time;
2 using temporary new accounts to manage the impact of significant cash flows; or
3 doing nothing, because firms are not required to establish significant cash flow policies.

A firm that establishes a policy for removing portfolios from a particular composite because of significant cash flows must:

- consistently remove from the composite all portfolios that experience a significant cash flow, and
- re-include portfolios following a significant cash flow according to the firm's established policy.

If a firm establishes a policy of removing portfolios that experience significant cash flows from composites that include a limited number of portfolios, the firm risks creating a break in their track record. If a composite includes only a single portfolio and that portfolio is removed from the composite because of a significant cash flow policy, the performance history of the composite ends. If the portfolio is subsequently re-included in the same composite, the composite must be reactivated but, when creating the GIPS Composite Report, performance must be presented both before and after the break. Performance before and after the break must not be linked. This results in a shorter continuous investment track record for the composite and also makes for a potentially confusing performance presentation.

As an alternative to temporarily removing from composites portfolios that experience significant cash flows, the GIPS standards recommend that firms use temporary new accounts. A **temporary new account** is an accounting mechanism created for temporarily holding client-directed external cash flows until they are either invested according to the composite strategy or disbursed. If a firm chooses to implement a policy for using temporary new accounts to remove the effect of a significant cash flow on a portfolio, the firm must establish policies on an *ex ante*, composite-specific basis. When a significant cash flow occurs, the firm will direct the external cash flow to the temporary new account. For contributions, the assets will remain in the temporary new account until they are invested and reflect the investment mandate for the portfolio. For withdrawals, securities will remain in the temporary new account until they are liquidated or otherwise distributed to the client. Temporary new accounts should be treated as a non-discretionary portfolio and, therefore, must not be included in any composites.

EXAMPLE 8

Composite Construction

1 A composite return reflects the performance of:

- **A** all portfolios managed by the firm, regardless of investment strategy.
- **B** all discretionary portfolios that meet the composite definition.
- **C** all discretionary and non-discretionary portfolios that meet the composite definition.

2 Criteria that may be factored into the definition of a composite include differences in:

- **A** investment management fees charged.
- **B** legal structure.
- **C** the ability to use derivatives.

3 A properly constructed composite:

- **A** excludes terminated portfolios.
- **B** includes new portfolios on a timely and consistent basis.
- **C** includes either segregated accounts or pooled funds, but not both.

4 Options provided in the GIPS standards for addressing significant cash flows include:

- **A** temporarily removing portfolios from composites that experience external cash flows that have a material impact on performance.

B temporarily removing portfolios from composites that experience external cash flows that exceed the firm's definition of a large cash flow.

C moving assets related to the external cash flow to a temporary new account.

Solution to 1:

B is correct. Composites must be defined based on investment mandate, objective, or strategy. Composites can include only discretionary portfolios.

Solution to 2:

C is correct. A composite definition may consider the ability to use certain instruments, such as derivatives. Differences in legal structure or fees charged to the underlying portfolios should not be used as criteria for defining composites. Differences in portfolio type or legal structure could lead to differences in how a strategy is implemented, which could warrant defining separate composites to capture the different variations of the strategy, but differences in legal structure alone should not be a primary consideration.

Solution to 3:

B is correct. New portfolios must be included in composites on a timely and consistent basis. Terminated portfolios must remain in composites during the periods when they were under discretionary management. A composite may include both segregated accounts and pooled funds.

Solution to 4:

C is correct. The use of temporary new accounts is one of the options outlined in the GIPS standards for handling significant cash flows. Firms may also establish a significant cash flow policy for temporarily removing portfolios that experience significant cash flows, but the policy must be based on the size of the cash flow, not the degree to which performance is impacted. Also, a significant cash flow is different from a large cash flow. Large cash flows should not initiate the removal of portfolios from composite; instead, they should trigger the portfolio to be valued on the date of the cash flow.

5.2 Composite Return Calculation

The GIPS standards allow firms to calculate composite time-weighted returns using one of three methods:

- Beginning Assets Weighting
- Beginning Assets Plus Weighted Cash Flows
- Aggregate Return

Each of the methods is described in the following subsections.

5.2.1 *Composite Time-Weighted Returns*

A composite time-weighted return reflects the average return of a single monetary unit invested to the composite strategy. It is calculated by asset-weighting the underlying portfolio returns, either by weighting the portfolios using either beginning-of-period values or by using a method that reflects both the beginning-of-period values and external cash flows. Composite time-weighted returns must be calculated at least monthly for all composites other than private market investment composites. Private market investment composites must be calculated at least quarterly.

Beginning Assets Weighting Method The **Beginning Assets Weighting Method** is a composite return calculation method that weights the underlying portfolio returns using beginning-of-period values. The formula is as follows:

$$R_t^{BV} = \frac{\sum_{k=1}^{K}(BV_{k,t} \times r_{k,t})}{\sum_{k=1}^{K} BV_{k,t}}$$

where

R_t^{BV} = asset-weighted return for the composite for period t
k = number of portfolios in the composite at the beginning of period t
$BV_{k,t}$ = beginning value of portfolio k for period t
$r_{k,t}$ = return of portfolio k for period t

Beginning Assets Plus Weighted Cash Flows Method The **Beginning Assets Plus Weighted Cash Flows Method** improves on the Beginning Assets Weighting method by factoring external cash flows that occurred during the period into the calculations. Each external cash flow is applied its proportionate weight during the period based on the day on which the cash flow occurred.

The weighting factor for each external cash flow is calculated using the same methodology as in the Modified Dietz method, as follows:

$$w_{i,k,t} = \frac{D_t - D_{i,k,t}}{D_t}$$

where

$w_{i,k,t}$ = weight of external cash flow i in portfolio k in period t, assuming the external cash flow occurred at the end of the day
D_t = total number of calendar days in period t
$D_{i,k,t}$ = number of calendar days from the beginning of period t to date of external cash flow i in portfolio k

The Beginning Assets Plus Weighted Cash Flows composite return can be calculated as follows:

$$R_t^{BV+CF} = \frac{\sum_{k=1}^{K}\left\{\left[BV_{k,t} + \sum_{i=1}^{i_k}(CF_{i,k,t} \times w_{i,k,t})\right] \times r_{k,t}\right\}}{\sum_{k=1}^{K}\left[BV_{k,t} + \sum_{i=1}^{I_k}(CF_{i,k,t} \times w_{i,k,t})\right]}$$

where

R_t^{BV+CF} = asset-weighted return for the composite for period t
$BV_{k,t}$ = beginning value of portfolio k for period t
i_k = number of external cash flows in portfolio k
$CF_{i,k,t}$ = ith external cash flow in portfolio k for period t
$w_{i,k,t}$ = weight of external cash flow i in portfolio k for period t
$r_{k,t}$ = return for portfolio k for period t

Aggregate Return Method An alternate approach is to calculate the composite return using the Aggregate Return method. The **Aggregate Return Method** combines (aggregates) all the assets and external cash flows for the portfolios included in the composite to calculate the composite return in the same manner as an individual portfolio. Unlike the other methods, the Aggregate Return method does not use returns calculated at the portfolio level—it calculates the composite return independent from the returns of the underlying portfolios.

The Aggregate Return method composite return can be calculated as follows:

$$R_t^{AM} = \frac{EV_t - BV_t - \sum CF_{i,t}}{BV_t + \sum (CF_{i,t} \times w_{i,t})}$$

where

R_t^{AM} = composite return calculated using the Aggregate Return method for period t

EV_t = total ending value of the composite for period t

BV_t = total beginning value of the composite for period t

i = number of external cash flows in period t

$CF_{i,t}$ = value of external cash flow i in period t

$w_{i,t}$ = weight of external cash flow i in period t (assuming the external cash flow occurred at the end of the day), as calculated according to the following formula:

$$w_{i,t} = \frac{D_t - D_i}{D_t}$$

where

D_t = the total number of calendar days in period t

D_i = the number of calendar days from the beginning of period t to the date of external cash flow i

In the following examples, we illustrate the calculation of a monthly return for a composite consisting of three portfolios (Portfolio A, Portfolio B, and Portfolio C). We separately calculate the return for the month using the three different approaches: the Beginning Assets Weighting, the Beginning Assets Plus Weighted Cash Flows, and the Aggregate Return methods. The returns and beginning-of-period values for each portfolio are noted in the examples. Additionally, Portfolio A had a cash inflow of \$48,000 on the 15th day of the month, Portfolio B had a cash inflow of \$25,000 on the 18th day of the month, and Portfolio C experienced a cash outflow of \$125,000 on the 3rd day of the month. Cash flows are assumed to occur at the end of the day, and large cash flows are defined as 10% of the portfolio's beginning-of-month value. There are 30 days in the month.

CALCULATING COMPOSITE TIME-WEIGHTED RETURNS

Beginning Assets Weighting Method

Portfolio	BV	Portfolio Weight	Portfolio Return	Weighted Return
A	\$525,000	15.00%	8.01%	1.20%
B	\$875,000	25.00%	5.88%	1.47%
C	\$2,100,000	60.00%	5.19%	3.11%
Total	\$3,500,000	100.00%		5.79%

$$R_{BV} = \frac{(525{,}000 \times 0.0801) + (875{,}000 \times 0.0588) + (2{,}100{,}000 \times 0.0519)}{(525{,}000 + 875{,}000 + 2{,}100{,}000)}$$

$$R_{BV} = \frac{42{,}052.50 + 51{,}450 + 108{,}990}{3{,}500{,}000}$$

$$R_{BV} = \frac{202{,}492.50}{3{,}500{,}000} = 5.79\%.$$

Beginning Assets Plus Weighted Cash Flows Method

First, we must calculate the weight of each external cash flow, keeping in mind that there are 30 days in the month.

- Portfolio A had a cash inflow of $48,000 on the 15th day of the month.
  - Cash flow weight = (30 – 15)/30 = 0.50
- Portfolio B had a cash inflow of $25,000 on the 18th day of the month.
  - Cash flow weight = (30 – 18)/30 = 0.40
- Portfolio C had a cash outflow of $125,000 on the 3rd day of the month.
  - Cash flow weight = (30 – 3)/30 = 0.90

Then, calculate the weighted cash flows by multiplying the cash flow weight by the amount of the cash flow.

- Portfolio A = 0.50 × $48,000 = $24,000
- Portfolio B = 0.40 × $25,000 = $10,000
- Portfolio C = 0.90 × –$125,000 = –$112,500

Next, add the weighted cash flows to the portfolio beginning values.

- Portfolio A = $24,000 + $525,000 = $549,000
- Portfolio B = $10,000 + $875,000 = $885,000
- Portfolio C = –$112,500 + $2,100,000 = $1,987,500

Multiply each portfolio's beginning value plus weighted cash flows by that portfolio's monthly return, sum those values, then divide the total by the composite's beginning value plus weighted cash flows.

- Composite beginning value plus weighted cash flows = $549,000 + $885,000 + $1,987,500 = $3,421,500

Portfolio	BV	Cash Flows	CFW	BV + Wtd CFs	BV + Wtd CF Weight	Portfolio Return	Weighted Return
A	$525,000	$48,000	0.50	$549,000	16.05%	8.01%	1.29%
B	$875,000	$25,000	0.40	$885,000	25.87%	5.88%	1.52%
C	$2,100,000	($125,000)	0.90	$1,987,500	58.09%	5.19%	3.01%
Total	$3,500,000	($52,000)		$3,421,500	100.00%		5.82%

$$R_{BV+CF} = \frac{(549{,}000 \times 0.0801) + (885{,}000 \times 0.0588) + (1{,}987{,}500 \times 0.0519)}{3{,}421{,}500}$$

$$= \frac{43{,}974.90 + 52{,}038 + 103{,}151.25}{3{,}421{,}500}$$

$$= \frac{199{,}164.15}{3{,}421{,}500} = 5.82\%$$

Aggregate Return Method

To apply the Aggregate Return method, we must know the end-of-month value for each portfolio. Assume the following:

- Portfolio A ending value = $617,000
- Portfolio B ending value = $952,000
- Portfolio C ending value = $2,078,000

Then, as with the Beginning Assets Plus Weighted Cash Flows method, we must calculate the weight of each external cash flow, keeping in mind that there are 30 days in the month.

- Portfolio A = (30 − 15)/30 = 0.50
- Portfolio B = (30 − 18)/30 = 0.40
- Portfolio C = (30 − 3)/30 = 0.90

Calculate the weighted cash flows by multiplying the cash flow weight by the amount of the cash flow.

- Portfolio A = 0.50 × $48,000 = $24,000
- Portfolio B = 0.40 × $25,000 = $10,000
- Portfolio C = 0.90 × –$125,000 = –$112,500

Sum the totals and enter into the Aggregate Return method formula:

$$R_t^{AM} = \frac{EV_t - BV_t - \sum CF_{i,t}}{BV_t + \sum (CF_{i,t} \times w_{i,t})}$$

Portfolio	BV	EV	Cash Flows	CF Weight	Wtd CFs
A	$525,000	$617,000	$48,000	0.50	$24,000
B	$875,000	$952,000	$25,000	0.40	$10,000
C	$2,100,000	$2,078,000	($125,000)	0.90	($112,500)
Total	$3,500,000	$3,647,000	($52,000)		($78,500)

$$R_{AM} = \frac{\left[3{,}647{,}000 - 3{,}500{,}000 - (-52{,}000)\right]}{\left[3{,}500{,}000 + (-78{,}500)\right]} = 5.82\%$$

5.2.2 *Composite Money-Weighted Returns*

Unlike time-weighted returns, composite money-weighted returns cannot be calculated by asset-weighting the returns of the underlying portfolios. Instead, composite money-weighted returns must be calculated by aggregating all of the assets and external cash flows for those portfolios included in the composite. The composite return is calculated as if the composite were one portfolio.

The composite money-weighted return can be calculated using an internal rate of return (IRR), which equates the present value of the aggregate cash outflows for all portfolios included in the composite with the present value of the aggregate cash inflows for all portfolios included in the composite.

The formula for calculating the composite IRR is the same used for calculating the portfolio IRR:

$$0 = \sum_{i=0}^{I} CF_i (1 + r_{IRR})^{-\left(\frac{t_i}{365}\right)}$$

where

CF_i = external cash flow i

i = number of external cash flows during the measurement period

r_{IRR} = annualized internal rate of return

t_i = number of calendar days between the beginning of the measurement period and the date of external cash flow i

Alternatively, a composite money-weighted return can be calculated using the Aggregate Return method, as described earlier. The difference between using the Aggregate Return method to calculate a money-weighted return rather than a time-weighted return is that the money-weighted return is calculated as a single return for the entire period. When using the Aggregate Return method to calculate a time-weighted composite return, periodic returns are calculated on at least a monthly basis and between all sub-periods when large cash flows occur, and then sub-period returns are geometrically linked together. The geometric linking of sub-period returns calculated using the Aggregate Return method effectively converts the money-weighted returns into time-weighted returns.

In the following, we illustrate the calculation of the money-weighted return for a composite consisting of three portfolios (Portfolio A, Portfolio B, and Portfolio C) using the Aggregate Return method. The period in the example is a 30-day month, but the same methodology applies regardless of the time period covered.

The beginning and ending values for the three portfolios are as follows:

Portfolio	BV	EV
A	$1,112,375	$1,325,000
B	$1,432,765	$1,513,225
C	$5,249,875	$5,525,000

Each portfolio also experienced external cash flows during the period. Cash flows are assumed to occur at the end of the day.

- Portfolio A had a cash inflow of $50,000 on the 6th day of the month.
- Portfolio B had a cash outflow of $75,000 on the 15th day of the month.
- Portfolio C had a cash outflow of $200,000 on the 24th day of the month.

Calculate the weight of each external cash flow, keeping in mind that there are 30 days in the period.

- Portfolio A = (30 – 6)/30 = 0.80
- Portfolio B = (30 – 15)/30 = 0.50
- Portfolio C = (30 – 24)/30 = 0.20

Calculate the weighted cash flows by multiplying the cash flow weight by the amount of the cash flow.

- Portfolio A = 0.80 × $50,000 = $40,000
- Portfolio B = 0.50 × –$75,000 = –$37,500
- Portfolio C = 0.20 × –$200,000 = –$40,000

Sum the totals and enter the variables into the Aggregate Return method formula:

$$R_t^{AM} = \frac{EV_t - BV_t - \sum CF_{i,t}}{BV_t + \sum (CF_{i,t} \times w_{i,t})}$$

Calculating Composite Money-Weighted Return (Aggregate Return Method)

Portfolio	BV	EV	Cash Flows	CF Weight	Wtd CFs
A	$1,112,375	$1,325,000	$50,000	0.80	$40,000
B	$1,432,765	$1,513,225	($75,000)	0.50	($37,500)

(continued)

(Continued)

Portfolio	BV	EV	Cash Flows	CF Weight	Wtd CFs
C	$5,249,875	$5,525,000	($200,000)	0.20	($40,000)
Total	$7,795,015	$8,363,225	($225,000)		($37,500)

$$R_{AM} = \frac{\left[8{,}363{,}225 - 7{,}795{,}015 - (-225{,}000)\right]}{\left[7{,}795{,}015 + (-37{,}500)\right]} = 10.23\%$$

EXAMPLE 9 COMPOSITE RETURN CALCULATIONS

1 Given a composite consisting of the following portfolios, what is the time-weighted composite return for a 30-day month using the Beginning Assets Weighting method?

Portfolio	Beginning Value	Ending Value	Cash Flows	Day of Flow	Portfolio Return
A	101,432	180,226	75,000	15	2.73%
B	53,478	56,243	0	0	5.17%
C	78,698	57,113	–25,000	5	4.58%
D	137,698	192,104	50,000	25	2.46%

A 3.12%
B 3.37%
C 3.73%

2 For the same composite, what is the time-weighted composite return for a 30-day month using the Beginning Assets Plus Weighted Cash Flows method?

A 3.22%
B 3.37%
C 3.41%

3 For the same composite, what is the time-weighted composite return for a 30-day month using the Aggregate Return method? Assume the firm defines a large cash flow as 10% or greater of the portfolio or composite's beginning-of-month value, and the composite's ending value on each day in the period was as noted below, inclusive of any cash flows (i.e., cash flows are assumed to occur at the end of the day).

Day of Month	Composite Ending Value	Cash Flow
Day 0	371,306	0
Day 5	342,184	–25,000
Day 15	424,815	75,000
Day 25	483,396	50,000
Day 30	485,686	0

A 3.22%

B 3.37%

C 3.52%

Solution to 1:

B is correct. The time-weighted composite return using the Beginning Assets Weighting method is 3.37%.

Portfolio	BV	EV	Cash Flows	Day of Flow	Portfolio Return	Composite Weight	Weighted Return
A	101,432	180,226	75,000	15	2.73%	27.32%	0.75%
B	53,478	56,243	0	0	5.17%	14.40%	0.74%
C	78,698	57,113	−25,000	5	4.58%	21.19%	0.97%
D	137,698	192,104	50,000	25	2.46%	37.08%	0.91%
Total	371,306	485,686	100,000			100.00%	3.37%

Solution to 2:

A is correct. The time-weighted composite return using the Beginning Assets Plus Weighted Cash Flows method is 3.22%.

Portfolio	BV	EV	Cash Flows	Day of Flow	CF Weight	BV + Wtd CFs	BV + Wtd CF Weight	Portfolio Return	Weighted Return
A	101,432	180,226	75,000	15	0.50	138,932	31.13%	2.73%	0.85%
B	53,478	56,243	0	0	0.00	53,478	11.98%	5.17%	0.62%
C	78,698	57,113	−25,000	5	0.17	74,531	16.70%	4.58%	0.77%
D	137,698	192,104	50,000	25	0.83	179,365	40.19%	2.46%	0.99%
Total	371,306	485,686	100,000			446,306	100.00%		3.22%

Solution to 3:

C is correct. The time-weighted composite return using the Aggregate Return method is 3.52%.

Note that although the cash flow that occurred on Day 5 was greater than 10% of Portfolio C's beginning-of-month value, it was less than 10% of the composite's total beginning-of-month value; therefore, the composite is not valued on that date using the Aggregate Return method. Instead, the cash flow that occurred on Day 5 has to be factored into the Sub-period 1 calculation and weighted for the fact that it occurred on the 5th day of the 15-day sub-period.

Sub-period 1 (R_{S1}) = Day 1 to Day 15

Sub-period 2 (R_{S2}) = Day 16 to Day 25

Sub-period 3 (R_{S3}) = Day 26 to Day 30

$$R_{s1} = \frac{424{,}815 - 371{,}306 - (25{,}000 + 75{,}000)}{371{,}306 + \left[-25{,}000 \times \left(\frac{15-5}{15}\right)\right]} = 0.989\%$$

$$R_{s2} = \frac{483{,}396 - 424{,}815 - 50{,}000}{424{,}815} = 2.020\%$$

$$R_{s3} = \frac{485{,}686 - 483{,}396}{483{,}396} = 0.474\%$$

$$R_t = \left[(1 + 0.989\%) \times (1 + 2.020\%) \times (1 + 0.474\%) - 1\right] = 3.52\%$$

5.3 Composite Reporting

It is not enough for a firm to meet the requirements of the GIPS standards with respect to input data, calculating returns, and constructing composites. To claim compliance, a firm must also meet the reporting requirements of the GIPS standards. Doing so requires the firm to create and distribute GIPS Reports that satisfy the requirements of the GIPS standards.

As noted previously, a GIPS Report produced by a firm may be specific to a composite (a GIPS Composite Report) or a pooled fund (a GIPS Pooled Fund Report). The detailed information that must be included in the GIPS Report is then stipulated based on the return measure that the firm determines will be presented for the particular composite or pooled fund. As a result, separate sub-classifications and requirements are outlined in the GIPS standards for composites and pooled funds that present TWR or MWR, with the different reports being referred to as follows:

- Composite Time-Weighted Return Reports,
- Composite Money-Weighted Return Reports,
- Pooled Fund Time-Weighted Return Reports, and
- Pooled Fund Money-Weighted Return Reports.

This section of the reading focuses primarily on GIPS Composite Time-Weighted Return Reports, because they are the type of GIPS Report most commonly produced by firms. However, an analyst should be aware of the different types of GIPS Reports and why one may be more appropriate to use than another in a given situation.

A firm that manages limited distribution pooled funds may elect to not create GIPS Pooled Fund Reports and to instead provide to prospective limited distribution pooled fund investors a GIPS Composite Report for the composite in which the pooled fund is included. If a firm decides to produce and distribute GIPS Pooled Fund Reports, however, it is important to determine which type of GIPS Report is most appropriate to provide in a particular situation. The key question to ask is whether investment in the specific fund is being offered, or if the firm is selling the strategy more generally without concern for the investment vehicle through which the strategy may be delivered. If the pooled fund itself is being sold, then a GIPS Pooled Fund Report will likely be more appropriate to provide. However, if the strategy is being offered through a separate account or investment vehicle other than the specific fund (or if the delivery mechanism is not known at the time when the presentation is made), then a GIPS Composite Report will likely be more appropriate.

Additionally, a firm may elect to calculate only time-weighted returns for its composites and pooled funds, because presenting a money-weighted return is optional. However, if the firm determines that it meets the criteria for presenting an MWR and that the MWR is more appropriate for a particular composite or pooled fund, the person responsible for producing GIPS Reports related to that product must be aware of this decision in order to ensure that that MWR is consistently included in the applicable GIPS Reports and that all disclosure and reporting requirements are adhered to.

All GIPS Reports, regardless of whether the GIPS Report relates to a composite or pooled fund or presents TWR or MWR, consist of two primary elements: *data* and *disclosures*.

- *Data* includes performance information related to the composite or pooled fund and related statistics.
- *Disclosures* allow firms to elaborate on the data provided in the GIPS Report and give the reader the proper context in which to understand the performance.

This section of the reading addresses both of these elements and the requirements as they relate to a GIPS Composite Time-Weighted Return Report.

5.3.1 *Data*

At minimum, GIPS Composite Time-Weighted Return Reports are required to include the following data points:

- composite performance results for particular time periods;
- the total return for the benchmark that reflects the investment strategy or mandate represented by the composite for each annual period and for all other periods for which composite returns are presented;
- the number of portfolios in the composite as of each annual period end, unless the composite contains five or fewer portfolios at period end;
- the composite assets as of each annual period end;
- the total firm assets as of each annual period end;
- a measure of internal dispersion for each annual period; and
- for composites for which monthly composite returns are available, the three-year annualized ex post standard deviation of both the composite and the benchmark as of each annual period end.

Some of these required elements require further explanation and are addressed here in more detail.

Composite Performance Initially, GIPS Composite Time-Weighted Return Reports must include annual composite returns that meet the requirements of the GIPS standards for at least five years or (if the composite has been in existence less than five years) for the period since the composite inception. Subsequently, an additional year of annual composite returns must be presented following each year end, building up to a minimum of 10 years of GIPS-compliant performance. Firms are also encouraged to present more than 10 years of annual performance in GIPS Reports.

Generally, the GIPS standards require GIPS Composite Time-Weighted Return Reports to include results for full annual periods. In certain instances, however, partial-year returns must also be presented. Specifically, for composites with an initial period that is less than a full year, returns must be presented from inception through the initial annual period end. For terminated composites, returns from the last annual period end through the termination date must be presented. Additionally, if a composite were to temporarily lose all of its members, performance must be presented for periods before and after the break, with the break in performance clearly shown. Performance prior to a break must not be linked to performance after the break.

Internal Dispersion **Internal dispersion** measures the spread of the annual portfolio returns of individual portfolios within a composite and helps to communicate how similarly the portfolios included within a composite are managed. Firms are allowed to elect which measure of dispersion they will present, with acceptable measures including the returns of the highest- and lowest-performing portfolios during the period, the range of returns (the high portfolio return minus the low portfolio return), or the

standard deviation of portfolio returns using either an equal-weighted or asset-weighted methodology. Only portfolios that have been managed for the full annual period can be included in the calculation of internal dispersion. A measure of dispersion is not required if the composite includes five or fewer portfolios for the full annual period, because the results will not be statistically meaningful.

Three-Year Annualized Standard Deviation The three-year annualized *ex post* (after the fact) standard deviation is an external measure of variability. In contrast to internal dispersion, the three-year annualized *ex post* standard deviation of the composite measures and quantifies the volatility of the composite monthly returns over time, irrespective of the returns of the underlying portfolios. The figure must be calculated for both the composite and the benchmark using 36 monthly returns, with the comparison of the two illustrating whether the composite returns were more or less volatile (with increased volatility implying a higher level of risk) than those of the benchmark during the time period.

Additional statistics may also be necessary depending on the characteristics of the specific composite. Also note that all required and recommended information in the GIPS Report must be presented in the same currency.

5.3.2 *Disclosures*

To comply with the GIPS standards, firms must disclose certain information in GIPS Reports regarding their performance and the policies adopted by the firm. Although some disclosures are required for all firms, others are specific to certain circumstances and may not apply in all situations. Firms are not required to make negative assurance disclosures (e.g., if the firm does not use leverage in a particular composite strategy, no disclosure regarding the use of leverage is required).

One of the essential disclosures for every firm is the GIPS compliance statement. Once a firm meets all applicable requirements of the GIPS standards and begins to claim compliance, it must use the applicable compliance statement as specified in the GIPS standards. There are separate compliance statements for firms that have been verified and those that have not been verified.

In addition to the compliance statement, there is a number of firm- and composite-specific disclosures intended to provide full and fair disclosure to the user of the GIPS Report. Following is an example of a GIPS Composite Time-Weighted Return Report that includes the core elements that apply to the majority of firms and composites. Please also refer to Appendix A within the GIPS Standards for Firms for additional samples of the various types of GIPS Reports.

An Example GIPS Composite Time-Weighted Return Report: Large-Cap Equity Composite

Period	Composite Gross Return (%)	Composite Net Return (%)	Benchmark Return (%)	Number of Portfolios	Composite Assets ($M)	Total Firm Assets ($M)
2011	2.12	1.25	1.50	17	27	31
2012	15.78	14.76	16.42	23	42	57
2013	35.21	34.02	33.11	36	77	121
2014	14.76	13.74	13.24	35	72	138
2015	1.21	0.28	0.92	33	63	132
2016	11.42	10.38	12.05	38	75	152
2017	21.57	20.41	21.69	43	88	179
2018	–3.27	–4.19	–4.78	40	81	168

(Continued)

Period	Composite Gross Return (%)	Composite Net Return (%)	Benchmark Return (%)	Number of Portfolios	Composite Assets ($M)	Total Firm Assets ($M)
2019	34.89	33.61	31.43	47	95	198
2020	–19.87	–20.76	–21.78	41	78	163

Period	Composite 3-Yr Std Dev (%)	Benchmark 3-Yr Std Dev (%)	Internal Dispersion	Non-Fee-Paying Assets (%)
2011	--	--	0.89	12
2012	--	--	1.89	9
2013	13.02	12.52	2.02	8
2014	9.37	9.02	1.69	5
2015	11.13	10.52	1.28	0
2016	10.78	10.61	1.65	0
2017	10.16	9.98	1.75	0
2018	10.89	10.60	0.96	0
2019	11.73	11.21	2.13	0
2020	13.25	12.79	2.45	0

1 **Firm Definition:** All-Star Asset Management ("All-Star") is an independent, employee-owned investment management firm. The firm was established in 2010.

2 **Compliance Statement:** All-Star claims compliance with the Global Investment Performance Standards (GIPS®) and has prepared and presented this report in compliance with the GIPS standards. All-Star has been independently verified for the periods 1 January 2011 to 31 December 2020. The verification report is available upon request. A firm that claims compliance with the GIPS standards must establish policies and procedures for complying with all the applicable requirements of the GIPS standards. Verification provides assurance on whether the firm's policies and procedures related to composite and pooled fund maintenance, as well as the calculation, presentation, and distribution of performance, have been designed in compliance with the GIPS standards and have been implemented on a firm-wide basis. Verification does not provide assurance on the accuracy of any specific performance report.

3 **Composite Description:** The Large-Cap Equity Composite includes all discretionary portfolios managed to the Large-Cap Equity strategy. The strategy seeks reasonable income and capital growth by investing primarily in large-cap equity securities of US companies. Equity securities are subject to several risks, including market risk and company-specific event risk. Additionally, the strategy is less diversified than the benchmark and, therefore, may underperform the benchmark during certain periods. The minimum account size for inclusion in the composite is $1 million.

4 **Benchmark Description:** The Large-Cap Equity Index is a market-capitalization-weighted equity index of all US stocks with a market cap greater than $10 billion.

5 **Calculation Methodologies:** Performance results presented are time-weighted returns. Valuations are computed and performance is reported in US dollars. All returns include the reinvestment of income and dividends.

6 **Treatment of Fees:** Gross-of-fees returns are presented before management and custodial fees but after all transaction costs. Net-of-fees returns are calculated by deducting actual investment management fees. Actual investment advisory fees incurred by clients may vary.

7 **Fee Schedule:** The management fee schedule for separate accounts is 1.00% on the first $5 million and 0.75% thereafter.

8 **Internal Dispersion:** The measure of internal dispersion presented is the equal-weighted standard deviation of the annual gross-of-fees returns for portfolios included in the composite for the full year.

9 **Risk Measures:** The three-year annualized *ex post* standard deviation measures the variability of the composite gross returns and the benchmark returns over the preceding 36-month period.

10 **Additional Information:** Policies for valuing investments, calculating performance, and preparing GIPS Reports are available upon request. A list of composite descriptions, a list of descriptions for limited distribution pooled funds, and a list of broad distribution pooled funds are also available upon request. Past performance is no guarantee of future results.

11 **Composite Inception Date:** January 2011

12 **Composite Creation Date:** April 2014

13 **Trademark Disclaimer:** GIPS® is a registered trademark of CFA Institute. CFA Institute does not endorse or promote this organization, nor does it warrant the accuracy or qualify of the content contained herein.

EXAMPLE 10 GIPS COMPOSITE REPORTS

1 A GIPS Composite Time-Weighted Return Report must include:

A cumulative returns for the composite and the benchmark.

B annual returns for the composite and the benchmark.

C annualized returns for the composite and the benchmark.

2 Dispersion is a measure of:

A the spread of the returns for the individual portfolios within a composite.

B the volatility of the composite monthly returns.

C variance between the composite and the benchmark returns.

3 Acceptable measures of dispersion include:

A highest-performing portfolio return.

B standard deviation of portfolio returns.

C three-year annualized standard deviation of composite returns.

Solution to 1:

B is correct. GIPS Composite Time-Weighted Return Reports are required to include annual returns.

Solution to 2:

A is correct. Dispersion measures the variability of portfolio returns. The volatility of composite returns is measured by the three-year annualized ex post standard deviation. The variance between the composite and the benchmark returns is referred to as excess return.

Solution to 3:

B is correct. The highest-performing portfolio return would not communicate the dispersion of portfolio returns unless accompanied by the return of the lowest-performing portfolio. Three-year annualized standard deviation is calculated for the composite as a whole and expresses the volatility of the composite returns rather than the dispersion of the underlying portfolio returns.

6 KEY DIFFERENCES BETWEEN THE GIPS STANDARDS FOR FIRMS AND THE GIPS STANDARDS FOR ASSET OWNERS

Much of this reading has focused on the elements of the GIPS Standards for Firms. However, there are two additional chapters of the 2020 edition of the GIPS standards with which candidates should also be familiar: the GIPS Standards for Asset Owners and the GIPS Standards for Verifiers. Because asset owners are also reporting performance, it is particularly helpful to understand the key differences between the GIPS Standards for Firms and the GIPS Standards for Asset Owners.

Although any organization that has discretionary authority to manage assets—either by managing the assets directly or by having discretion to hire and fire underlying investment managers—can claim compliance with the GIPS standards, additional guidance that specifically addresses the circumstances of asset owners that desire to claim compliance with the GIPS standards is warranted, because the needs of asset owners are quite distinct from the needs of investment management firms that claim compliance. With this goal in mind, the unique aspects of the GIPS standards related to asset owners were collected in their own dedicated chapter under the 2020 edition of the GIPS standards.

A key distinction between an investment management firm and an asset owner is that asset owners generally do not have multiple clients. They generally manage a dedicated pool of assets for an individual entity, such as a public or private pension fund, endowment, foundation, or family office. Because of this, an asset owner's motivations for claiming compliance with the GIPS standards may differ from those of an investment management firm. Asset owners that choose to comply with the GIPS standards tend to do so primarily for the internal benefits, such as the enhanced internal control structure and standardized processes that a GIPS compliance program can provide.

Asset owners also typically have an oversight body, such as a board of trustees, that is responsible for establishing investment policies and monitoring performance and to whom the asset owner is accountable. Compliance with the GIPS standards may assist staff in reporting to their oversight body and may reassure members of the oversight body that the reporting provides fair and full disclosure of performance.

Often an asset owner will manage a single pool of assets, which is commonly referred to as a **total fund**. Whereas firms report on the performance of composites or pooled funds, asset owners typically report the results for their total fund. The fund has an investment objective, spelling out the allocation to various underlying asset classes. The fund itself usually consists of underlying portfolios, each representing one of the component strategies used to achieve the asset owner's investment objective.

Asset owners are not required to present composites in compliance with the GIPS standards and instead are required to report performance for the total fund. The total fund may be included in a composite, but doing so is not required. Asset owners may also choose to create additional composites consisting of groupings of portfolios representing a particular strategy or asset class (e.g., an equity composite or a private equity composite) but are not required to do so.

Because asset owners also typically do not have *prospective* clients and they do not compete with other entities for new business, the requirement to make every reasonable effort to provide a GIPS Report to all prospective clients does not apply to an asset owner. Rather, their required reporting takes the form of a GIPS Asset Owner Report for all total funds and any additional composites that they have created that must be provided to their oversight body.

Another key difference between the GIPS Standards for Firms and the GIPS Standards for Asset Owners is the length of the track record that must be initially presented in compliance with the GIPS standards before compliance can be claimed. Whereas a firm is required to initially present a compliant track record of at least five years, an asset owner is required to present only one year (or since inception, if shorter than a year) of compliant performance. Because the asset owner is reporting to an oversight body, it is not necessary to revise or restate past performance merely to align with the GIPS standards. Like a firm, an asset owner is required to build up to a minimum of 10 years of compliant performance over time.

Under certain circumstances, some asset owners may market their investment management capabilities to prospective clients, similar to a traditional investment management firm. These asset owners would follow the GIPS Standards for Firms with respect to that portion of their business.

EXAMPLE 11 GIPS STANDARDS FOR ASSET OWNERS

1 Asset owners are required to provide a:

- **A** GIPS Composite Report to all prospective clients.
- **B** GIPS Pooled Fund Report to all prospective investors.
- **C** GIPS Asset Owner Report to their oversight body.

2 To initially claim compliance with the GIPS standards, an asset owner must present a minimum of:

- **A** 1 year of compliant performance, or since inception.
- **B** 5 years of compliant performance, or since inception.
- **C** 10 years of compliant performance, or since inception.

Solution to 1:

C is correct. Asset owners typically do not have prospective clients or prospective investors and are required only to provide a GIPS Asset Owner Report to their oversight body.

Solution to 2:

A is correct. Asset owners are required to present only one year of compliant performance, or since the asset owner or total fund's inception. Firms that claim compliance with the GIPS standards must initially present five years of compliant performance, or since inception.

SUMMARY

As you have learned, the GIPS standards provide an ethical framework for calculating and presenting investment performance. The following summary highlights some of the key points made in this reading.

- The GIPS standards are ethical standards that promote fair representation and full disclosure of investment performance results for investment management firms and asset owners.
- The GIPS standards are maintained and funded by CFA Institute in collaboration with a number of volunteer committees and regional GIPS Standards Sponsors.
- The GIPS standards were created to help deter abusive practices such as misrepresenting performance results, selective application of calculation methodologies, cherry-picking portfolios or time periods, survivorship bias, use of inappropriate benchmarks, and inadequate disclosure.
- The GIPS standards are divided into three chapters: the GIPS Standards for Firms, the GIPS Standards for Asset Owners, and the GIPS Standards for Verifiers.
- Only an investment management firm or an asset owner that manages actual assets can claim compliance with the GIPS standards. The GIPS standards must be applied on a firm-wide or asset owner–wide basis, and a claim of compliance can be made only when all the requirements of the GIPS standards have been satisfied.
- A firm must be defined as an investment firm, subsidiary, or division held out to the public as a distinct business entity.
- The GIPS standards recommend that firms adopt the broadest, most meaningful definition of the firm.
- Firms that claim compliance with the GIPS standards must adhere to the provisions of the GIPS standards as well as any Guidance Statements, interpretations, and Questions & Answers published by CFA Institute and the GIPS standards governing bodies.
- Firms must document and consistently apply their policies and procedures used in establishing and maintaining compliance with the GIPS standards.
- Firms that claim compliance are also required to adhere to any laws or regulations to which they are subject regarding the calculation and presentation of performance.
- Firms are prohibited from presenting performance or performance-related information that is false or misleading. This requirement applies to all performance presentation materials disseminated by the firm.
- GIPS Reports produced by firms are standardized materials that include information for a particular composite or pooled fund. Firms must make every reasonable effort to provide a GIPS Composite Report to all prospective clients when they initially become prospective clients. Firms are also required to make every reasonable effort to provide GIPS Reports to all prospective investors in limited distribution pooled funds when they initially become prospective investors.

- Firms must maintain and make available upon request to prospective clients a complete list of composite descriptions. Additionally, firms that manage pooled funds must maintain a complete list of descriptions for limited distribution pooled funds and/or a complete list of broad distribution pooled funds and make those lists available upon request to prospective pooled fund investors.
- Firms are required to maintain records that support their claim of compliance with the GIPS standards, including all data and information necessary to support all items included in GIPS Reports.
- Once a firm has met all of the requirements of the GIPS standards, the firm must notify CFA Institute of its claim of compliance via the GIPS Compliance Notification Form.
- Total firm assets include all discretionary and non-discretionary assets for which a firm has investment management responsibility.
- General accounting requirements of the GIPS standards include the use of total returns, trade date and accrual accounting, and including cash and cash equivalents in portfolio valuations.
- Portfolios are required to be based on fair value in accordance with the composite-specific or pooled fund–specific valuation policy established by the firm.
- Firms are generally required to value portfolios at least monthly and on the date of all large cash flows. Firms are required to define what constitutes a large cash flow on a composite-specific basis.
- Except under certain circumstances, a time-weighted return (TWR) is the return measure required by the GIPS standards for presenting performance for composites and pooled funds.
- A money-weighted return (MWR) may be presented instead of a TWR if the firm controls the timing of external cash flows into the composite or pooled fund and the composite or pooled fund has one of the following characteristics: closed-end, fixed life, fixed commitment, or illiquid investments are a significant part of the investment strategy.
- Transaction costs must be deducted from all performance calculations. A gross-of-fees return reflects only the deduction of transaction costs. A net-of-fees return reflects the deduction of transaction costs and investment management fees.
- When calculating composite net-of-fees returns, the investment management fees used may be the actual investment management fees or a model investment management fee that is appropriate to prospective clients.
- A composite is an aggregation of one or more portfolios that are managed according to a similar investment mandate, objective, or strategy. Composites must be defined according to their investment mandate, objective, or strategy.
- Discretion is a firm's ability to implement its intended strategy and must be defined by each firm individually. Discretionary, fee-paying portfolios generally must be included in composites (with the exception of pooled funds that are managed to strategies not offered as segregated accounts), whereas non-discretionary portfolios must be excluded from composites.
- New portfolios must be included in composites on a timely and consistent basis.
- Terminated portfolios must be included in the historical performance of the appropriate composite up to the last full measurement period in which they were under management.

- Portfolios must not move from one composite to another unless documented changes to a portfolio's investment mandate, objective, or strategy, or the redefinition of a composite, make it appropriate.
- Composite time-weighted returns must be calculated by asset-weighting the individual portfolio returns using beginning-of-period values or a method that reflects both beginning-of-period values and external cash flows. Composite money-weighted returns must be calculated by aggregating the portfolio-level information for those portfolios included in the composite as if the composite were a single portfolio.
- GIPS Composite Time-Weighted Return Reports are required to include at least five years of annual composite results, or from inception if the firm or composite has a shorter track record, building up to a minimum of 10 years of compliant performance over time. Other required data elements include benchmark returns that correspond to the presented composite results; the number of portfolios in the composite, the composite assets, and the total firm assets as of each annual period end; a measure of the internal dispersion of annual portfolio returns; and the three-year annualized *ex post* standard deviation of both the composite and the benchmark.
- GIPS Composite Time-Weighted Return Reports also must include detailed disclosures related to the composite, the firm, the benchmark, the treatment of fees, and the manner in which performance results are calculated and presented.
- Asset owners that claim compliance with the GIPS standards are subject to separate requirements from firms. In particular, asset owners are required to provide a GIPS Asset Owner Report to their oversight body and are required to present only one year (or since inception, if shorter than a year) of compliant performance when initially claiming compliance.
- Asset owners that claim compliance with the GIPS standards and market their investment management services to prospective clients must follow the GIPS Standards for Firms with respect to that portion of their business.

PRACTICE PROBLEMS

1 The GIPS standards are *most likely* to apply to an:

A individual composite consisting of portfolio's ran by the firm's best performing portfolio manager.

B investment consultant who recommends portfolio managers to client firms.

C asset owner that manages half the organization's assets internally while hiring outside fund managers to handle the remainder.

2 Which of the following actions is required by the GIPS standards?

A Including supplemental information in a GIPS Report that the firm believes would be of value to interested stakeholders.

B Maintaining policies and procedures that address how the firm adheres to each of the requirements of the GIPS standards.

C Creating a new benchmark that reflects the investment mandate, objective, or strategy of the relevant composite when an appropriate benchmark does not exist.

3 Which of the following characteristics supports defining each division of an investment management organization as a separate firm for the purpose of GIPS compliance?

A Responsibility for portfolio allocation is maintained at the home office.

B All divisions operating in the same country retain similar name and branding.

C Each division is registered with the various regulatory bodies in the jurisdictions in which the division operates.

4 According to the GIPS standards, which of the following *must* be included in total firm assets?

A Uncalled committed capital

B Assets assigned by the firm to a recently hired sub-advisor

C Leverage resulting from the manager's use of derivatives

5 According to the valuation hierarchy of the GIPS standards, the *second* best method for determining an investment's fair value is to use:

A quoted prices for identical or similar investments in markets that are not active.

B market-based inputs that are observable for the investment, other than quoted prices.

C objective, observable quoted market prices for similar investments in active markets.

6 The GIPS standards require that all portfolio performance calculations deduct:

A carried interest.

B transaction costs.

C investment management fees.

7 The money-weighted return would be *most likely* to reflect the performance of both the client and the investment manager when:

A no external cash flows occur during the measurement period.

B illiquid investments are an insignificant part of the investment strategy.

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C the client is responsible for and has control over cash flow timing decisions.

8 Which of the following statements is *most* accurate regarding composite construction under the GIPS standards?

A The decision to include or exclude non-fee-paying portfolios can be composite-specific.

B Portfolios managed by the same investment manager should be included in a single composite.

C A pooled fund managed to a strategy not offered in a segregated account must be included in a composite.

9 A new client's portfolio is to be managed according to the firm's large-cap equity strategy. The client's portfolio contains a small, easily identifiable legacy position that for tax reasons they do not wish to sell. According to the GIPS standards, which of the following actions would be the *most* appropriate option for the firm?

A Classify the entire portfolio as non-discretionary because of the restriction.

B Include the portfolio along with other restricted portfolios in a single "restricted" composite.

C Include the unrestricted segment of the portfolio in the large-cap equity composite.

10 An investment manager receives notification on 25 September that a client wishes to close their account and withdraw their assets as of the end of October. Assuming the firm calculates composite performance monthly, the last measurement period that the client's portfolio should be a constituent of the relevant composite is most likely:

A August.

B September.

C October.

11 Under the GIPS standards, which action would be the *most* appropriate basis for reassigning an investor's portfolio to a different composite?

A A derivative overlay strategy is added to a small-cap equity portfolio at the client's request in order to boost returns.

B Due to market conditions, a small-cap equity portfolio holds a large cash position at the direction of the portfolio manager.

C A small-cap equity portfolio permits for up to 5% of the portfolio assets to be invested in foreign stocks, while the other members of the small-cap equity composite typically only allow investment in domestic equities.

12 According to the GIPS standards, composite time-weighted returns can be calculated by using which of the following values as weights?

A Beginning-of-period portfolio values

B End-of-period portfolio values along with external cash flows

C The average of beginning and ending portfolio values along with external cash flows

13 A large-cap equity composite is comprised of Portfolio Red, Portfolio Green, and Portfolio Blue. Cash flows and related data for the portfolios during April 2020 are listed in Exhibit 1. Assume that the cash flows occurred at the end of the day and the cash flows do not exceed the firm's definition of "large." Using the Aggregate Return method to calculate the composite return for April produces a value closest to:

Exhibit 1. White Composite Data for the Month of April 2020

Portfolio	Beginning Value	Ending Value	Cash Flows	Day of Cash Flow	Portfolio Return
Red	76,325	74,632	–5,000	10	4.5307%
Green	96,875	100,549	–	–	3.7925%
Blue	101,268	122,237	15,000	5	5.2466%
Total	274,468	297,418	10,000		

A 4.53%.

B 4.55%

C 4.57%.

14 Which of the following must be included in a GIPS Composite Time-Weighted Return Report?

A Total firm assets as of each annual period end

B A disclosure as to whether the use of leverage is part of the investment strategy

C Standard deviation as a measure of internal dispersion

15 Which of the following actions applies to an asset owner seeking to comply with the GIPS standards? The asset owner *must*:

A present a year of compliant performance in a GIPS Asset Owner Report.

B present a compliant track record of at least five years, or the period since inception.

C create composites consisting of groupings of portfolios representing a strategy or asset class.

SOLUTIONS

1 C is correct. Only firms or asset owners that manage actual assets may claim compliance with the GIPS standards. Managing assets internally or selecting and hiring outside managers are both ways of exercising investment discretion.

A is incorrect. The terms "investment manager" and "asset owner" in the context of the GIPS standards apply to organizations, not to individuals. The GIPS standards apply to the organizations that claim compliance—investment management firms or asset owners—not to individual composites. The phrase "the firm's best performing portfolio manager" implies that more than one manager is employed by the firm.

B is incorrect. Investment consultants typically cannot claim compliance with the GIPS standards, except in instances where they have full discretion over the selection of investment managers. Recommending investment managers to client firms implies that the consultant does not have full discretion over the selection of investment managers.

2 B is correct. A key component of any GIPS compliance program is documenting and maintaining comprehensive policies and procedures that are applied consistently. A firm's policies and procedures must address how the firm adheres to each of the requirements of the GIPS standards, as well as any recommendations the firm has chosen to adopt.

A is incorrect. A GIPS Report *may* include recommended information or supplemental information, as well as other information that the firm believes would be of value to readers, but is not required to do so under the GIPS standards.

C is incorrect. When presenting composite or pooled fund information, the GIPS standards require the results to be accompanied by an appropriate benchmark unless an appropriate benchmark does not exist. If an appropriate benchmark is not available, the GIPS standards do not *require* that a benchmark be created.

3 C is correct. Being a separate legal entity is one of the possible criteria for identifying a distinct business entity that can be defined as a firm, even if the legal entity is affiliated with a larger parent company. This supports defining each division of the organization as a separate firm.

A is incorrect. Retaining discretion (in this case, over portfolio allocation) is one criterion that can be used to define a distinct business entity as a firm for the purpose of GIPS compliance. This suggests that the entire investment organization should be considered a single firm.

B is incorrect. The GIPS standards recommend that the scope of the firm definition should include all offices operating under the same brand name, regardless of geographic distinctions. This would support defining the different divisions of the organization as a single firm.

4 B is correct. If a firm has the authority to assign a sub-advisor to manage a portfolio or a portion of a portfolio (i.e., the firm can hire or fire the sub-advisor), then the firm must include the performance of the portfolio (or portion thereof) in the firm's performance history and include the portfolio's assets (or portion thereof) in total firm assets.

A is incorrect. Total firm assets can only include actual assets managed by the defined firm. Uncalled committed capital refers to assets that have been pledged to the firm by clients or investors, but the firm has yet to call (or "draw down") the capital. Uncalled committed capital would, therefore, represent assets that the firm does not currently manage.

C is incorrect. When calculating total firm assets, values for portfolios that employ leverage must be net of any discretionary leverage and not grossed up as if the leverage did not exist. If the decision to use leverage is made by the firm rather than the client, then the leverage is discretionary and the impact of that leverage should not be reflected in total firm assets. On the other hand, if the client secures the leverage and allocates the gross amount to the manager, then the leverage would be considered non-discretionary and the gross assets must be included in total firm assets.

5 C is correct. According to the GIPS standards' valuation hierarchy, the *second* best method of determining an investment's fair value is to use objective, observable quoted market prices for similar investments in active markets—for example, market prices for investments within the same asset class with similar characteristics to the investment being valued.

A is incorrect. According to the GIPS standards' valuation hierarchy, the *third* best method of determining an investment's fair value is to use quoted prices for identical or similar investments in markets that are not active (e.g., markets in which there are few transactions for the investment, the prices are not current, or price quotations vary substantially over time and/or between market makers).

B is incorrect. According to the GIPS standards' valuation hierarchy, the *fourth* best method of determining an investment's fair value is to use market-based inputs, other than quoted prices, that are observable for the investment (e.g., reported earnings).

6 B is correct. The GIPS standards require that transaction costs be deducted from all performance calculations.

A is incorrect. Carried interest is a management fee, which is treated separately from transaction costs. Carried interest and other management fees must be deducted from net-of-fees performance, but not gross-of-fees performance.

C is incorrect. Management fees are required to be deducted from net-of-fees performance, but not gross-of-fees performance.

7 A is correct. When no external cash flows have occurred, the time-weighted return and the money-weighted return will produce the same results, thus reflecting both the return of the client and the investment manager.

B is incorrect. Illiquid investments as a *significant* part of the investment strategy represent an additional characteristic that can be used to justify the firm's use of a money-weighted return rather than a time-weighted return. However, whether illiquid investments are a significant or insignificant part of the investment strategy does not have an impact on whether the return achieved by the investment manager or experienced by the client are similar.

C is incorrect. Money-weighted returns will reflect the return of both the client and the investment manager when the investment manager—not the client—controls the timing of external cash flows.

8 A is correct. If a firm chooses to include non-fee-paying discretionary portfolios in a composite, the firm is not obligated to include all non-fee-paying discretionary portfolios in composites. The decision of whether to include or exclude non-fee-paying portfolios can be composite-specific.

B is incorrect. Composites are defined by the investment mandate, objective, or strategy. Composites are not defined according to the individual managing the portfolios.

C is incorrect. Firms are not required to create a composite that only includes one or more pooled funds if the strategy is not offered as a segregated account. Firms have the option of creating composites that include one or more pooled funds managed to a strategy that is not offered as a segregated account, but they are not required to do so.

9 C is correct. Most restrictions imposed by a client do not automatically require classifying a portfolio as non-discretionary. In this case, the legacy position may be classified as “unmanaged” or “unsupervised” and segregated from the remaining, discretionary portion of the portfolio. Since the restriction constitutes a small and easily identifiable position, the unsegregated portion of the portfolio should not be materially different from others managed to the large-cap equity strategy. Therefore, if feasible for the firm, this would be the most appropriate option.

A is incorrect. Though potentially an acceptable approach, this is not the most appropriate option. Given that the legacy position is a small part of the portfolio and that likely could be easily identified and segregated from the discretionary portion of the portfolio, the preferred approach would be for the legacy position to be classified as unmanaged and for the remaining portion of the portfolio classified as discretionary.

B is incorrect. It would not be appropriate to group portfolios with various restrictions into a single “restricted composite,” as the restrictions on each portfolio may be materially different and the aggregate returns of such a composite are unlikely to be meaningful.

10 A is correct. Once a firm receives notification of a pending termination, the firm’s ability to manage the portfolio freely is generally lost and discretion would be considered revoked. For firms that calculate composite performance on a monthly basis (as is the case here), the last full measurement period is the last full month (August, in this case) that a terminating portfolio was under discretionary management.

B is incorrect. The last full measurement period during which the firm had discretion is the month of August, not September, unless the termination notice explicitly instructed the firm to continue to manage the portfolio according to the established guidelines through the end of September.

C is incorrect. In this case, the last full measurement period during which the firm had discretion is the month of August, not October, unless the termination notice explicitly instructed the firm to continue to manage the portfolio according to the established guidelines through the end of October.

11 A is correct. If a client requests a change in mandate that impacts the investment objective or strategy of the portfolio, then a change in composite assignment may be justified. In this case, the addition of a client-directed overlay strategy would warrant removing the portfolio from the small-cap equity composite and either assigning it to a different composite or classifying it as non-discretionary.

B is incorrect. Changes made to portfolios due to tactical investment decisions made by the investment manager that are not directed by the client would not be an appropriate basis for changing composite assignments.

C is incorrect. A composite for a strategy that generally only invests in domestic securities may include portfolios that allow investing in foreign securities as well, unless the composite definition explicitly excludes such portfolios.

12 A is correct. A composite time-weighted return is calculated by asset weighting the underlying portfolio returns, either by weighting the portfolios using beginning-of-period values or a method that reflects both the beginning-of-period values and external cash flows.

B is incorrect. Composite time-weighted returns can be calculated by asset weighting the underlying portfolio returns using beginning-of-period values and external cash flows. Using end-of-period portfolio values is not allowed.

C is incorrect. Calculating composite time-weighted returns by asset weighting the underlying portfolio returns using the average of the beginning and ending portfolio values along with external cash flows is not allowed under the GIPS standards.

13 A is correct. The composite return using the Aggregate Return method is:

$$R_t^{AM} = \frac{EV_t - BV_t - \Sigma CF_{i,t}}{BV_t + \Sigma(CF_{i,t} \times w_{i,t})}$$

Portfolio	Beginning Value	Ending Value	Cash Flows	Day of Cash Flow	Cash Flow Weight	Weighted Cash Flows
Red	76,325	74,632	−5,000	10	66.67%	−3,333.33
Green	96,875	100,549	–	–	–	0.00
Blue	101,268	122,237	15,000	5	83.33%	12,500.00
Total	274,468	297,418	10,000			9,166.67

$$R_t = \frac{297,418 - 274,468 - 10,000}{274,468 + 9,166.67} = 0.0457 \text{ or } 4.57\%.$$

B is incorrect. This return was calculated using (incorrectly) the sum of the cash flows in both the numerator and the denominator:

$$R_{S3} = \frac{(297,418 - 274,468 - 10,000)}{274,468 + 10,000} = 0.0455 \text{ or } 4.55\%.$$

C is incorrect. This return is the time-weighted composite return using the beginning assets weighting formula:

$$R_t^{BV} = \frac{\sum_{k=1}^{K}(BV_{K,t} \times r_{K,t})}{\sum_{k=1}^{K} BV_{K,t}}$$

Portfolio	Beginning Value	Portfolio Weight	Portfolio Return	Weighted Return
A	76,325	27.81%	4.5307%	1.26%
B	96,875	35.30%	3.7925%	1.34%
C	101,268	36.90%	5.2466%	1.94%
Total	274,468			4.53%

14 A is correct. GIPS Composite Time-Weighted Return Reports are required to include total firm assets as of each annual period end.

B is incorrect. Firms are not required to make negative assurance disclosures (e.g., if the firm does not use leverage in the strategy, a leverage disclosure is not required).

C is incorrect. Measures of internal dispersion are not limited to standard deviation. The firm has the option of presenting any measure of internal dispersion that it determines to be appropriate.

15 A is correct. Asset owners are only required to present a single year of compliant performance in a GIPS Asset Owner Report.

B is incorrect. An asset owner is only required to present one year (or since inception, if shorter than a year) of compliant performance.

C is incorrect. Asset owners may also choose to create composites consisting of groupings of portfolios representing a strategy or asset class, but they are not required to do so.

Glossary

Accrual accounting the recording of transactions as income is earned or expenses are incurred, rather than when income is received, or expenses are paid.

Advisory-only assets assets for which the firm provides investment recommendations but has no control over the implementation of the investment decisions and no trading authority.

Aggregate Return Method a composite return calculation method that combines all the assets and external cash flows for the portfolios included in the composite to calculate the composite return in the same manner as an individual portfolio.

Asset owner an entity that manages investments, directly and/or through the use of external managers, on behalf of participants, beneficiaries, or the organization itself.

Beginning Assets Weighting Method a composite return calculation method that weights the underlying portfolio returns using beginning-of-period values.

Beginning Assets Plus Weighted Cash Flows Method a composite return calculation method that weights the underlying portfolio returns using beginning-of-period values plus weighted cash flows. Each external cash flow is applied its proportionate weight during the period based on the day on which the cash flow occurred.

Benchmark a point of reference against which a composite's or pooled fund's returns or risk are compared. The benchmark selected must reflect the investment mandate, objective, or strategy of the respective composite or pooled fund.

Broad distribution pooled fund a pooled fund that is regulated under a framework that permits the general public to purchase or hold the pooled fund's shares and that is not exclusively offered in one-on-one presentations.

Bundled fee a fee that can combine multiple fees into one total or "bundled" fee. Bundled fees can include any combination of investment management fees, transaction costs, custody fees, and/or administrative fees.

Carried interest the portion of profits on investments paid or allocated to the general partner of an investment vehicle.

Composite an aggregation of one or more portfolios that are managed according to a similar investment mandate, objective, or strategy.

Composite definition detailed criteria that determine the assignment of portfolios to composites.

Composite description general information regarding the investment mandate, objective, or strategy of the composite.

Discretion the ability of the firm or asset owner to implement its intended strategy.

Distinct business entity a business unit that is organizationally and functionally segregated from other units, divisions, departments, or offices; retains discretion over the assets it manages; and has autonomy over the investment decision-making process.

External cash flow capital (cash or investments) that enters or exits a portfolio, excluding income (dividends or interest payments).

Fair value the amount at which an investment could be sold in an arm's-length transaction between willing parties in an orderly transaction.

Fee-paying portfolios portfolios that are charged a fee for investment management services.

Firm an entity that has been defined for compliance with the GIPS standards. The most common example of such an entity is an investment manager.

GIPS Asset Owner Report an asset owner's presentation for a total fund or composite that contains all the information required by the GIPS standards and may also include recommended information or supplemental information.

GIPS Composite Report a presentation for a composite that contains all the information required by the GIPS standards and may also include recommended information or supplemental information.

GIPS Pooled Fund Report a presentation for a pooled fund that contains all the information required by the GIPS standards and may also include recommended information or supplemental information.

GIPS Report primary instrument through which GIPS-compliant information is communicated; may be a GIPS Composite Report, a GIPS Pooled Fund Report, or a GIPS Asset Owner Report.

Gross-of-fees return the return on investments reduced by any transaction costs (i.e., before the deduction of investment management fees).

Internal dispersion a measure of the spread of the annual returns of individual portfolios within a composite. Measures may include, but are not limited to, high/low, range, and standard deviation (either using an asset-weighted or equal-weighted methodology).

Internal rate of return (IRR) the implied discount rate or effective compounded rate of return that equates the present value of cash outflows with the present value of cash inflows. A common method for calculating a money-weighted return.

Investment management fees the fees payable to the firm for managing a portfolio. Investment management fees are typically asset based, performance based, or a combination of the two but may take different forms as well. Investment management fees also include carried interest.

Investment manager an organization that manages assets on behalf of clients.

Large cash flow the level at which the firm determines that an external cash flow may distort performance if the portfolio is not valued and a sub-period return is not calculated. Must be defined based on the value of cash flow or a percentage of the portfolio or composite assets.

Leverage borrowing or using financial instruments, such as derivatives, to increase the exposure of a portfolio beyond the fair value of its assets.

Limited distribution pooled fund any pooled fund that is not a broad distribution pooled fund.

Linking the method by which sub-period returns are geometrically combined to calculate the period return, or by which periodic returns are geometrically combined to calculate longer-period returns.

Market value the price at which investors can buy or sell an investment at a given time multiplied by the quantity held, plus any accrued income.

Modified Dietz Method a method for calculating portfolio returns that adjusts for daily-weighted external cash flows.

Money-weighted return (MWR) a method of calculating returns that reflects the change in value and the timing and size of external cash flows.

Net-of-Fees Return the return on investments reduced by both transaction costs and investment management fees.

Non-fee-paying portfolios portfolios that are not charged a fee for investment management services.

Performance examination a process by which an independent verifier conducts testing of a specific composite or pooled fund in accordance with the required performance examination procedures of the GIPS standards.

Pooled fund a portfolio whose ownership interests may be held by more than one investor.

Pooled fund description general information regarding the investment mandate, objective, or strategy of the pooled fund.

Portability a firm's ability to use performance from a past firm or affiliation and represent it as its own historical performance, if specific conditions have been met.

Portfolio an individually managed group of investments. A portfolio may be a segregated account or a pooled fund.

Private market investments investments that are illiquid, not publicly traded, and not traded on an exchange, including real assets (e.g., real estate and infrastructure), private equity, and similar investments.

Prospective client any person or entity that has expressed interest in one of the firm's composite strategies and qualifies to invest in the composite.

Prospective investor any person or entity that has expressed interest in one of the firm's pooled funds and qualifies to invest in the pooled fund.

Provisions individually itemized points that the principles of the GIPS standards are separated into. Each provision addresses a task or action as a requirement or a recommendation.

Recommendation a suggested task or action that should be followed or performed; identified in the GIPS standards by the word "should." A recommendation is considered to be best practice but is not a requirement.

Requirement a task or action that must be followed or performed; identified in the GIPS standards by the word "must."

Segregated account a portfolio owned by a single client.

Significant cash flow the level at which the firm determines that one or more client-directed external cash flows may temporarily prevent the firm from implementing the composite strategy.

Sub-advisor a third-party investment manager hired by the firm to manage some or all of the assets for which a firm has investment management responsibility.

Temporary new account an account for temporarily holding client-directed external cash flows until they are either invested according to the composite strategy or disbursed.

Theoretical performance performance that is not derived from the investment of actual assets. Theoretical performance includes model, backtested, hypothetical simulated, indicative, *ex ante*, and forward-looking performance.

Time-weighted return (TWR) a method of calculating returns that reflects the change in value and attempts to negate or neutralize the impact of external cash flows.

Total firm assets all discretionary and non-discretionary assets for which a firm has investment management responsibility.

Total fund a pool of assets managed by an asset owner according to a specific investment mandate, which is typically composed of multiple asset classes. The total fund usually consists of underlying portfolios, each representing of the strategies used to achieve the asset owner's investment mandate.

Total pooled fund fees all fees and expenses charged to the pooled fund, including but not limited to investment management fees and administrative fees.

Total return the rate of return that includes realized and unrealized gains and losses plus income for the measurement period.

Trade date accounting recognizes the asset or liability on the date of the purchase or sale and not on the settlement date.

Transaction costs the costs of buying and selling investments. These costs typically take the form of brokerage commissions, exchange fees, and/or bid–offer spreads from brokers.

Uncalled committed capital assets that have been pledged to the firm by clients or investors, but the firm has yet to call (or "draw down") the capital.

Verification the process by which an independent verifier conducts testing of a firm or asset owner that claims compliance with the GIPS standards, in accordance with the required verification procedures of the GIPS standards.

Verifier a third party, independent from the firm or asset owner that claims compliance with the GIPS standards, that is hired to conduct a verification.