HANDBOOK VOLUME II



NCREIF PREA

Reporting Standards

Updated | December 1, 2025

NCREIF PREA pension real estate association

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ACKNOWLEDGEMENTS

Under the direction of the NCREIF PREA Reporting Standards ("Reporting Standards") Board, the Reporting Standards Council was responsible for ensuring that this initiative was successfully completed. The Reporting Standards Board and Council would like to acknowledge the hard work and dedication of the NCREIF committees-its leaders and members, who developed the materials contained herein and ensure they are periodically updated in order to provide the private institutional real estate industry with the most up to date interpretive guidance to facilitate informed decision making for plan sponsors, investors and other interested parties.

We also wish to acknowledge Deloitte & Touche LLP who provided editorial and graphics support in finalizing Volume II of the Reporting Standards Handbook.

Reporting Standards sponsors

National Council of Real Estate Investment Fiduciaries (NCREIF)

NCREIF is an association of real estate professionals which includes investment managers, interest in the industry of private institutional real estate investment. NCREIF serves the institutional real estate community as an unbiased collector and disseminator of real estate performance information, most notably the NCREIF Property Index (NPI).

Pension Real Estate Association (PREA)

PREA is a nonprofit organization whose members are engaged in the investment of tax-exempt pension and endowment funds into real estate assets. PREA's mission is to serve its members engaged in institutional real estate investments through the sponsorship of objective forums for education, research initiatives, membership interaction, and information exchange.

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	Valuation Manual	December 16, 2020
	Debt Fund Manual	December 1, 2025
Research	Enhancing Comparability of Component Returns when Benchmarking to NFI-ODCE	December 19, 2022
	ESG Principles of Reporting for Private Real Estate	October 2021
	Total Global Expense Ratio: a globally comparable measure of fees and costs for real estate investment vehicles	November 2019
	Gross and Net IRR: Adding transparency and comparability to closed-end fund performance and Investor Specific Reporting	August 23, 2019
	Assessing and Measuring Financial Risk Related to Subordinated Debt Investments in Private U.S. Institutional Real Estate Investment Funds	July 13, 2016
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INTRODUCTION

Preface

The NCREIF PREA Reporting Standards Handbook Volume II is a codification of the Reporting Standards reference materials. These materials are included in the Reporting Standards hierarchy. The Reporting Standards hierarchy also includes the Reporting Standards-Volume I of the Reporting Standards Handbook. If guidance for a particular transaction, item or event is not specified within the Reporting Standards, an Account should then refer to the Reporting Standards reference materials. The reference materials include:

- Manuals: Discipline specific documents or workbooks which provide detailed explanations of the Reporting Standards' elements. These detailed explanations can also include calculations and illustrations.
- Guides: Topic-specific statements, interpretations and clarifications of the standards adopted by the Foundational Standards organizations.
- Adopting Releases: Exposure drafts with key questions answered and the basis for the final conclusions reached. An exposure draft proposes a specific written standard for incorporation into the Reporting Standards. It includes an executive summary of the key issues and questions to be considered by the industry and a discussion of the basis for the conclusions reached.

The appropriateness and relative weight placed on sources of the Reporting Standards reference materials requires professional judgment to determine the relevance of such guidance to particular facts and circumstances.

Effective date

The Volume II compilation will change periodically as new materials are added or existing materials are modified. All materials included in Volume II are subject to the approval of the Reporting Standards Board. The Reporting Standards Board and Council believe that materials which facilitate the compliance effort should be made available to the industry as soon as practical.

Reference identifiers

The cover of the two volumes Handbook will be dated with the most recent date of the last change to either Volume I or Volume II. When a change occurs, the immediately preceding version of the Handbook will be posted on the Reporting Standards web site and watermarked as "superseded".

Each document within the Handbook will be dated with the date approved by the Reporting Standards Board. The Reporting Standards Board is required to approve all documents included in Reporting Standards Handbook.

MANUALS

	Date
Fair Value Accounting Policy Manual	December 20, 2024
Performance and Risk Manual	March 14, 2022
Valuation Manual	December 16, 2020
Debt Fund Manual	December 1, 2025

HANDBOOK VOLUME II: MANUALS

NCREIF PREA

Reporting Standards

Updated December 20, 2024

FAIR VALUE ACCOUNTING POLICY

This NCREIF PREA Reporting Standards Manual has been developed with participation from NCREIF's Accounting Committee. The Manual has been endorsed and approved by the Reporting Standards Council.

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This NCREIF PREA Reporting Standards Fair Value Accounting Policy Manual is dedicated to the memory of John Venezia, who passed away in May 2020. John was a loving husband and dedicated father, a finance Director at TIAA-CREF, former Chair of the NCREIF Accounting Committee, and a beloved member of our community. Over his many years of involvement, John made significant contributions to this manual and the real estate industry. John was dedicated to the profession and was always willing to creatively find solutions that positively impacted the real estate industry. More importantly, John was a great person, someone everyone wanted to spend time with. John loved spending time with his family, listening to music and playing the guitar with his 4th band since 1978 "Sugarush". He will be missed by all.





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INTRODUCTION

1.01 Purpose

The purpose of the NCREIF PREA Reporting Standards ("Reporting Standards") Fair Value Accounting Policy Manual (the "Manual") is to provide a consistent set of accounting standards when preparing financial statements for the institutional real estate investment community. In 1983, in response to the needs of the investor community, the NCREIF Accounting Committee developed guidelines for fair value accounting to be used by the institutional real estate investment industry. These accounting standards are supported by authoritative U.S. GAAP ("GAAP") and non-authoritative accounting guidance when GAAP does not sufficiently address a particular topic. As noted in the Reporting Standards, Volume I, Fair Value Generally Accepted Accounting Principles ("FV GAAP") is the foundational standard for fair value accounting used to report by the institutional real estate investment community to both tax-exempt investors (e.g., pension funds) as well as taxable investors (e.g., Funds and international investors). It is the intent of this Manual for users to prepare financial statements that comply with GAAP, while supporting the Reporting Standards in a consistent and transparent manner. Furthermore, the topics within the Manual are limited to those topics specifically relevant to reporting real estate investments at fair value.

Where applicable guidance is not specified within authoritative GAAP, non-authoritative guidance may be applied. The appropriateness of the sources of non-authoritative guidance depends on its relevance to particular facts and circumstances, and the specificity of the guidance to the facts and circumstances. The lack of applicable authoritative accounting guidance specific to the institutional real estate investment industry has caused certain fair value accounting practices and alternative presentations - prevalent in the industry - to constitute non-authoritative GAAP. These practices are included in the Manual.

The main objective of this Manual and related appendices is to provide a consistent set of accounting standards applicable to those aspects of the preparation of financial statements that are unique or significant to private institutional real estate entities. This Manual and related appendices are not intended to address a comprehensive application of GAAP to the preparation of financial statements of real estate entities. Users of this Manual and the related appendices should consider all recently issued ASUs whether included or excluded in this Manual to determine their effect on the preparation of financial statements.

1.02 Organization of manual

In addition to this introduction, this Manual has separate sections that address the three levels of accounting: Fund Level, Investment Level and Property Level. Included in the appendices are illustrative financial statement examples presented under the Operating Model and Non-operating Model.

1.03 Terminology

Certain terms as used herein are defined as follows:

- Fund: Includes all commingled funds, co-investments, joint ventures and single-investor investment accounts; a Fund has one or more investments and could include real estate and debt investments.

- Investment: A discrete asset or group of assets held for income, appreciation, or both and tracked separately
- Property: A real estate asset
- Operating Model: A financial statement presentation method in which all investment (property) level assets and liabilities are presented on a gross basis.
- Non-operating Model: A financial statement presentation method in which all investment (property) level assets and liabilities are presented on a net basis.
- Financial Accounting Standards Board ("FASB"): The Financial Accounting Standards Board is the designated organization for establishing standards of financial accounting and reporting. Those standards govern the preparation of financial reports. The FASB is officially recognized as authoritative by the Securities and Exchange Commission ("SEC") and the American Institute of Certified Public Accountants.
- Accounting Standards Codification ("ASC"): Codification of FASB standards that comprise GAAP.
- Accounting Standards Update ("ASU"): A document issued by the FASB in the United States, which details accounting standards and guidance on selected accounting policies set out by FASB.
- Governmental Accounting Standards Board ("GASB"): The designated organization to establish and improve standards of state and local governmental accounting and financial reporting that will result in useful information for users of financial reports and guide and educate the public, including issuers, auditors, and users of those financial reports.
- American Institute of Certified Public Accountants ("AICPA"): The AICPA represents the CPA profession nationally in regard to rule-making and standard-setting and serves as an advocate before legislative bodies, public interest groups, and other professional organizations. The AICPA develops standards for audits of private companies and other services performed by CPAs.
- Accounting principles generally accepted in the United States of America ("U.S. GAAP" or "GAAP"): The United States Accounting standards established by the FASB. GAAP are the standards, conventions, and rules that accountants follow in recording and summarizing transactions and in preparing financial statements. GAAP, measured at fair value, is the foundational standard for accounting within the Reporting Standards.
- Reporting Entity – The entity that is preparing the financial statements, which is typically a Fund as defined above

1.04 Fair value

1.04(a) Introduction

The fundamental premise for fair value-based accounting presentation is based on existing authoritative accounting standards which require that certain investments held by certain tax-exempt investors, including defined benefit pension plans and endowments are reported at fair value. FASB ASC 960, which applies to corporate plans, requires that all plan investments be reported at fair value because that reporting provides the most relevant information about the resources of a plan and its present and future ability to pay benefits when due. In addition, GASB Codification Section Pe5, Pension Plans-Defined Benefit, and Section Pe6,

Pension and Other Postemployment Benefit Plans — Defined Contribution, requires government-sponsored pension plans to present investments at fair value in their financial statements. Defined benefit and government-sponsored pension plans often invest in real estate and/or real estate companies. Accordingly, the more traditional historical cost basis of accounting used by other real estate operating companies is not appropriate, as it does not provide these tax-exempt investors with relevant financial information.

1.04(b) Unit of Account for Valuation Purposes

The unit of account determines what is being recognized for reporting purposes by reference to the level at which the asset or liability is aggregated (disaggregated) for purposes of applying other accounting pronouncements. The unit of account for the asset or liability should be determined in accordance with the provisions of other accounting pronouncements (ASC Topic 820, Subtopic 10, Section 35).

Fund management makes a policy election to determine the Fund's unit of account for valuation purposes. Fund management's policy should be consistently applied to its real estate investments. Real estate investments may include, but are not limited to, Real estate investments and improvements, Unconsolidated real estate joint ventures, Mortgage and other loans receivable and Other real estate investments. The Fund management also should consider the Fair Value Debt Option guidance under ASC Topic 825, Financial Instruments.

One Unit of Account

Fund Management can elect to value its real estate investments by valuing its net equity position in its underlying real estate investments.

Separate Units of Account

Fund management can elect to fair value its real estate investments by fair valuing each of the assets and liabilities of its real estate investments separately considering the characteristics of the underlying real estate.

The policy election of unit of account for valuation purposes can be made independently of the election of the reporting framework discussed in Section 2 below. Factors for management to consider when making the unit of account election include:

- How a market participant would value the underlying investments.
- The availability of objective and verifiable market evidence to support inputs used to determine the valuation of the underlying investments.

Once management makes the unit of account election, it is management's responsibility to make sure the real estate investment valuations are reported from the appropriate perspective (net equity or assets and liabilities separately).

If a Fund elects to value its real estate investments using one unit of account and presents its financial statements using the Operating Model, management needs to also determine a consistent and rational methodology to allocate the fair value of the net equity position to the underlying assets and liabilities of its real estate investment.

If a Fund elects to value its real estate investments using separate units of account and presents its financial statements using the Non-operating Model, management needs to sum up the fair value of the assets less the fair value of the liabilities to determine the amount to report as its real estate investments on its Statement of Net Assets.

1.04(c) The Reporting Standards require that financial statements report Investments at fair value, for incorporation into the Fund report. Fair value measurements and disclosures under both the Operating and Non-operating presentations are determined in accordance with ASC Topic 820, Fair Value Measurement (ASC 820).

1.04(d) Fair value as defined under ASC 820 is "the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date." Accordingly, assets and liabilities reported at fair value include unrealized gains and losses that would be realized by investors in a hypothetical sales transaction at the date of Statement of Net Assets.

1.05 Relevant accounting and auditing guidance

1.05(a) Relevant accounting guidance contained in authoritative FASB ASC topics have been considered in the development of this edition of the Manual.

1.06 International Financial Reporting Standards (IFRS)

1.06(a) International Financial Reporting Standards (IFRS) is a basis of accounting applied by U.S. and non-U.S. real estate entities. IFRS permits an entity to adopt an accounting policy that elects to report all investment properties either under the fair value or cost accounting model as defined in International Accounting Standards (IAS 40), Investment Properties. An investment property is defined by IAS 40 as land or a building, or part of a building or both held (by the owner or by the lessee under a finance lease) with the intention of earning rental incomes or for capital appreciation or both. The cost model under IFRS is similar to the depreciated cost model under U.S. GAAP.

1.06(b) IFRS defines an investment entity, under IFRS 10, as having similar attributes to those of an investment company defined under U.S. GAAP. However, unlike U.S. GAAP, an entity reporting under IFRS does not need to meet the criteria of an investment entity in order to report real estate under a fair value accounting framework. An essential element of the definition of an investment entity is that it measures and evaluates the performance of substantially all of its investments on a fair value basis in the belief that a fair value framework results in more relevant information than, for example, consolidating its subsidiaries or using the equity method for its interests in associates or joint

ventures. With the issuance of IFRS 13, Fair Value Measurement, the definition of fair value under IFRS generally aligns with the definition of fair value under U.S. GAAP.

1.07 Disclaimers

1.07 GAAP is the primary source when addressing any accounting topic in this Manual. Non-authoritative GAAP is a secondary source when GAAP does not sufficiently address the topic in a comprehensive manner.

FUND LEVEL ACCOUNTING

2.01 Introduction

2.01(a) The Fund Level represents the aggregation of all investments (a Reporting Entity may hold only one investment or multiple investments). In addition, it includes other assets, liabilities, income and expenses, as well as portfolio level debt that are not specifically allocated to a single investment.

2.01(b) As indicated previously, the Operating Model and the Non-operating Model provide alternative presentations while generally resulting in the same net asset values; diversity exists when determining which model is presented. The determination of the appropriate fair value reporting presentation to use is made by the entity's management based on a review of the relevant accounting literature. Reporting Standards require FV GAAP through application of either one of these presentations.

2.01(c) The information contained in this section is separated based upon the applicable reporting presentation.

2.02 Fair Value Net Asset Value ("FV NAV")

2.02(a) The intent of the Reporting Standards is to report the FV NAV of the Reporting Entity. FV NAV represents the fair value of the Reporting Entity's investment in the underlying investments owned (i.e., the fair value of the investments and other assets in excess of the fair value of the liabilities). While not all assets and liabilities under GAAP are required to be measured at fair value, the investments make up the vast majority of the Statement of Net Assets and both the Operating Model and Non-operating Model presentations require investments to be reported at fair value in accordance with ASC 820. Therefore, the FV NAV reported under both the Operating Model and Non-operating model will generally be the same.

2.02(b) It should be noted that there may be circumstances where the FV NAV may differ under the different financial statement presentations, for example, if a Reporting Entity applying the Operating Model does not elect to record its debt at fair value under the Fair Value Option, as further discussed in Section 4.04.

2.03 Overview of Operating and Non-operating Presentations

2.03(a) Operating and Non-Operating Model

This Manual provides a consistent set of accounting standards for the institutional real estate investment community. Entities investing in real estate generally present their financial statements using the Operating Model (i.e., a gross presentation) or Non-operating Model (i.e., a net presentation). Fund management makes an accounting policy election to determine which presentation to utilize. Refer to Sections 2.04 and 2.05 below for further detail on the Non-operating and Operating Models, respectively.

The Reporting Standards require fair value financial information for all investments. The NAV of a Fund should generally be the same under either reporting presentation. Varying interpretations of these two presentations exist. Other bases of presentation that may be used in the global real estate industry are not addressed within this Manual. The determination of the appropriate model to be used by a Fund is made by fund management.

2.03(b) Tax-exempt and taxable Reporting Entities investing in real estate have generally presented their financial statements under the Operating Model and Non-operating Model, respectively. However, diversity in practice exists in how various entities choose or apply either reporting presentation. For example, certain taxable entities may elect to apply the Operating Model (i.e., a gross presentation) in their financial statements for enhanced transparency to the performance of the entity's equity and debt and investments. The differences between the two models are generally related to presentation, and therefore the application of both models to the same investment will generally result in the same net asset value of the Reporting Entity.

2.03(c) The fundamental premise for fair value-based accounting presentations is based on existing U.S. GAAP which require that certain investments held by tax-exempt investors, including defined benefit pension plans and endowments, are reported at fair value. This presentation is supported by FASB ASC Topic 960, Plan Accounting — Defined Benefit Pension Plans (ASC 960), and Governmental Accounting Standards Board (GASB) Codification Section Pe5, Pension Plans-Defined Benefit, and Section Pe6, Pension and Other Postemployment Benefit Plans — Defined Contribution, and is referred to throughout the Manual as the Operating Model.

2.03(d) Over the years, investments made by fund managers have become increasingly complex, and it has become apparent that many of these Funds have attributes similar to those of an "investment company," as set forth in ASC Topic 946, Financial Services — Investment Companies (ASC 946), (significant content derived from the AICPA Audit and Accounting Guide — Investment Companies) (the "AICPA Investment Company Guide"). This authoritative guidance also supports the use of a fair value accounting presentation for investment companies when a Fund meets the requirements to report as an investment company under ASC 946.

2.03(e) GAAP hierarchy is defined in two levels known as authoritative guidance and non-authoritative guidance. All authoritative GAAP is codified within a single source known as the ASC. Authoritative guidance takes precedent over non-authoritative guidance. However, non-authoritative guidance is applied for a particular transaction, item, or event when applicable guidance is not specified within authoritative guidance. As indicated above, ASC 960 is the authoritative accounting source for certain tax-exempt investment vehicles that hold real estate investments, and ASC 946 is the primary source for entities that satisfy the criteria of an investment company. Given the lack of specific authoritative GAAP applicable to a single model for the institutional real estate investment industry, a dual-reporting model prevails in the industry.

2.03(f) Other Common Fund Structures

Many real estate funds adopt complex fund structures to increase flexibility in pricing, tax synergies and access to alternative distribution channels for their shares. A master-feeder fund structure typically comprises one or more feeder funds that invest substantially all of their assets in a master fund. External investors hold equity interests in the feeder funds, while the master fund pools assets of all of its feeder funds and invests them in accordance with its investment strategy. Under current SEC views, the annual reports of feeder funds should contain two sets of financial statements: one for the master fund and the other for the specific feeder fund. Another common fund structure is fund-of-funds, which are investment companies that invest in other investment companies. A typical fund-of-funds structure involves investments in more than one investee fund. A master-feeder structure can also be viewed as a fund-of-funds, but the feeder usually invests substantially all of its assets into one investee fund (the master fund) and the master fund invests in investee funds.

As noted in the SEC's Investment Management Guidance Update No. 2014-11, in the circumstances of both master-feeder funds as well as fund-of-funds, generally, the SEC staff has taken the position that non-consolidated financial statements are most meaningful. For additional guidance around these structures and financial statement presentation, see Chapter 5 of the AICPA Investment Company Guide.

2.03(g) Fund Level Organizational Costs

Newly formed investment companies typically incur organization costs when forming the legal entity to conduct business under the entity's domicile. In accordance with ASC 946, and under ASC paragraph 720-15-25-1, organization costs should be expensed as incurred.

Note: There may be Funds that maintain offering documents or limited partnership agreements that allow the Fund to capitalize and amortize initial organization costs over a pre-determined time period (i.e., 5 years). This could result in differences between US GAAP and FV NAV for the Fund. This Manual recommends that financial statement preparers discuss this scenario, when applicable, with their external auditors and other advisors.

2.03(h) Offering (Syndication) Costs

A newly formed entity may incur offering or syndication costs in connection with raising capital for a Reporting Entity. In accordance with ASC 946, offering costs of closed-end funds should be charged to equity/capital. For open-end funds, offering costs should be treated as a deferred charge and deferred until the beginning of operations and amortized to expense over 12 months.

2.04 Non-operating Model

2.04(a) Introduction

Many investment funds that satisfy the criteria of an Investment Company in accordance with ASC 946 may prepare financial statements under the Non-operating Model. Financial statements prepared under the Non-operating Model report all investments at fair value on a recurring basis. Each presentation may report revenue recognition differently utilizing either the dividend method or the equity in earnings method; however, FV NAV should generally be the same under both methods. ASU 2013-08, Financial Services - Investment Companies (Topic 946): Amendments to the Scope, Measurement, and Disclosure Requirements, was issued in June 2013 and amends the scope, measurements and disclosure requirements in ASC 946. The FASB decided not to address issues related to the applicability of investment company accounting for real estate entities and the measurement of real estate investments at that time. The FASB did not intend for the amendments in this update to change the practice of real estate entities for which it is industry practice to issue financial statements using the measurement principles in ASC 946. As a result, diversity in practice continues to exist where reporting entities may use a combination of presentation attributes of either model. Additionally, the FASB decided to maintain the scope exception in ASC 946 applicable to real estate investment trusts ("REITs"). REITS that exhibit the attributes of an investment company within the framework of ASC 946 may be eligible to report investments at fair value. This Manual recommends that financial statement preparers discuss the applicability of ASU 2013-08 to their financial statements with their external auditors and other advisors.

The Non-operating Model generally utilizes a "net" presentation. The Statement of Net Assets presents real estate investments as a single line item, by presenting the Fund's fair value of its net equity position in each of its real estate investments. The Statement of Operations generally reports investment income as the cash that the Fund receives as Income distributions from real estate equity investments. Any undistributed profits from the investment's operations are reported through change in unrealized gain or loss when the Fund fair values the net working capital of its underlying investment in real estate. However, diversity in practice exists where some Funds reporting under ASC 946 may provide an alternative presentation and the NAV of a Fund should generally be the same under either approach. At this time, authoritative GAAP does not specifically address financial statement presentation as it relates to a real estate entity reporting at fair value.

2.04(b) Election of the Fair Value Option under ASC 825-10

The Fair Value Option under ASC 825-10 permits entities to elect a one-time irrevocable option to measure financial instruments including, but not limited to, notes payable and portfolio level debt at fair value in accordance with ASC 820 on an instrument-by-instrument basis. Further information can be found in Sections 4.04 and 4.05.

2.04(c) Consolidation - Applicability of ASC 810

ASC 810-10-15-12d states, "Except as discussed in paragraph 946-810-45-3, an investment company within the scope of Topic 946 shall not consolidate an investee that is not an investment company." Rather, those controlling financial interests held by an investment company shall be measured in accordance with guidance in Subtopic 946-320, which requires investments in debt and equity securities to be subsequently measured at fair value.

The exception referred to above, discussed in paragraph 946-810-45-3, refers to an instances in which the investment company has an investment in an operating entity (i.e., does not meet criteria of an investment company under ASC 946) that provides services to the investment company, for example, an investment adviser or transfer agent. In those cases, the purpose of the investment is to provide services to the investment company rather than to realize a gain on the sale of the investment. If an individual investment company holds a controlling interest in such an operating entity, consolidation is appropriate.

Additionally, if an intermediate entity such as a blocker corporation or REIT is wholly owned by an investment company and acts as an extension of the investment company's operations and to facilitate the investment strategy, it could be considered for consolidation in accordance with ASC 810.

See section 2.05(c) for additional information.

2.04(d) Consolidation - Applicability to Investment in an Investment Company

GAAP is silent on the topic of when it is appropriate for an investment company to consolidate another investment company in which it holds a controlling financial interest. Accordingly, diversity in practice exists in this area. Refer to the Basis for Conclusion in ASU 2013-08 (BC 62 to 65) for further information on the concerns of the board and stakeholders when they contemplated this issue as part of the Investment Company project.

2.04(e) Equity Method

Under ASC 946, for the non-operating model an investment company cannot apply the equity method of accounting to a noncontrolling interest in another investment company. Such an investment must be measured by an investment company at fair value in accordance with ASC 946-320.

2.04(f) Revenue Recognition

As mentioned above there is diversity in practice regarding revenue recognition under the Non-operating Model presentation. However, revenue is typically recognized when dividends are received from the investee to the extent of undistributed earnings by the investee (e.g., tax basis earnings, GAAP earnings). Dividend income is presented as a component of net investment income. In this presentation, any undistributed earnings by the investee are part of the fair value of the investee and therefore are reflected in the unrealized gain or loss.

Changes in fair value from period to period are reported as changes in unrealized gain or loss on the statement of operations, which is presented separately from net investment income. These gains or losses are realized upon the disposal of an investment.

2.05 Operating Model

2.05(a.1) Introduction

Under the Operating Model, the Statement of Net Assets presents the gross assets and gross liabilities of the Fund's investments in real estate as separate line items. The Statement of Operations presents the gross investment/property level revenue and expenses. Note that consolidation guidance per ASC Topic 810, Consolidation, may be considered such that any Equity Method Investments would be presented as an asset balance within a single financial statement line item.

2.05(a.2) Entities that report under ASC 960 are required to follow ASC 810, Consolidation ("ASC 810"), and ASC 323, Investments – Equity Method and Joint Ventures ("ASC 323"). As indicated above, some entities that report under ASC 946 may elect to present their financial statements under the Operating Model. It is recommended that those entities that present their financial statements based on the Operating Model under ASC 946 consider the consolidation guidance in ASC 810 in determining an accounting policy, including an evaluation of whether or not the investee is a variable interest entity ("VIE"), to determine whether it has a controlling financial interest in the investee and therefore whether consolidation under the operating model is appropriate.

2.05(a.3) Investments must be reported at fair value in accordance with ASC 820. The objective of the Statement of Operations is to present the increase or decrease in the net assets resulting from the entity's investment activities and underlying property operations. Net investment income is a measure of operating results. It is primarily intended to provide a measure of operating activity, exclusive of capitalized expenditures, such as leasing commissions, tenant improvement costs, tenant inducements, and other replacement costs that can be capitalized if in accordance with GAAP. Rental revenue is recognized when it is contractually billable to tenants (i.e., straight-lining of rents is not applicable when real estate is reported at fair value). Expenses are generally recognized when the obligation is incurred. Certain expenses may be based on the investment vehicle's unrealized change in net asset value, including, for example, incentive management fees, and are recognized as a component of the unrealized gain or loss.

2.05(b) Election of the Fair Value Option Under ASC 825-10

The Fair Value Option under ASC 825-10 permits entities to elect a one-time irrevocable option to measure financial instruments including, but not limited to, notes payable and portfolio level debt at fair value in accordance with ASC 820 on an instrument-by-instrument basis. Further information can be found in Sections 4.04 and 4.05.

2.05(c) Consolidation: Applicability of ASC 810

2.05(c.1) Under the Operating Model, a Reporting Entity should generally assess consolidation under ASC 810. Investments may include direct investments in real estate and debt, as well as holdings of controlling equity interests in separate legal entities, which invest in real estate assets. The Fund manager may consider existing authoritative guidance within ASC 810 to determine whether an investment in an investee (e.g., joint venture) represents a VIE to be assessed for consolidation under the VIE model, or whether the investment in an investee should be consolidated in accordance with the voting interest entity model.

2.05(c.2) Under the scope exception referred to in ASC 810-10-15-12(d), an investment company technically should not consolidate an investee that is not an investment company unless the investee is an operating entity that provides services to the investment company. However, it is suggested that a real estate Reporting Entity that qualifies as an investment company and prepares its financial statements under the Operating Model perform the consolidation analysis under ASC 810, including an evaluation of whether the investee is a VIE, to determine whether it has a controlling financial interest in the investee and therefore whether consolidation under the Operating Model is appropriate.

To the extent that ASC 810 is not followed as a result of the preceding paragraph, preparers should consider adopting and applying a consistent accounting policy, for example, by looking at their ownership percentage, rights of the different partners, etc., to determine the most appropriate and meaningful presentation for presenting the investment on a gross basis (akin to a consolidated JV) or net basis (akin to an equity method investment).

2.05(d) Consolidation: Accounting

2.05(d.1a) Entities that report under ASC 960 are required to follow ASC 810. While ownership of a greater than 50% voting interest in an investment is generally considered to be an indication of control, many joint venture investments contain complex governance arrangements that make assessments of control difficult. A multitude of factors must be considered in making a determination of whether consolidation of an investee is appropriate, including a determination of whether or not the investee is a VIE. If investments in entities are not deemed to be controlling interests, the equity method of accounting should be followed if the “significant influence” criterion is met in accordance with ASC 323.

2.05(d.1b) It is suggested that entities that report as investment companies under ASC 946 and utilize the Operating Model presentation follow ASC 810.. Although ASC 946-323-45-1 precludes the use of the equity method of accounting for investment companies, given the use of the operating model presentation for many real estate funds, it is recommended to apply judgment and follow ASC 810 as outlined above. If investments in entities are not deemed to be controlling interests, these

investments should be accounted for as investments in non-consolidated joint ventures, in a similar manner to ASC 323.

2.05(d.2) Under the Operating Model, real estate assets either owned directly by a Fund or reported through the consolidation of an investee are recorded on the Statement of Net Assets at their fair value. If the investee is less than 100% owned, a corresponding credit to noncontrolling interest is recorded at fair value for the noncontrolling interest in the investment. The difference between fair value and the adjusted cost basis of an investment is the unrealized gain or loss associated with the asset and liability, and if applicable, the noncontrolling interest. Changes in fair value from period to period are reported as changes in unrealized gain or loss on the statement of operations, which is presented separately from net investment income. These gains or losses are realized upon the disposal of an investment; however, in order to record a realized gain, the sale is required to meet the criteria within ASC Subtopic 610-20, Other Income – Gains and Losses from the Derecognition of Nonfinancial Assets, and ASC Topic 976, Real Estate – Retail Land (ASC 976). Under ASC 610-20, sales and partial sales of real estate assets are subject to the same derecognition model as all other nonfinancial assets.

2.05(d.3) The consolidation process outlined in ASC 810 requires that the noncontrolling interest continues to be allocated its share of losses even if that allocation results in a deficit noncontrolling interest balance. This standard also requires the acquirer to measure a noncontrolling interest in the acquiree at its fair value at the acquisition date. The noncontrolling interest would continue to be recorded at fair value assuming a hypothetical liquidation at fair value. An entity should perform an assessment of its noncontrolling interest's rights and consider whether the noncontrolling interest is a redeemable equity security within the scope of ASC 505-10-50.

2.05(d.4) In the footnotes or in the statement of changes in net assets, an entity is required to provide a reconciliation of the beginning and the ending carrying amounts of (1) net assets attributable to the parent entity (2) net assets attributable to the noncontrolling interest, and (3) total net assets.

2.05(d.5) In the footnotes, a separate schedule that shows the effects of any changes in a parent's ownership interest in a subsidiary on the equity attributable to the parent. Entities are required to disclose both a reconciliation of net assets (paragraph c) and a separate schedule of changes in ownership (paragraph d).

2.05(d.6) Revenue Recognition: The difference between the fair value and the adjusted cost basis of an investment is the unrealized gain or loss associated with the asset and liability, and if applicable, the noncontrolling interest. Changes in fair value from period to period are reported as changes in unrealized gain or loss on the statement of operations, which is presented separately from net investment Income 2.05 (d.2)

Further, rental revenue is recorded as described in section 4.10 below.

2.05(e) Accounting for Investments in Non-consolidated Joint Ventures

Investors with non-controlling investments in investees (e.g., partners in joint ventures) accounted for under the equity method of accounting should record as investment income only their share of the investee's net income or loss, determined in accordance with GAAP on the fair value basis of accounting. The investment is recorded at fair value with the difference between the fair value and the basis recorded as an unrealized gain or loss. This amount is exclusive of items such as depreciation, amortization, and deferred rent, but would include promote reallocations, as appropriate. ASC 970-323-35-17 suggests that stipulated income allocation ratios should not be used if cash distributions and liquidating distributions are determined on some other basis (i.e., income should be allocated first on behalf of any preferred returns or interest, and then to the respective partners in proportion to their contractual ownership interests, etc.). Intercompany items, such as interest on loans by an investor to an investee should be eliminated to the extent of the investor's economic interest in the venture, as if the investee were consolidated.

For all investment companies that follow ASC 946 and utilize the Operating Model presentation, investments in non-consolidated joint ventures are initially recorded at the original investment amounts, are subsequently adjusted for the entity's share of undistributed earnings and losses (including unrealized and realized gains and losses) from the underlying entities from the dates of formation, are increased by additional contributions, and are reduced by distributions received.

2.06 Capital / Equity Transactions

2.06(a) Contributions/Redemptions

Investment partnerships shall record capital contribution and redemption amounts as of the date required by the partnership agreement. Cash received for capital contributions before the required date shall be recorded as an advance capital contribution liability and subsequently reclassified to equity upon the required capital call date.

2.06(b) Dividends

Both closed-end and open-end investment companies record distribution liabilities on the legal date of declaration. For closed-end investment companies, a purchaser typically is not entitled to a dividend for shares purchased on the ex-dividend date. Open-end investment companies record the liability on the ex-dividend date to properly state the net asset value at which sales and redemptions are made.

2.07 Accounting for Uncertainty in Income Taxes

ASC 740, Income Taxes, provides guidance for how uncertain tax positions should be recognized, measured, presented and disclosed in the financial statements. ASC 740 requires the evaluation of tax positions taken in the course of preparing a Fund's tax returns to determine whether tax positions are "more-likely-than-not" of being sustained by the applicable tax authority. Tax benefits of positions not deemed to meet the more-likely-than-not threshold would be recorded as a tax expense

in the current year. Many real estate funds are held through transparent or flow through entities so that the taxable income is reported on separate tax filings including investor K-1s. Therefore, the tax impact of certain positions (including the character of income and gains, investor qualifications/status, classification of income for The Employee Retirement Income Security Act of 1974 (ERISA) reporting, etc.) may or may not affect the GAAP basis financial reporting. In preparing financial statements of real estate entities, tax positions to be reviewed and analyzed may include non-transparent entities at or below the funds, international investments subject to tax in other jurisdictions, and other special considerations including but not limited to the following:

- Tax Exempt Entity Status
- REIT Status
- State and Local Tax Determinations/Nexus
- Unrelated Business Taxable Income

INVESTMENT LEVEL ACCOUNTING

3.01 Introduction

3.01(a) This section outlines the required accounting policies to be followed for accounting at an investment level for interests in real estate investments. At the Fund level, different reporting entities may follow different fair value accounting and reporting presentations (i.e., Operating Model or the Non-operating Model). The topics discussed in this section are generally applicable to both fair value presentations.

3.01(b) See Property Level Accounting in Section 4 for information relating to realized and unrealized gains and losses as well as information regarding the accounting for the various components comprising the underlying real estate assets.

3.01(c) Investments in real estate are made using various investment structures. Included in this section is guidance relating to the following investment structures:

- Investments in Non-Participating Mortgage Loans Receivable
- Investments in Participating Mortgage Loans Receivable
- Investments in Joint Ventures, Limited Partnerships, or Limited Liability Companies.

3.02 Investments in mortgages and other loans receivable: General discussion

3.02(a) There are primarily two types of mortgage loan investments held by Funds: non-participating and participating mortgage loans. A non-participating mortgage loan is an investment that generally entitles the lender to payments of contractual principal and interest that do not increase based on the underlying operating results of a property.

3.02(b) A participating mortgage is an investment that generally consists of four parts: (1) ”base interest” payments at contractually stated fixed or floating rates; (2) principal; (3) ”contingent interest” payments where the lender is paid a percentage of property net operating income or cash flow after debt service; and (4) “additional contingent interest,” which is in the form of lender participation in the appreciation in value of the underlying property.

3.02(c) Usually the loan terms of a participating mortgage are set somewhat more favorably to the borrower than those of a non-participating mortgage on the same property. Common terms on a participating mortgage historically include high loan-to-value ratios, base interest rates which are lower than comparable non-participating mortgages, and the occasional structure that may allow for a deferral of interest between the basic interest coupon and some lower “pay rate,” typically during development and lease-up. The deferral may be paid when cash flow from net operating income is sufficient or may be added to the loan balance and be payable in full only at maturity.

3.02(d) The contingent interest component of a participating mortgage often represents a lender’s right to a portion of the adjusted net cash flow generated by the collateralizing property. Typically, certain

expenses such as but not limited to, legal or other professional fees related to ownership of the property (i.e., not directly related to the operating activities of the property) are not permitted as deductions from gross income for determining the amount in which the lender participates in contingent interest. Often a reserve for replacements, or for tenant improvements, leasing commissions, and capital expenditures, is set aside from net operating income before the lender participates in the remainder.

3.02(e) The additional contingent interest or equity conversion component often specifies a hurdle rate that the lender is entitled to reach from basic interest, contingent interest and additional contingent interest before the borrower participates in any proceeds from sale.

3.02(f) ASC 326, Financial Instruments – Credit Losses, is effective for nonpublic entities for fiscal years beginning after December 15, 2022, including interim periods within those fiscal years. This standard does not have a significant impact on investments in mortgages and other loan receivables reported at fair value due to a scope exception for items reported at fair value through the statement of operations.

3.03 Accounting for non-participating mortgage loans receivable

3.03(a) Non-participating mortgage loans receivable should be carried on the Statement of Net Assets at their fair value. The difference between fair value and the adjusted cost basis of a mortgage loan is the unrealized gain or loss on investment. Valuation changes in fair value from period to period are reported as unrealized gain or loss on the statement of operations and are presented separately from net investment income. Such unrealized gains or losses are realized upon the disposition of the investment either through a sale of the mortgage note receivable (in accordance with the guidance in ASC 860, Transfers and Servicing) or through paydown of the mortgage note receivable by the borrower at maturity (or prior to maturity in the case of early prepayments.).

3.03(b) The initial cost basis of a non-participating mortgage loan should include all direct costs of originating or acquiring the loan investment. However, the entity's management should assess if such costs are a component of the loan's reported fair value under ASC 820 or should be reported as an unrealized loss upon acquisition of the loan. Such costs include acquisition fees paid to investment advisors, and/or other professional fees (e.g., legal fees) associated with the closing of a new investment.

3.03 (c) ASC 946 does not provide specific guidance pertaining to fee income associated with loan originations. As a result, there are two methodologies that could be considered when determining the appropriate accounting for such fees.

- Recognized as income when received - It is common practice for fair value funds to recognize origination fees when collected, typically at investment inception, in accordance with the terms of the related investment agreements. This is consistent with guidance per ASC 825-10-25-3 (as outlined above) for investments held at fair value.

- Capitalized and deferred, net of origination costs – As outlined above within Section 2.03(b), for loans held at cost, the origination fees are net with origination costs and deferred over the life of the related loan under the effective interest method.

Note: Certain fair value funds may elect to capitalize and amortize loan origination fees over the life of the loan. In these instances, the preparers of the financial statements may choose to analogize the accounting treatment to the treatment of interest for premiums or discounts. Section 2.122, *Interest*, of the *AICPA Audit and Accounting Guide: Investment Companies* dated August 1, 2023 (the "Investment Company Guide") outlines the following:

- As stated in FASB ASC 946-320-35-20, premiums and discounts should be amortized using the interest method. FASB ASC 835-30-35-2 states that the difference between the present value and the face amount of the net investment should be treated as a discount or premium and amortized as interest expense or income over the life of the note in such a way as to result in a constant rate of interest when applied to the amount outstanding at the beginning of any given period.

3.03(d) The carrying amounts of interest receivables currently due (generally one year or less) are generally considered to approximate fair value. Therefore, for fair value reporting, interest receivable currently due may be reported at its undiscounted amount provided that the results of discounting the carrying amount would not be material and that receipt can reasonably be assured.

3.03(e) Interest income associated with any non-participating mortgage loan receivable is reported in net investment income. Valuation adjustments are reported as unrealized gains and losses. The recognition of base interest income should be based on the contractual terms of the loan unless the loan is considered non-performing under GAAP. For mortgage loans with fixed and determinable rate changes, base interest income should be accounted for when the change contractually occurs rather than using an effective interest or straight-line method.

For non-performing loans (e.g., the borrower is unable to fulfill its payment obligations), interest income is recognized under a cash method whereby payments of interest received are recorded as interest income provided that the amount does not exceed that which would have been earned based on the contractual terms of the loan.

3.03(f) The fair value of a non-participating mortgage loan and any accrued non-current interest may be based on the discounted value of the total future expected net cash flows. The selection of an appropriate discount rate should reflect the relative risks involved and interest rates charged for similar receivables. The determination of fair value must also take into consideration the underlying collateral, credit quality of the borrower, and any related guarantees, as well as the specific terms of the loan agreement. The fair value of the mortgage loan and any accrued non-current interest should not exceed the value of the underlying collateral and any related guarantees. Accrued non-current interest is typically added to the principal amount, whereas current interest receivable is separately disclosed.

3.03(g) Modification of mortgage terms should be accounted for through an adjustment of fair value and recorded through unrealized gain or loss in the statement of operations.

3.04 Accounting for participating mortgage loans receivable

3.04(a.1) Because of the participation feature inherent in these loans, and the fact that the lender usually provides a significant portion, if not all, of the funds necessary to acquire, develop, or construct the property, accounting for participating mortgages should be determined based upon the following guidance, if applicable.

3.04(a.2) A participating mortgage may have the characteristics (see ASC 310-10-25, paragraphs 19-20) of either a loan, a noncontrolling equity investment in a joint venture, or a controlling interest subject to consolidation for accounting purposes, depending on the facts and circumstances. For the latter two categories, the investment should be accounted for using the guidance provided in the discussion of joint ventures appearing in Section 3.05 and 3.06 or in the discussion on real estate in Section 4.02.

3.04(b) Participating mortgages not considered joint ventures, or investments in real estate in accordance with ASC 310 should also be carried on the Statement of Net Assets at their fair value. The difference between fair value and the adjusted cost basis of a mortgage loan is the unrealized gain or loss associated with the asset. Changes in fair value from period to period are reported as changes in unrealized gain or loss on the statement of operations, which is presented separately from net investment income. Such unrealized gains or losses are realized upon the disposition of the investment, either through a sale of the mortgage note (in accordance with the guidance in ASC 860, Transfers and Servicing) or through paydown of the mortgage note by the borrower at maturity (or prior to maturity in the case of early prepayments).

3.04(c) The initial cost basis of a participating mortgage loan should include all direct costs of originating or acquiring the loan consistent with ASC 310-20. Such costs include acquisition fees paid to investment advisors and/or other professional fees (e.g., legal fees) associated with the closing of a new investment. However, the entity's management needs to assess the fair value of the loan under ASC 820 and whether an unrealized loss should be recognized on day one of holding the loan.

3.04(d) See Section 3.03(c) in this Manual for additional information pertaining to fee income associated with loan originations.

3.04(e) Interest income associated with any participating mortgage loan is reported in net investment income. Valuation adjustments are reported as unrealized gains and losses. The recognition of base interest income should be based on the contractual terms of the loan unless the loan is considered non-performing under GAAP. For mortgage loans with fixed and determinable rate changes, interest income should be accounted for based on when the change contractually occurs rather than using an effective interest or straight-line method.

For non-performing loans, generally the method for interest recognition is the cash method where payments of interest received are recorded as interest income provided that the amount does not exceed that which would have been earned based on the contractual terms of the loan.

Contingent interest income from operating cash flows is also recorded by the lender as part of net investment income. Additional contingent interest received from disposal or refinancing of the underlying property is recorded as part of realized gains and losses.

3.04(f) The fair value of a participating mortgage investment is equal to the discounted value of the total future cash flows expected from the investment. The value of the mortgage loan may not exceed the value of the underlying real estate plus any qualifying guarantees. The discount rate used in the valuation should reflect the risk/return characteristics of the participating investment structure. The valuation may be performed with different discount rates for the different sources of the anticipated cash flows; a "debt" rate may be associated with the nonparticipating cash flows, and an "equity" rate may be associated with the participation cash flows. In all cases the economic substance of the transaction must be taken into account in determining the value of the investment.

3.04(g) Modification of mortgage terms should be accounted for through an adjustment of fair value and recorded through unrealized gain or loss in the statement of operations.

3.05 Investments in joint ventures: General

3.05(a) Joint ventures are a common form of ownership for Funds and institutional investors in real estate. The venture is typically a legally formed limited partnership or limited liability company between the Fund/institutional investor and a real estate developer/operator.

3.05(b) Real estate investments are often structured as joint ventures because these structures provide the ability to share risks and rewards among the participants. The Fund/institutional investor typically own the greater share of the joint venture and provide most of the equity invested into the project. Such investment may be in the form of equity capital, loans to the venture, or both. The Fund/institutional investor's operating partner is typically the real estate developer/operator for the joint venture. Depending on the terms of the venture agreement, distributions of the venture's cash flows may not align with the legal ownership interests of the partners and will instead follow the hypothetical liquidation terms of the venture agreement. These clauses may give preferential return of cash flows to either the institutional investor or the developer/operator partner depending on the agreement terms.

3.06 Investments in joint ventures: Accounting

3.06(a) The appropriate fair value accounting for investments in joint ventures in the primary financial statements depends upon the reporting presentation utilized. See Section 2, Fund Level Accounting, in this Manual for a discussion of the appropriate accounting presentations and sources of additional guidance.

3.06(b) When investments in joint ventures are reported at fair value, the difference between fair value and the adjusted cost basis of an investment is reported as unrealized gain or loss. As discussed in greater detail below, changes in fair value from period to period are reported as changes in unrealized gain or loss on the statement of operations, which is presented separately from net investment income. Unrealized gains or losses are recognized as realized gains or losses upon the disposal of an investment.

3.06(c) The initial cost basis of an investment in a joint venture should include all direct costs of obtaining the investment. Such costs include acquisition fees paid to investment advisors and/or other professional fees (e.g., legal fees) associated with the closing of a new investment. However, the entity's management needs to assess the fair value of the investment under ASC 820 and whether an unrealized loss should be recognized on day one of holding the investment.

3.06(d) An investment in a joint venture is subsequently adjusted to report changes in fair value that may include, but are not limited to, undistributed net investment income and/or changes in the fair value of the underlying net assets. Such changes in fair value are reported in the statement of operations as an unrealized gain or loss during the period in which the change in fair value occurs.

3.06(e) To the extent that the investor has advanced funds to the joint venture in the form of loans, all outstanding principal and non-current interest receivable should also be included in the cost basis. The aggregate investment should be presented on the statement of net assets as a single caption, (i.e., "Investment in Joint Venture") and presented as a single investment on the schedule of investments.

3.06(f) The determination of the fair value of an investment in a joint venture requires: (1) the valuation of the underlying assets and liabilities of the joint venture; and (2) the analysis of a hypothetical liquidation as of the reporting date at fair value in accordance with the distribution provisions of the joint venture agreement. Consideration should be given to all incentive fees and preferred returns included in the joint venture agreement in determining the hypothetical liquidation at fair value of the joint venture. Fair value is defined by ASC 820-10-20 as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. Transaction costs are not included in determining the fair value of the investment. Hypothetical liquidation at fair value may not necessarily reflect the exit price of an entity's joint venture investment. Consideration should be given to what a market participant would be willing to pay as of the reporting date.

3.06(g) ASC 820-10-35-59 permits, as a practical expedient, a Reporting Entity to measure fair value of an investment, that is within the scope of the amendments, on the basis of net asset value per share of the investment (or its equivalent) if the net asset value of the investment (or its equivalent) is calculated in a manner consistent with the measurement principles of ASC 946 as of the Reporting Entity's measurement date.

Note: The scope is defined in ASC 820-10-15-4 through 15-5

3.06(h) ASU No. 2015-07, Disclosures for Investments in Certain Entities That Calculate Net Assets Value per Share (or Its Equivalent), removes the requirement to categorize within the fair value hierarchy all investments for which fair value is measured using the net asset value per share as a practical expedient. This ASU also removes the requirement to make certain disclosures for all investments that are eligible to be measured at fair value using the net asset value per share practical expedient. Rather, those disclosures are limited to investments for which the entity has elected to measure the fair value using the practical expedient.

3.06(i) ASC 230-10-45 clarifies the treatment of distributions received from investments in joint ventures due to diversity in practice.

An entity can make an accounting policy election to evaluate distributions received from investments in joint ventures based on either: (1) the "look-through approach" or (2) the "cumulative earnings" method.

Under the look-through approach, the classification of cash distributions within operating activity (return on investment) or within investing activity (return of investment) is based on specific facts and circumstances and the nature of the actual distribution. For example, distributions made from the sale of real estate or a refinancing would typically be classified as an investing activity, whereas distributions made from excess operations would typically be classified as an operating activity.

Under the cumulative earnings approach, cash dividends received are classified as returns on investment (i.e., operating cash inflows) unless the amount of cumulative dividends received exceeds the entity's share of the investee's cumulative earnings, in which case they are classified as returns of investment (i.e., investing cash inflows).

3.07 Accounting for Non-Controlling Interest

3.07(a) The appropriate fair value accounting for a noncontrolling interest in the primary financial statements depends upon the reporting presentation utilized. See Section 2, Fund Level Accounting, in this Manual for a discussion of the appropriate accounting presentations and sources of additional guidance.

3.07(b) When a consolidated joint venture is reported at fair value, the noncontrolling interest for the portion not owned by the Fund should be reported at fair value. ASC 810 requires noncontrolling interests to be classified as a separate component of equity, distinct from the equity attributable to the controlling shareholders, on the statement of net assets and statement of changes in net assets.

3.07(c) The initial cost basis of a noncontrolling interest should include all amounts funded from the noncontrolling interest member into the joint venture. Such costs include acquisition fees paid to investment advisors and/or other professional fees (e.g., legal fees) associated with the closing of a new investment.

3.07(d) The noncontrolling interest is subsequently adjusted to report changes in fair value that may include, but are not limited to, undistributed net investment income and/or changes in the fair value of the underlying net assets. Such changes in fair value are reported in the statement of operations as income attributable to noncontrolling interests during the period the change in fair value occurs.

3.07(e) The determination of the fair value of a noncontrolling interest requires: (1) the valuation of the underlying assets and liabilities of the joint venture; and (2) the analysis of a hypothetical liquidation as of the reporting date at fair value in accordance with the distribution provisions of the joint venture agreement. Consideration should be given to all incentive fees and preferred returns included in the joint venture agreement in determining the hypothetical liquidation at fair value of the noncontrolling interest.

3.07(f) ASC 810-10-45-18 to ASC 810-10-45-21 requires net income or loss attributable to the controlling and noncontrolling investors to be presented separately on the statement of operations. The portion attributable to the noncontrolling interest member would typically include the proportionate share of net income and unrealized/realized gain or loss attributable to the noncontrolling interest member.

3.07(g) A noncontrolling interest member is considered an owner. In accordance with ASC 230, dividends paid to a noncontrolling interest member should be classified as financing activities. Cash paid to acquire a noncontrolling interest, or cash received from the sale of a noncontrolling interest, should be classified as a financing activity when the Fund maintains control of the investment. Cash received from a sale should be classified as an investing activity when the Fund loses control of the investment.

3.07(h) When calculating the net investment income and expense ratios for Financial Highlights, the Fund should consider whether it is appropriate to adjust the numerator to remove the noncontrolling interest member's proportionate share of net investment income and expenses, respectively.

3.08 Accounting for contingencies

3.08(a) For all acquisitions, the acquirer should recognize as of the acquisition date, all of the assets acquired, and liabilities assumed that arise from contingencies related to contracts (referred to as contractual contingencies) and measure them at their acquisition-date fair values.

3.08(b) For all other contingencies (referred to as noncontractual contingencies), the acquirer shall assess the contingency in accordance with ASC 450, Contingencies, as appropriate.

3.08(c) It may be necessary to utilize probability weighted discounted cash flows or other complex valuation models in order to value such contingent considerations. The acquirer needs to further determine if such consideration should be recorded as an asset, liability, derivative instrument or equity.

3.09 Accounting for forward purchase commitments

3.09(a) An entity should assess whether entering into a forward purchase commitment results in holding a variable interest in a variable interest entity, or "VIE" (i.e., the entity that holds the real estate). ASC 810-10-55-80 through ASC 810-10-55-86 should be reviewed when concluding on this matter. Particular consideration should be given as to whether the Reporting Entity: a) has rights to terminate the forward purchase commitment for any reason, including if the third party, (i.e., the developer), does not perform, AND, b) whether those rights are substantive. If the entity determines it holds a variable interest, it must then determine if it is the primary beneficiary of the VIE under the provisions of ASC 810, and accordingly consolidate the accounts of the VIE. An entity should also consider whether the forward purchase commitment should be valued based on the nature of the agreement. It would generally be appropriate to record unrealized gains (losses) on the forward commitment if there is a change in the value of this agreement.

3.09(b) Some disclosures a Fund might consider for its forward purchase commitments are as follows: project name, property type, location, authorized commitment, costs spent to date, expected funding date, and any other significant terms or considerations.

3.10 Accounting for financing costs

3.10(a) Costs may be incurred in connection with obtaining financing for the Fund or the investment — either secured or unsecured. The Fair Value Option under ASC 825-10 permits entities to elect a one-time option that is irrevocable to measure financial instruments including, but not limited to, notes payable and portfolio level debt at fair value on an instrument-by-instrument basis (see Sections 4.04 and 4.05). ASC 825-10-25-3 states that "upfront costs and fees related to items for which the Fair Value Option is elected shall be recognized in earnings as incurred and not deferred". Under GAAP, for those entities that have not adopted the Fair Value Option under ASC 825-10, debt costs will continue to be deferred and amortized to interest expense using the effective interest method (see 3.10(b)).

3.10(b) ASC 835-30 requires that unamortized financing costs be presented as a reduction of the carrying amount of the related debt balance on the Statement of Net Assets, rather than separately presented as an asset. For those entities that do not elect the Fair Value Option, the amortization of financing costs will continue to be recorded as a component of interest expense on the statement of operations.

3.10(c) ASC 835-30-S35-1 and ASC 835-30-S45-1 relates to financing costs associated with a line-of-credit arrangement. These costs will continue to be presented as an asset and amortized over the term of the arrangement.

3.11 Investment Advisory fees

3.11(a) General

Real estate investment advisory fees may include acquisition, asset management, disposition, financing, and incentive fees. These fees are generally paid by the Fund to the Advisor and reflected in the Fund financial statements. However, if these fees are paid from the investor(s) to the Advisor directly, they would not be reflected in the Fund financial statements, but should be considered for disclosure in the footnotes

3.11(b) Acquisition, Origination and Financing fees

Acquisition fees are considered a component of the acquisition cost of a property and, therefore, are included in the cost basis of the real estate asset as are other acquisition-related costs. They are included as part of the cost when comparing cost to value to determine realized or unrealized gain or loss under both the Operating Model and Non-operating Model. In circumstances where an investment company is acquiring an investment, the acquisition or transaction costs associated with the investment acquisition should be capitalized as part of the cost of the investment. However, reporting a newly acquired property at fair value may result in an unrealized loss on day one because the reported fair value of a property would not take into account related acquisition costs if there are no other valuation changes (see 4.02b).

Origination Fees paid to an advisor by the Fund generally compensate an advisor for their services rendered in originating mortgage loans receivable. These fees are generally expensed as incurred and reported as a component of net investment income.

Financing Fees generally compensate an advisor for their services rendered for a loan payable that the advisor arranges on behalf of the investment. These fees are generally accounted for as described by 3.10.

3.11(c) Asset Management Fees

Asset management fees are generally expensed as incurred and reported as a component of net investment income.

3.11(d) Disposition Fees

Disposition fees are typically paid when an investment is sold and calculated as a percentage of the sales price. The fee generally compensates a real estate advisor for their services rendered in an investment disposition, including sales marketing, negotiating, and closing. As this fee is not earned until the work is performed or substantially performed, the fee is generally recognized as a cost of sale in the period in which the investment is sold and is not considered as a component of fair value prior to the sale date. (Disposition fees that are substantively incentive fees should be measured and recognized as incentive fees.

3.11(e) Incentive Fees and Promote Reallocations

3.11(e.1) Incentive fee arrangements and calculations vary widely, but generally these fees are paid after a predetermined investment performance return has been attained. For example, these fees may be

payable upon, actual or constructive sale of a real estate investment or portfolio, when cash flows from operating or capital distributions exceed some threshold, or at certain measurement dates during the hold period based upon a hypothetical sale of a real estate investment or portfolio.

3.11(e.2) Incentive fees earned by an investment advisor should be recognized as a payable as if all assets were sold and liabilities were settled at the date of the Statement of Net Assets. The calculation of the amount earned is specific to the related real estate advisory agreement, but generally the calculation should assume that the investment or Fund is liquidated at its fair value as of the reporting date and cash proceeds are distributed to the investors. An expense and liability should be recorded for the amount of the incentive fee, although not necessarily currently payable.

3.11(e.3) The related impact of recording a liability for an incentive fee should be either (1) *Changes in incentive fees that result from meeting and exceeding operating result goals are expensed as a component of net investment income*; or (2) *Changes in incentive fees and promotes (carried interest) that are earned based on changes in an investment's fair value are recorded as a change in unrealized gain or loss.*

3.11(e.4) In the real estate industry, incentive fees are typically based on changes in fair value and therefore reduce the realized or unrealized gains, as opposed to the net investment income of the fund. Incentive fees based on components of investment income, are included in net investment income.

3.11(e.5) Promote reallocations that would be due to a general partner or managing member in the manner described in 3.11(e.2) should not be expensed, but rather should be reflected as a reallocation of capital from the limited partners to the general partner in the Statement of Changes in Net Assets. However, within the ratio calculations of the financial highlight's disclosure, regardless of whether the promote allocations are presented as an expense or a reallocation of capital between partners, the impact of the incentive fee should be presented as a separate expense line item within the calculation. See chapter 7 of the AICPA Investment Company Guide for more detail.

3.11(f) Related Party Fees and Affiliate Transactions

3.11(f.1) Related parties are defined in the glossary to the FASB Codification and include, but are not limited to: affiliates of the entity, principal owners of the entity, management of the entity, parties over which the entity has significant influence and parties that have significant influence over the entity. An affiliate is defined in the glossary as a party that, directly or indirectly through one or more intermediaries, controls, is controlled by, or is under common control with an entity.

3.11(f.2) Related party fees and affiliate transaction arrangements should be properly disclosed in the financial statements, regardless of how significant or quantitatively immaterial the amounts involved are. The investment advisor or manager should seek to provide full transparency to fund investors regarding all fees and arrangements where an affiliate entity provides services or is otherwise involved in a particular fund or separate account.

Per the AICPA Investment Company Guide paragraph 7.118, "Amounts paid to affiliates or related parties (such as advisory fees, administration fees, distribution fees, brokerage commissions, and sales charges) should be disclosed, in accordance with FASB ASC 850. Significant provisions of related-party agreements, including the basis for determining management, advisory, administration, or distribution fees, and, also, other amounts paid to affiliates or related parties should be described in a note to the financial statements."

3.11(f.3) ASC 850 also states that transactions between related parties are considered to be related party transactions even though they may not be given accounting recognition. For example, an entity may receive services from a related party without charge and not record receipt of the services. While not recorded, their disclosure is required, nonetheless. Refer to the related party fees and affiliate transactions footnote in the illustrative financial statements.

PROPERTY LEVEL ACCOUNTING

4.01 Introduction

4.01(a) This section outlines the required accounting policies to be followed for underlying real estate investments accounted for at the property level, in order to provide consistent accounting information across Funds for attribution analysis, benchmark reporting, and reporting to the NCREIF Property Index (NPI). In addition, under the Operating Model, financial statements prepared for properties are accounted for in this manner and utilized accordingly for consolidation purposes.

4.01(b) Regardless of the form of investment held, the underlying real estate assets include all investments in land, buildings, construction in progress, tenant improvements, tenant allowances, furniture, fixtures and equipment, leasing commissions, capitalized leasehold interests, capitalized interest, capitalized real estate taxes, and real estate to be disposed. Under the fair value basis of accounting, real estate assets are carried on the Statement of Net Assets at their estimated fair value. Changes in fair value from period to period are recognized as unrealized gains or losses until sale or disposition of an interest in the real estate investment.

4.01(c) Under the fair value accounting presentations, net investment income is not intended to approximate net income that would be reported under the historical cost basis accounting model. Among other differences, net investment income under the fair value accounting presentations does not include the effect of rent normalization (i.e., straight-line rent) under ASC 842-30-25, cost-based depreciation or amortization of most capitalized expenditures, or impairment accounting provisions.

4.02 Determination of real estate fair value

4.02(a) ASC 820 focuses on how to measure fair value. ASC 820 does not introduce any new requirements mandating the use of fair value; instead, it unifies the meaning of fair value within GAAP and expands disclosures about fair value measurements. It also introduces a fair value hierarchy to classify the source of information used in fair value measurements (i.e., market based or non-market-based inputs).

4.02(b) ASC 820-10-20 defines fair value as, “the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date.” This definition retains the exchange price notion in earlier definitions of fair value. However, the definition focuses on the price that would be received to sell the asset or paid to transfer the liability (an exit price), not the price that would be paid to acquire the asset or received to assume the liability (an entry price). The fair value of an asset or liability is a market-based measurement. Therefore, the fair value measurement should be based on the highest and best use assumptions that market participants would use in pricing a nonfinancial asset such as real estate, regardless of whether the use by the Reporting Entity is different.

4.02(c) The fair value measurement in ASC 820 assumes that the transaction to sell the asset occurs in the principal market for the asset or in the absence of a principal market, the most advantageous market for the asset. The principal (or most advantageous) market is the market with the greatest volume and level of activity for the asset or liability, presumably the market in which the Reporting Entity transacts.

4.02(d) ASC 820 requires that a fair value measurement should maximize the use of observable inputs and minimize the use of unobservable inputs. Disclosure of the valuation techniques and inputs are required for each class of Level 2 or Level 3 assets or liabilities. If the fair value measurement has significant Level 3 inputs, related footnote disclosures are required to be included on a gross presentation basis (i.e., real estate investments and mortgage loans payable shown separately). Most real estate valuations generally include significant unobservable inputs, and the related. Valuations should reflect the Reporting Entity's assumptions that market participants would use, including assumptions about risk. Such assumptions should be developed based on the best information available without undue cost and effort. It is the source of the input that drives the classification, not approach or specialist used to determine fair value. For instance, an external appraiser's valuation of a property utilizing a discounted cash flow model based on the specific cash flows of said property would be considered a technique that uses Level 3 inputs.

The class of the asset or liability is determined by the nature and risks of the instruments and will often be at a more disaggregated level than the financial statement line-item level.

All disclosures indicated below are required by public entities. Private entities are required to disclose only items (1) and (3):

1. Quantitative disclosure (i.e., tabular format) about unobservable inputs used for all Level 3 fair value measurements;
2. For fair value measurements categorized as Level 3, qualitative disclosures (i.e., narrative form) about the sensitivity of the fair value measurement to changes in unobservable inputs used if a change in those inputs to a different amount might result in a significantly higher or lower fair value measurement;
3. If applicable, a Reporting Entity's use of a nonfinancial asset in way that differs from the asset's highest and best use when that asset is measured or disclosed at fair value;
4. For fair values disclosed but not reported in the financial statements include:
    a. the level in which the fair value is categorized;
    b. for Level 2 and 3 fair values a description of the valuation techniques and inputs used, and the reason for any change in the valuation technique, if applicable;
    c. if the highest and best use of a nonfinancial asset differs from its current use, disclose that fact and why the nonfinancial asset is being used in a manner that differs from its highest and best use;
5. The changes in unrealized gains and losses for the period included in other comprehensive income for recurring Level 3 fair value measurements held at the end of the reporting period.

6. The range and weighted averages of significant unobservable inputs used to develop Level 3 fair value measurements (or other quantitative information such as the median or arithmetic average in lieu of the weighted average if determined more appropriate).

ASC 820 clarifies the meaning of the terms "valuation technique" and "valuation approach" as used in fair value literature. It also amended a related disclosure requirement. The guidance indicates that valuation techniques are more granular than valuation approaches and explains that valuation techniques are used consistent with a particular approach. Along with clarifying the terms, the technical correction amended the disclosure requirement pertaining to changes in valuation technique or approach. Companies are now required to disclose changes in either (or both) a valuation approach or technique for each class of instrument (not for each individual instrument).

4.02(e) The fair value of property generally held for investment should be valued in a manner consistent with the Reporting Standards Property Valuation Standards. (See the Reporting Standards Property Valuation Standards for more information.)

4.02(f) Under ASC 820, the price in the principal (or most advantageous) market used to measure the fair value of the asset or liability shall not be adjusted for transaction costs. Transaction costs shall be accounted for separately, however for entities that follow ASC 960, Plan Accounting — Defined Benefit Pension Plans, ASC 960-325-35 provides guidance on fair value and requires fair value to include an estimate of costs to sell.

4.02(g) The fair value of a real estate asset should not include any effects of a related above- or below-market mortgage debt, except when debt is assumed on acquisition. For debt assumed at acquisition, the impact of above/below fair value debt is assigned to the cost basis of the related debt with an offset to the related real estate asset acquired (this is applicable whether or not the debt is reported at fair value under the Fair Value Option). The real estate and the related mortgage are to be shown separately on the Statement of Net Assets at their initial fair value.

4.02(h) The AICPA's guide "Valuation of Portfolio Company Investments of Venture Capital and Private Equity Funds and Other Investment Companies" published in August 2019, contains non-authoritative guidance intended to harmonize views of industry participants, auditors and valuation specialists. The guide is applicable for real estate valuation.

4.03 Determination of the cost basis of real estate assets

4.03(a) The initial cost basis of a real estate asset includes direct costs of acquiring the real estate asset under both the Operating Model and the Non-operating Model. For development properties, the cost basis of these assets should also include costs capitalized during the development period including interest, insurance, and real estate taxes, reduced by income from incidental operations. Authoritative accounting literature, including ASC 835-20, Capitalization of Interest, and ASC 970, Real Estate-General, provides guidance relating to the appropriate cost capitalization criteria. Direct costs of acquisition are considered part of the acquisition cost of a property. They are included as part of the

cost when comparing cost to value to determine realized or unrealized gain or loss. Regardless of whether an entity follows the Operating or Non-operating presentation for its financial statements, acquisition costs should generally be capitalized. However, the valuation of the underlying investment under ASC 820 may result in an unrealized loss on day one.

4.03(b) Because real estate investments are reported at fair value each reporting period and valuations take into account the effect of physical depreciation, none of the capitalized components (building, equipment, improvements, lease costs, in-place lease value, lease inducements, lease origination costs, etc.) are depreciated or amortized.

4.03(c) The initial cost basis of a real estate asset should be subsequently adjusted for additional capital costs such as tenant and building improvements, tenant allowances, tenant inducements, tenant leasing commissions, and tenant buyouts (if the buyout meets accounting guidance criteria for capitalization). These capital costs are generally incurred to maximize cash flows and generate additional income, which, in turn, influence the fair value of the real estate asset. Because the nature of these costs is such that they have benefits that extend beyond one year, the addition of these items to an asset's cost basis is considered appropriate.

4.03(d) This treatment extends to the reporting of tenant related capital costs, even after a tenant has vacated a property. These types of property-related costs represent additional investments in the property, which should be considered in any determination of the current fair value of the asset against an investor's investment in it.

4.04 Loans payable

4.04(a) Real estate investments are often partially financed using long- or intermediate-term loans whereby the real estate property is pledged as collateral for the loan. In many loan arrangements, the lender has no other recourse against the borrower; however, some arrangements provide for credit enhancements in the form of guarantees or additional pledges from the borrower. Real estate investments can also be financed through loans whereby owners with high credit standing or prearranged lines of credit may be able to borrow on an unsecured basis or by a loan which is secured by collateral other than the underlying real estate investments.

4.04(b) The Fair Value Option under ASC 825-10 permits entities to elect a one-time irrevocable policy election to measure financial instruments at fair value on an instrument-by-instrument basis.

4.04(c) Subsequent to the initial measurement, adjustments to the estimated fair value of loans payable should be reported as unrealized gain (loss) in the statement of operations. Gains and losses realized upon settlement of loans payable, net of transaction and prepayment costs, if any, should be reported separately as realized gain (loss) in the statement of operations.

4.04(d) If the Fair Value Option is elected for loans payable, the fair value is determined by ASC 820 and is based on the amount, from the market participant's perspective, at which the liability could be

transferred in an orderly transaction between market participants at the measurement date, exclusive of transaction costs. The fair value definition within ASC 820 focuses on the price that would be paid to transfer the liability (an exit price), not the price that would be received to assume the liability (an entry price). Therefore, if a market participant was to assume debt, interest expense incurred to date would not be assumed by the buyer and would remain the liability of the entity. In accordance with ASC 820, when measuring the fair value of a note payable (i.e., financial liability), the Reporting Entity must not attempt to compensate for any transfer restrictions contained in the loan documents because the existing valuation inputs tend to reflect such restrictions and require no further adjustment. Additionally, when applying a present value technique to value liabilities the Reporting Entity should, if applicable, include market participant assumptions related to compensation a market participant would expect when taking on the obligations and risks associated with such activities; however, this generally applies when the liability is not held by another party as an asset (e.g., asset retirement obligation).

Note: in instances where the value of an underlying real estate investment declines to a point that the principal amount of a property mortgage loan (if non-recourse) is greater than the value of the investment, it is generally appropriate to report the fair value of the loan at an amount equal to the fair value of the real estate to reduce FV NAV to zero.

4.04(e) If the Fair Value Option is not chosen for loans payable, the guidance as described in ASC 835-30 related to imputed interest should be followed.

Note: In instances where the value of an underlying real estate investment declines to a point that the principal amount of a property mortgage loan (if non-recourse) is greater than the value of the investment, it would generally not be appropriate to change the value of the loan because the fair value option was not elected. This can result in negative equity for an investment as the loan will continue to be presented at cost.

4.04(f) Refer to Reporting Standards Guidance Document, FASB ASC Topic 820, Fair Value Measurements and Disclosures: Implementation Guidance for Real Estate Investments for more information on applying ASC Topic 820.

4.05 Direct Transaction Costs of Loans Payable

4.05(a) ASC 825-10-25-3 states that "upfront costs and fees related to items for which the Fair Value Option is elected shall be recognized in earnings as incurred and not deferred." Therefore, transaction costs related to loans payable for operating properties are recorded as a reduction in earnings incurred in the statement of operations. Subsequent to the election of The Fair Value Option under ASC 825-10, transactions costs should be expensed as incurred.

4.05(b) Subsequent to the election of the fair value option, unrealized gains and losses on notes payable should generally be recognized when market interest rates or credit spreads fluctuate relative to contractually fixed rates or variable rate credit spreads.

4.06 Derivative financial instruments

4.06(a) Real estate is often financed through variable rate loans. In an effort to manage the risks associated with fluctuations in market interest rates and to maintain a more neutral position during market interest rate fluctuations, the borrower may purchase derivative financial instruments (derivatives), such as interest swaps, collars, Treasury locks, floors, or capping contracts. The contract can be assigned to a specific property or loan, or they can be established in connection with a portfolio of investments. These contracts also involve an up-front cost and generally are transferable to other parties.

4.06(b) All derivative financial instruments should be carried at estimated fair value with the change in fair value being recorded to earnings in accordance with ASC 815, Derivatives and Hedging.

4.06(c) The approach used for estimating the fair value of interest rate protection contracts should be consistent with ASC 820. The contract should be carried as an asset or liability, as fair value indicates, and should be adjusted to fair value each reporting period through unrealized appreciation/depreciation. Any transaction costs associated with obtaining the contracts should be recognized in earnings as incurred and not deferred. For cash outlays, consider ASC 815 to determine if the cash outlay represents a financing expense.

4.07 Other assets and liabilities

4.07(a) There are a variety of other assets and liabilities that may result from the acquisition of income producing property, or day-to-day operations of the property. Examples of other assets include prepaid expenses, such as taxes and insurance, supplies inventory, utility deposits, escrow deposits, equipment, etc. Examples of other liabilities include accounts payable, accrued expenses, such as accrued real estate taxes, insurance, repairs and maintenance, property management fees, interest, compensation, utilities and professional fees, and other liabilities, such as security deposits, unearned rental income, and fees payable in the ordinary course of operations.

4.07(b) Other assets or liabilities that are short-term in nature (i.e., expected to be settled within one year of the date of the financial statements) may be reported on the Statement of Net Assets at their undiscounted values. This is because of the short-term nature of these items; their undiscounted balances are considered to approximate their fair values.

4.07(c) Other assets or liabilities should be accounted for in accordance with other GAAP, electing to report the assets and liabilities at fair value wherever permitted by GAAP.

4.07(d) Regardless of the methodology utilized, care must be exercised in evaluating other assets and liabilities to ensure that they have not already been included in the valuation of the real property or the investment.

4.07(e) Changes in the fair value of other assets and liabilities from period to period are reported on the statement of operations as unrealized gains and losses, which are reported separately from net

investment income. Unrealized gains and losses become realized when the underlying asset or liability is settled or resolved.

4.07(f) Other liabilities may include contingent consideration that is part of an investment at the time of the acquisition. Contingent consideration should be recognized and measured at fair value at the acquisition date and each reporting date, rather than recognized and measured as an adjustment to the purchase price in the subsequent period in which the contingency is resolved. Other liabilities may also include such liabilities that result from day-to-day operations of a property

4.08 Receivables

4.08(a) Various operating transactions may result in notes or accounts receivable. These receivables may be short-term (less than one year to maturity) or long-term in nature.

4.08(b) The undiscounted carrying value of short-term receivables generally approximates fair value due to the relatively short period of time between the reporting date and the expected realization. The use of an undiscounted value is acceptable provided that the results of discounting would be immaterial. For receivables derived from rental income, an allowance should be established based upon the amount of the receivable expected to be uncollectible. Any such allowance should be charged against net investment income as a reduction to revenue in accordance with ASC 842-30-25-13. For non-rental receivables, the current expected credit losses (CECL) (Topic 326) model should be considered. Any receivables that are considered in the valuation of the real estate asset should not be established as such amounts are already included in the valuation of the real estate asset.

4.08(c) The fair value of longer-term receivables should be estimated by discounting the expected future cash flows to be received (including interest payments) using a current market rate of similar receivables commensurate with the risks of the specific receivables. Similar receivables are those that have comparable credit risk and maturities. When measuring collectability the current expected credit losses (CECL) (Topic 326) model should be considered Consideration should be given to any underlying collateral.

4.09 Real estate revenues and expenses

4.09(a) The ownership of income producing property encompasses real estate revenues directly associated with the underlying property or properties and may include the following: rental income, as well as funds receivable for the recovery of real estate expenses, percentage rent, and miscellaneous tenant charges. Real estate operating expenses may include utility costs, property management fees, real estate taxes, and normal maintenance expenses.

4.09(b) When reporting property specific information, real estate revenues should be recorded when contractually earned. Rent concessions (such as free rent, stepped rent) should not be recorded as income until the rent payments are earned and billable. This process matches appraisal methodology which factors in the future rental income in the determination of the property value. Accruing for

free rent/stepped rent would in essence be accounting for the same item twice (i.e., once in the property's valuation and again in an accounts receivable/other asset account outside the property base).

4.09(c) Lease cancellation, termination fees, and penalties or other lump-sum payments received or receivable from tenants who choose to terminate their lease prior to the end of the lease term should be recorded as income when the following criteria have been met: The tenant loses their right to use the space; the owner has no further obligation to provide services; and when payment is determined to be probable.

4.09(d) Real estate expenses should be recognized when incurred. Companies should consider authoritative accounting literature such as ASC 606-10-55-37A, for recording of revenues and expenses gross or net.

4.10 Realized and unrealized gains and losses

4.10(a) The periodic valuation of real property, real estate investments, and other non-current assets and liabilities, pursuant to the fair value basis of accounting, results in changes in the reported value of investments, other assets owned, and liabilities owed. These changes are reported in the statement of operations as unrealized gains and losses. While not a required disclosure, the allocation of unrealized gains and losses by the accounts as shown on the statement of net assets can be valuable information for investors. Gains and losses are realized upon disposition of the investments or assets, or the settlement of liabilities; however, sales transactions must also meet the gain recognition criteria set forth in ASC 610-20 See sections 2.04(f) and 2.05(d.2) above for further detail.

4.10(b) Realized gains and losses and the change in unrealized gains and losses are reported separately from net investment income in the statement of operations. Further, the portion of the change in unrealized gains and losses attributable to dispositions or the settlement of liabilities (i.e., the realization of previously reported unrealized gains/losses) is separately reported or otherwise disclosed, as appropriate, for each period presented in the financial statements.

4.10 (c) The distinctions between realized and unrealized recognition are not applied to items of net investment income (i.e., revenue and expenses), even if such items are not currently recorded as a receivable or payable.

4.10(d) A separately disclosed realized gain should be recognized on the extinguishment of debt when real estate is transferred to a lender in satisfaction of non-recourse debt. This gain may be recognized as an unrealized gain prior to reconveyance.

4.11 Lease Accounting, including Right of Use (RoU) Assets and Lease Liabilities (ASC 842)

4.11(a) ASC Topic 842 prescribes the accounting guidance and treatment for lease accounting, including requiring lessees to recognize most leases on their Statement of Net Assets by recording a right-of-use asset ("RoU asset") and a corresponding lease liability for the rights and obligations associated with all lessee leases. ASC 842 also provides guidance related to lessor accounting.

4.11(b) Lessee Accounting

Real estate funds may recognize RoU assets and lease liabilities on the Statement of Net Assets for any ground leases or other contracts classified as leases if the Fund is in the position of lessee. The RoU asset and corresponding lease liability will be measured at fair value at the end of each reporting period. The fair value of the RoU asset is expected to equal the lease liability because the value of the leasehold interest is included in the fair value of the real estate investment and therefore, is not expected to have any net impact on overall net asset value.

Ground lease payments are recommended to be expensed as incurred and reported within the statements of operations. The change in value of the RoU asset and corresponding lease liability will be reported as unrealized gain (loss) within the statements of operations.

Ground leases were classified as operating leases under legacy GAAP, ASC 840, and within comparative financial statements, the current classification and related disclosures will be carried forward for existing leases upon adoption of ASC 842 if the practical expedient transition package was elected.

The leasing standard requires an assessment of the classification of each lease and all new leases in accordance with ASC 842.

4.11(c) Lessor Accounting

ASC 842 changed the definition of a lease component, resulting in certain services being subject to the accounting guidance of ASC 606. ASC 842 requires lessors to allocate the consideration in a contract between the lease component (right to use an underlying asset) and non-lease component (transfer of a good or service that is not a lease – e.g. common area maintenance services). However, ASU 2018-11, Leases (Topic 842): Targeted Improvements, provided lessors with a practical expedient, elected by class of underlying asset, to account for the lease and non-lease components of a contract as a single lease component, provided that the associated non-lease component(s) otherwise would be accounted for under the revenue guidance within ASC 606 and both of the following criterion are met:

- The timing and pattern of transfer for the lease components and non lease component(s) . . . are the same.
- The lease component, if accounted for separately, would be classified as an operating lease under ASC 842.

Upon making this election, funds should account for the combined component as rental income under ASC 842.

The leasing standard included a change to the treatment of internal leasing costs and legal costs, which can no longer be capitalized. Under ASC 842, only incremental costs of a lease that would not have been incurred if the lease had not been obtained may be deferred as initial direct costs. In addition, the standard requires changes to the provision policy for lease receivables. Under ASC 842, the Fund must assess whether it is probable that it will collect substantially all of the remaining lease payments based on credit risk factors of tenants or other considerations. Changes to the collectability of operating leases will be recorded as adjustments to revenue from real estate investments on the consolidated statements of operations.

Funds will also be required to exclude from variable payments any reimbursements of the fund's costs (e.g., property taxes and insurance) that are paid directly by lessees to a third party (e.g., property taxes that are paid by an outparcel tenant directly to the taxing authority). As a result, revenue and expense related to such cost reimbursements will be presented on a net basis.

NCREIF PREA Reporting Standards Fair Value Accounting Policy Manual

APPENDICES

Appendix 1:

Illustrative financial statements for Operating Model

The accompanying financial statements are illustrative only and provide a general format for annual financial statements prepared on a fair value basis of accounting using the Operating Model. Disclosures included in the illustrative financial statements are not intended to be comprehensive and are not intended to establish preferences among alternative disclosures.

Note: The accompanying financial statement example is presented on a comparative basis; however, some entities may utilize a single year presentation within their financial statements.

XYZ Real Estate Account

Financial Statements for the Years Ended December 31, XXCY and XXPY

XYZ REAL ESTATE ACCOUNT

CONSOLIDATED STATEMENTS OF NET ASSETS
AS OF DECEMBER 31, XXCY AND XXPY (in thousands)

	XXCY	XXPY
Assets:		
Real estate investments - at fair value:		
Real estate investments and improvements (cost of $116,000 and $111,300, respectively)	$ 139,650	$ 121,500
Unconsolidated real estate joint ventures (cost of $46,850 and $43,500, respectively)	53,200	46,600
Mortgage and other loans receivable (cost of $11,200 and $11,150, respectively)	12,100	11,800
Marketable securities - at fair value (cost of $61,650 and $52,700, respectively)	65,225	54,100
Total real estate investments	270,175	234,000
Cash and cash equivalents	80,635	49,255
Restricted cash	10,000	10,000
Accounts receivable (net of allowance for doubtful accounts of $580 and $500, respectively)	18,620	16,200
Right of use assets - ground leases, at fair value	5,000	-
Prepaid and other assets	42,000	29,200
Total assets	**426,430**	**338,655**
Liabilities:		
Mortgage loans and fund level notes payable - at fair value (cost of $80,760 and $70,290, respectively)	77,220	64,870
Accrued real estate expenses and taxes	1,350	1,330
Accrued incentive fees (*)	260	250
Lease liabilities - ground leases, at fair value	5,000	-
Other liabilities	2,900	2,055
Total liabilities	**86,730**	**68,505**
Net assets:		
XYZ Real Estate Account net assets	318,162	253,356
Noncontrolling interests	21,538	16,794
Net assets	**$ 339,700**	**$ 270,150**

See accompanying notes to the consolidated financial statements.
For illustrative purposes only - operating model financial statements

* - This presentation assumes the manager is eligible for an incentive fee that would be reflected on statement of net assets and statement of operations. Alternatively, if the manager, GP or affiliate was a member of the JV and eligible for a promote distribution then the presentation on the statement of changes in net assets would be appropriate.

XYZ REAL ESTATE ACCOUNT

CONSOLIDATED SCHEDULE OF INVESTMENTS
AS OF DECEMBER 31, XXCY AND XXPY (in thousands)

Investment	Ownership	City, State	Acquisition Date	Square Feet Unless Otherwise Indicated (Unaudited)	December 31, XXCY Cost	December 31, XXCY Fair Value	December 31, XXPY Cost	December 31, XXPY Fair Value
Real estate investments and improvements								
Apartment								
Apt 1	WO	City, State	1/1/XXXX	xxx units	$ 24,800	$ 24,850	$ 24,500	$ 23,000
Apt 2	CJV	City, State	1/1/XXXX	xxx units	22,400	27,700	22,200	25,000
Total apartment		16.5% of NAV as of 12/31/XXCY			47,200	52,550	46,700	48,000
Hotel								
Hotel 1	CJV	City, State	1/1/XXXX	xxx rooms	38,500	45,200	36,500	39,700
Total hotel		14.2% of NAV as of 12/31/XXCY			38,500	45,200	36,500	39,700
Industrial								
Industrial 1	WO	City, State	1/1/XXXX	xxx	6,200	9,000	6,100	6,000
Total industrial		2.8% of NAV as of 12/31/XXCY			6,200	9,000	6,100	6,000
Retail								
Retail 1	CJV	City, State	1/1/XXXX	xxx	24,100	32,900	22,000	27,800
Total retail		10.3% of NAV as of 12/31/XXCY			24,100	32,900	22,000	27,800
Total real estate investments and improvements					**116,000**	**139,650**	**111,300**	**121,500**
Unconsolidated real estate joint ventures								
Other investments								
Other	EJV	City, State	1/1/XXXX	N/A	12,500	14,500	12,400	13,200
Total other investments		4.6% of NAV as of 12/31/XXCY			12,500	14,500	12,400	13,200
Office								
Office 1	EJV	City, State	1/1/XXXX	xxx	34,350	38,700	31,100	33,400
Total office		12.2% of NAV as of 12/31/XXCY			34,350	38,700	31,100	33,400
Total unconsolidated real estate joint ventures					**46,850**	**53,200**	**43,500**	**46,600**
Mortgage and other loans receivable								
Loan 1	Loan	City, State	1/1/XXXX	N/A	5,400	5,775	5,350	5,600
Loan 2	Loan	City, State	1/1/XXXX	N/A	5,800	6,325	5,800	6,200
Total mortgage and other loans receivable		3.8% of NAV as of 12/31/XXCY			**11,200**	**12,100**	**11,150**	**11,800**
Marketable securities								
Bond 1	Other	City, State	1/1/XXXX	xx shares	61,650	65,225	52,700	54,100
Total marketable securities		20.5% of NAV as of 12/31/XXCY			**61,650**	**65,225**	**52,700**	**54,100**
Total real estate investments					**$ 235,700**	**$ 270,175**	**$ 218,650**	**$ 234,000**

WO - Wholly Owned Investment
CJV - Consolidated Joint Venture
EJV - Joint Venture Investment accounted for under the equity method
Other - Marketable securities real estate related

See accompanying notes to the consolidated financial statements.
For illustrative purposes only - operating model financial statements
Note: GAAP requirement is to only disclose assets that are greater than 5% of NAV but funds may elect to disclose all assets

The below represents an example Schedule of Investment presentation for Debt Funds following this reporting model. This schedule would replace the Schedule of Investments on the previous page and reflect the loan assets consolidated on the account's Statement of Net Assets

XYZ Debt Fund
Schedule of Investments
As of December 31, 20CY AND 20PY (in thousands)

						December 31, 20CY				December 31, 20PY		
Investment - Loans Receivable	**City, State**	**Loan Type**	**Investment Date**	**Maturity Date**	**Interest Rate (fixed/variabl**	**Total Commitme**	**Unfunded Commitments**	**Investment at Cost**	**Investment at Fair Value**	**Unfunded Commitments**	**Investment at Cost**	**Investment at Fair Value**
Apartment												
Loan 1	City, State	LoC	1/1/XXXX	1/1/XXXX	xx.x%/xx.x%	$ xxx,xxx	$ xxx,xxx	$ xxx,xxx	$ xxx,xxx	$ xxx,xxx	$ xxx,xxx	$ xxx,xxx
Loan 2	City, State	Mezz	1/1/XXXX	1/1/XXXX	xx.x%/xx.x%	xxx,xxx	xxx,xxx	xxx,xxx	xxx,xxx	xxx,xxx	xxx,xxx	xxx,xxx
Total apartment						xxx,xxx	xxx,xxx	xxx,xxx	xxx,xxx	xxx,xxx	xxx,xxx	xxx,xxx
Industrial												
Loan 3	City, State	Bridge loan	1/1/XXXX	1/1/XXXX	xx.x%/xx.x%	xxx,xxx	xxx,xxx	xxx,xxx	xxx,xxx	xxx,xxx	xxx,xxx	xxx,xxx
Total industrial						xxx,xxx	xxx,xxx	xxx,xxx	xxx,xxx	xxx,xxx	xxx,xxx	xxx,xxx
Total loans receivable investments						**$ xxx,xxx**	**$ xxx,xxx**	**$ xxx,xxx**	**$ xxx,xxx**	**$ xxx,xxx**	**$ xxx,xxx**	**$ xxx,xxx**

LoC - Line of credit
Mezz - Mezzanine loan

See accompanying notes to the consolidated financial statements.
For illustrative purposes only - DEBT FUND operating model financial statements

XYZ REAL ESTATE ACCOUNT

CONSOLIDATED STATEMENTS OF OPERATIONS
FOR THE YEARS ENDED DECEMBER 31, XXCY AND XXPY (in thousands)

	XXCY	XXPY
Investment income:		
Revenue from real estate investments	$ 32,150	$ 31,750
Equity in income of unconsolidated real estate joint ventures	21,450	20,500
Interest income on mortgage and other loans receivable	8,300	7,800
Income from other real estate investments	7,100	6,900
Other income	4,610	4,100
Total investment income	**73,610**	**71,050**
Expenses:		
Real estate expenses and taxes	12,250	12,100
Interest expense	3,600	3,250
Administrative expenses	5,390	4,410
Financing costs	10	690
Investment management fees	1,250	1,000
Total expenses	**22,500**	**21,450**
Net investment income	**51,110**	**49,600**
Net realized and unrealized gain (loss):		
Realized gain from sales of real estate investments	1,100	800
Less: previously recorded unrealized gain on sale of real estate investments	(795)	(500)
Net realized and unrealized gain from the sale of real estate investments	305	300
Unrealized gain (loss) on real estate investments and improvements	14,550	(8,000)
Unrealized gain (loss) on unconsolidated real estate joint ventures	3,250	(1,120)
Unrealized gain on mortgage and other loans receivable	250	100
Unrealized gain on marketable securities	2,175	1,500
Unrealized loss on right of use assets	(1,000)	-
Unrealized gain on interest rate caps and swaps	-	-
Unrealized (loss) gain on mortgage loans and notes payable	(1,880)	1,000
Unrealized gain on lease liabilities	1,000	-
Unrealized incentive fee (*)	(10)	-
Net realized and unrealized gain (loss)	**18,640**	**(6,220)**
Increase in net assets resulting from operations	**69,750**	**43,380**
Less: Portion attributable to noncontrolling interests	(4,754)	(4,230)
Increase in net assets resulting from operations attributable to XYZ Real Estate Account	**$ 64,996**	**$ 39,150**
Amounts attributable to XYZ Real Estate Account		
Net investment income	$ 48,857	$ 45,059
Net realized and unrealized gain (loss)	16,139	(5,909)
Increase in net assets resulting from operations attributable to XYZ Real Estate Account	**$ 64,996**	**$ 39,150**

See accompanying notes to the consolidated financial statements.
For illustrative purposes only - operating model financial statements

* - This presentation assumes the manager is eligible for an incentive fee that would be reflected on statement of net assets and statement of operations. Alternatively, if the manager, GP or affiliate was a member of the JV and eligible for a promote distribution then the presentation on the statement of changes in net assets would be appropriate.

XYZ REAL ESTATE ACCOUNT

CONSOLIDATED STATEMENTS OF CHANGES IN NET ASSETS
FOR THE YEARS ENDED DECEMBER 31, XXCY AND XXPY (in thousands)

	XYZ Real Estate Account		Noncontrolling Interest	Total
	Limited Partners	General Partners		
Net assets - December 31, XXPY-1	**$ 214,016**	**$ -**	**$ 12,554**	**$ 226,570**
From operations:				
Net investment income	45,059	-	4,541	49,600
Net realized and unrealized loss	(5,909)	-	(311)	(6,220)
Increase in net assets resulting from operations	39,150	-	4,230	43,380
From capital transactions:				
Contributions	570	-	30	600
Distributions	(380)	-	(20)	(400)
Promote allocation (*)	-	-	-	-
Increase in net assets resulting from capital transactions	190		10	200
Increase in net assets	39,340	-	4,240	43,580
Net assets - December 31, XXPY	**253,356**	**-**	**16,794**	**270,150**
From operations:				
Net investment income	48,857	-	2,253	51,110
Net realized and unrealized gain	16,139	-	2,501	18,640
Increase in net assets resulting from operations	64,996	-	4,754	69,750
From capital transactions:				
Contributions	285	-	15	300
Distributions	(475)	-	(25)	(500)
Promote allocation (*)	-	-	-	-
Decrease in net assets resulting from capital transactions	(190)	-	(10)	(200)
Increase in net assets	64,806	-	4,744	69,550
Net assets - December 31, XXCY	**$ 318,162**	**$ -**	**$ 21,538**	**$ 339,700**

See accompanying notes to the consolidated financial statements.
For illustrative purposes only - operating model financial statements

* - If the GP was eligible for a promote distribution then this presentation on the statement of changes in net assets would be appropriate. Alternatively, there could be an incentive fee as reflected on statement of net assets and statement of operations.

XYZ REAL ESTATE ACCOUNT

CONSOLIDATED STATEMENTS OF CASH FLOWS
FOR THE YEARS ENDED DECEMBER 31, XXCY AND XXPY (in thousands)

	XXCY	XXPY
Cash flows from operating activities:		
Increase in net assets resulting from operations	$ 69,750	$ 43,380
Adjustments to reconcile increase in net assets resulting from operations to net cash flows from operating activities:		
Net realized and unrealized (gain) loss	(18,640)	6,220
Bad debt expense	80	-
Equity in income of unconsolidated real estate joint ventures	(21,450)	(20,500)
Income distributions from unconsolidated real estate joint ventures	13,100	11,550
Changes in other assets and liabilities:		
Accounts receivable	(2,500)	(1,050)
Prepaid and other assets	(12,800)	(8,050)
Accrued real estate expenses and taxes	20	(155)
Accrued incentive fees	10	1,005
Other liabilities	845	(110)
Net cash flow provided by operating activities	**28,415**	**32,290**
Cash flows from investing activities: (*)		
Capital expenditures on real estate investments	(5,495)	(4,700)
Investment in real estate joint ventures	-	(2,500)
Net proceeds from real estate investments sold	2,200	1,100
Return of capital from unconsolidated real estate joint ventures	5,000	3,000
Funding of mortgage and other loans receivable	(50)	(45)
Purchase of marketable securities	(8,950)	-
Sales and maturities of marketable securities	-	-
Net cash flow used in investing activities	**(7,295)**	**(3,145)**
Cash flows from financing activities:		
Proceeds from mortgage loans and fund level notes payable	10,470	-
Principal repayments on mortgage loans and fund level notes payable	-	(1,900)
Payment of financing costs	(10)	(690)
Contributions	285	570
Distributions	(475)	(380)
Contributions from noncontrolling interests	15	30
Distributions to noncontrolling interests	(25)	(20)
Net cash flow provided by (used in) financing activities	**10,260**	**(2,390)**
Net change in cash and cash equivalents and restricted cash	**31,380**	**26,755**
Cash and cash equivalents and restricted cash— Beginning of year	59,255	32,500
Cash and cash equivalents and restricted cash — End of year	**$ 90,635**	**$ 59,255**
Supplemental cash flow information:		
Cash paid for interest, net of amounts capitalized of $1	$ 3,600	$ 3,250
Cash paid for income taxes	12	10
Supplemental non-cash cash flow information:		
Recognition of RoU assets and corresponding lease liabilities under ASC 842	6,000	-

See accompanying notes to the consolidated financial statements.
For illustrative purposes only - operating model financial statements

*If the entity reports as an investment company under ASC 946, the investing activities section may be included in the operating activities section

XYZ REAL ESTATE ACCOUNT

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
YEARS ENDED DECEMBER 31, 20XX AND 20XX

1. ORGANIZATION

Example A: Separate Account financial statements with single institutional investor:

The XXXX Retirement Association has approved certain asset allocations in core equity real estate (the "Account") for which Real Estate Account LLC is the Investment Advisor ("ABC" or "Investment Advisor"). The Account is an investment account in the business of acquiring, improving, operating, and holding for investment, income-producing industrial, retail, office, and residential properties. The Account may also invest in real estate loans or other marketable securities.

The Account's total equity commitments are $xxx,xxx,xxx, of which $xx,xxx,xxx and $xx,xxx,xxx remains unfunded as of December 31, CY and PY, respectively.

Example B: Commingled fund with limited partner(s) and general partner.

XYZ Real Estate Account, LP (the "Account") is a Delaware limited partnership formed on XXXXXX (the "Initial Agreement") between General Partner LLC (the "General Partner"), a Delaware limited liability company, and other investors (the "Limited Partners").

The Account is an investment account in the business of acquiring, improving, operating, and holding for investment, income-producing industrial, retail, office, and residential properties. The Account may also invest in real estate loans or other marketable securities.

The managing member of the General Partner is a wholly-owned subsidiary of the Investment Advisor ("ABC" or "Investment Advisor") and has ultimate responsibility for the management and operations of the Account.

The Account's total equity commitments are $xxx,xxx,xxx, of which $xx,xxx,xxx and $xx,xxx,xxx remains unfunded as of December 31, CY and PY, respectively.

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Basis of Presentation — The accompanying consolidated financial statements of the Account have been presented in conformity with accounting principles generally accepted in the United States of America.

The Account is a public employees' retirement system. Accounting principles for public employee retirement systems require that, among other things, investments in real estate be stated at fair value.

OR

Under ASC 946, *Financial Services – Investment Companies*, the Account qualifies as an investment company.

The accompanying consolidated financial statements include the accounts of the Account and all subsidiaries over which the Account is able to exercise control. The equity interests in those consolidated subsidiaries not owned by the Account are reflected as noncontrolling interests. The Account does not consider itself to be in control when other partners have important approval rights over major activities. Investments in noncontrolled entities are accounted for using the equity method [are not consolidated]. All intercompany balances and transactions have been eliminated in consolidation.

Variable Interest Entities – VIEs are defined as entities in which equity investors (i) do not have the characteristics of a controlling financial interest, and/or (ii) do not have sufficient equity at risk for the entity to finance its activities without additional subordinated financial support from other parties. The entity that consolidates a VIE is known as its primary beneficiary, and is generally the entity with (i) the power to direct the activities that most significantly impact the VIE's economic performance, and (ii) the right to receive benefits from the VIE or the obligation to absorb losses of the VIE that could be significant to the VIE.

The VIEs of the Account acquire, develop, lease, manage, operate, improve, finance, and sell real estate property.

Consolidated VIEs

As of December 31, XXCY, and XXPY the Account consolidated XX and XX VIEs, respectively.

The total assets and liabilities of the VIE's as of December 31, XXCY and XXPY are as follows:

[disclose total assets and liabilities either in sentence above or tabular format]]

Noncontrolling Interests - Noncontrolling interests in the Account's consolidated subsidiaries are classified to net assets and the net increase or decrease in net asset value from operations is adjusted to include amounts attributable to noncontrolling interests.

Additionally, losses attributable to the noncontrolling interest in a subsidiary may exceed their interests in the subsidiary's equity. Therefore, the noncontrolling interest shall continue to be allocated their share of losses even if that allocation results in a deficit noncontrolling interest balance.

Use of estimates — The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the amounts reported in the financial statements and accompanying notes. Actual results could differ from these estimates.

The real estate and capital markets are cyclical in nature. Property and investment values are affected by, among other things, the availability of capital, occupancy rates, rental rates and interest and inflation rates. As a result, determining real estate and investment values involves many assumptions. Amounts ultimately realized from each investment may vary significantly from the fair values presented.

Real estate investments and improvements — Investments in real estate are carried at fair value. Properties owned are initially recorded at the purchase price plus acquisition costs. Development costs and major renovations are capitalized as a component of cost, and routine maintenance and repairs are charged to expense as incurred.

Unconsolidated real estate joint ventures — Investments in unconsolidated joint ventures are carried at fair value and are presented in the financial statements using the equity method of accounting [on a non-consolidated basis] as the Account exercises significant influence over operating, investing, and financial policies of such ventures, but does not maintain overall control. The investment is initially recorded at the original investment amount, plus additional amounts invested, and is subsequently adjusted for the Account's share of undistributed earnings or losses (including unrealized appreciation and depreciation) from the underlying entity. In addition, the Account classifies and accounts for investments in certain participating loans as investments in joint ventures where arrangements have virtually the same risks and rewards of ownership. The Account accounts for distributions from non-consolidated joint ventures using the [look-through method / cumulative earnings and profits method] for determining classification within the consolidated statements of cash flows.

Mortgage and other loans receivable — Investments in mortgage loans receivable are carried at fair value. Loan acquisition and origination costs are capitalized as a component of cost.

Investment valuation — Real estate values are based upon independent appraisals, estimated sales proceeds or the Investment Advisor's opinion of value. Such values have been identified for investment and portfolio management purposes only; the Account reserves its right to pursue full remedies for the recovery of its investments and other rights. The fair value of real estate investments does not reflect transaction sale costs, which may be incurred upon disposition of the real estate investments.

As described above, the estimated fair value of real estate related assets is determined through an appraisal process. These estimated fair values may vary significantly from the prices at which the real estate investments would sell as market prices of real estate investments can only be determined by negotiation between a willing buyer and seller. Although the estimated fair values represent subjective estimates, management believes these estimated fair values are reasonable approximations of market prices and the aggregate estimated value of investments in real estate is fairly presented at December 31, XXCY and XXPY.

Concentration of credit risk — The Account invests its cash primarily in deposits and money market funds with commercial banks. At times, cash balances at a limited number of banks and financial institutions may exceed federally insured amounts. The Investment Advisor believes it mitigates credit risk by depositing cash in or investing through major financial institutions. In addition, in the normal course of business, the Account extends credit to its tenants, which consist of local, regional and national based tenants. The Investment Advisor does not believe this represents a material risk of loss with respect to its financial position.

Cash and cash equivalents — Cash and cash equivalents are comprised of cash and short-term investments with original maturity dates of less than ninety days from the date of purchase.

Restricted cash — Restricted cash includes escrow accounts held by lenders for real estate taxes. The following table provides a reconciliation of cash and cash equivalents and restricted cash reported within the consolidated statements of net assets to the total of the same such amounts shown in the consolidated statements of cash flows for the years ended December 31, XXCY and XXPY (in thousands):

Year Ended	December 31, XXCY	December 31, XXPY
Cash and cash equivalents	$ 80,635	$ 49,255
Restricted cash	10,000	10,000
Cash, cash equivalents, and restricted cash	$ 90,635	$ 59,255

***Note> Preparer of the consolidated financial statements has the option to present this tabular reconciliation on the face of the consolidated statement of cash flows prior to the supplemental cash flow information section.**

Mortgage loans and notes payable — Mortgage loans and notes payable are shown at fair value. Subsequent to the adoption of The Fair Value Option under ASC subtopic 825-10 ("ASC 825-10"), deferred financing costs are charged to expense as incurred and not deferred. For the years ended December 31, XXCY and XXPY the Account incurred financing costs of $xx,xxx and $xx,xxx, respectively. Such amounts are included in interest expense in the accompanying consolidated statements of operations.

Interest rate swaps and caps — The Account records derivative financial instruments, primarily interest rate caps and swaps, at fair value, which is the estimated amounts that the Account would receive or pay in a current exchange transaction at the reporting date, taking into account current interest rates and the current credit worthiness of the respective counter-parties. The Account uses interest rate swaps and caps in order to reduce the effect of interest rate fluctuations of certain real estate investments' interest expense on variable debt. See Note 6.

Income and expense recognition — Rental income is recognized on an accrual basis in accordance with the terms of the underlying lease agreements. Other lease rental income, such as adjustments based on the Consumer Price Index, charges to tenants for their share of operating expenses, and percentage rents based on sales, are recognized when earned. Interest income is accrued as earned in accordance with the contractual terms of the loan agreements. Operating expenses are recognized as incurred.

Leases –

Lessor Accounting

The Account combines the lease component (right to use an underlying asset) and non-lease components (transfer of a good or service that is not a lease such common area maintenance services) of its leases as revenue from real estate investments within the consolidated statements of operations. The Account combines these components given that the following criteria are met: (1) both the timing and pattern of

transfer are the same for the non-lease component(s) and related lease component, and (2) the lease component would be classified as an operating lease if accounted for separately.

Lessee Accounting

The Account's leases where it is the lessee primarily consist of ground leases which are classified as operating leases [finance leases]. The Account has recorded a RoU asset and related lease liability for the rights and obligations associated with these operating leases. During the year ended December 31, CY, the Account recognized lease liabilities of $6,000 and RoU assets of $6,000 for new ground lease arrangements in which the Account is the lessee. At December 31, CY, the balance of lease liabilities was $5,000 and RoU assets was $5,000. These lease liabilities and RoU assets are shown as a separate line item on the consolidated statements of net assets.

The lease liabilities and corresponding RoU assets are recorded at fair value. *[The fair value of the lease liabilities is determined using a discounted cash flow approach with a discount rate and other assumptions that approximate current market conditions. The fair value of lease liabilities is determined by discounting the future contractual cash flows to the present value using a discount rate that is commensurate with the rate utilized in the underlying valuation of the real estate investment for each ground lease. The discount rate is determined by giving consideration to one or more of the following criteria as appropriate: (i) rates for similar property types, quality, and maturity, and (ii) the fair value of the underlying collateral.]*

Note – to be updated based on the valuation methodology elected

The Account values the lease liabilities and RoU assets on a quarterly [annual] basis and the amount of unrealized gain (loss) between the lease liabilities and RoU assets offset to have no material impact on net assets. For the years ended December 31, XXCY and XXPY, the Account recorded unrealized gain of $1,000 and $0, respectively, on the lease liabilities and unrealized loss of $1,000 and $0, respectively, on the RoU assets.

Our current lessee lease portfolio is comprised primarily of operating leases [finance leases].

Investment management fees — Investment management fees include asset management fees and investment acquisition fees charged by ABC. Such amounts are reflected in the accompanying consolidated financial statements when incurred.

Income taxes — The Account has been classified as a qualified trust under Section 401(a) of the internal Revenue Code of 1986 (the "Code") and management believes it continues to comply with the requirements of Section 501(a) of the Code. Accordingly, the Account is exempt from income taxes, and no income tax provision is provided. If an uncertain income tax position were to be identified, the Account would account for such in accordance with Subtopic 450, Contingencies.

ASC Subtopic 740, Income Taxes (ASC 740), provides guidance for how uncertain tax positions should be recognized, measured, presented and disclosed in the consolidated financial statements. ASC 740 requires the evaluation of tax positions taken in the course of preparing the Account's tax returns to determine

whether tax positions are "more-likely-than-not" of being sustained by the applicable tax authority. Tax benefits of positions not deemed to meet the more-likely-than-not threshold would be recorded as a tax expense in the current year.

Guarantees — The Account is required to recognize, at inception of a guarantee, a liability for the fair value of the obligation undertaken in issuing a guarantee. At the inception of guarantees issued, the Account will record the fair value of the guarantee as a liability, with the offsetting entry being recorded based on the circumstances in which the guarantee was issued. The Account did not have any material guarantee liabilities at December 31, XXCY and XXPY.

Foreign currency — For investments held outside the United States of America (the "USA"), the Account uses the local currency of the place of operations as its functional currency. Assets and liabilities are translated to U.S. dollars using current exchange rates at the date of the Statement of Net Assets . Revenue and expenses are translated to U.S. dollars using a weighted average exchange rate during the year. The gains and losses resulting from such translation are reported as a component of unrealized gains and losses on the consolidated statements of operations. The cumulative translation gain (loss) as of December 31, XXCY and XXPY was $xx,xxx and $xx,xxx, respectively. Foreign currency transactions may produce receivables or payables that are fixed in terms of the amount of foreign currency that will be received or paid. A change in the exchange rates between the functional currency and the currency in which the transaction is denominated increases or decreases the expected amount of functional currency cash flows upon settlement of that transaction. That increase or decrease in the expected functional currency cash flows is a foreign currency transaction gain or loss that generally will be included in determining total unrealized gains and losses on the consolidated statements of operations. A transaction gain or loss (measured from the transaction date or the most recent intervening date of the Statement of Net Assets, whichever is later), realized upon settlement of a foreign currency transaction generally will be included as a component of realized gains and losses on the consolidated statements of operations. The real estate investments were funded partially through financing based arrangements that are scheduled for settlement, consisting primarily of accrued interest and intercompany loans with scheduled principal payments. For the years ended December 31, XXCY and XXPY, the Account recognized realized gains of $xx,xxx and $xx,xxx, respectively on foreign currency transactions in connection with the distribution of cash from foreign operating investees to the Account.

Risk management — In the normal course of business, the Account encounters economic risk, including interest rate risk, credit risk, foreign currency risk and market risk. Interest rate risk is the result of movements in the underlying variable component of the mortgage financing rates. Credit risk is the risk of default on the Account's real estate investments that results from an underlying tenant's inability or unwillingness to make contractually required payments. Foreign currency risk is the effect of exchange rate movements of foreign currencies against the dollar. Market risk reflects changes in the valuation of real estate investments held by the Account.

The Account has not directly entered into any derivative contracts for speculative or hedging purposes against these risks. One of the Account's investments (_____), which owns a facility in _____, has entered

into a pay-fixed interest rate swap to manage interest rate risk exposure on its variable rate financing. The investee (_____) is potentially exposed to credit loss in the event of non-performance by the counterparty; however, due to the counterparty's credit rating, the Account does not anticipate that the counterparty will fail to meet their obligations.

Recently issued accounting standards

Accounting Standard Updates (ASUs) recently issued that may be applicable to users of this manual include the following[1]:

- None noted for the year ending December 31, 2023. Open to update in future periods.

Impact of accounting standards not yet adopted — [to be tailored to each year at management's discretion.]

3. FAIR VALUE MEASUREMENTS[2]

In determining fair value, the Account uses various valuation approaches. ASC 820 establishes fair value measurement framework, provides a single definition of fair value, and requires expanded disclosure summarizing fair value measurements. ASC 820 emphasizes that fair value is a market-based measurement, not an entity-specific measurement. Therefore, a fair value measurement should be determined based on the assumptions that market participants would use in pricing an asset or liability.

The standard establishes a hierarchy for inputs used in measuring fair value that maximizes the use of observable inputs and minimizes the use of unobservable inputs by requiring that the most observable input be used when available. Observable inputs are inputs that the market participants would use in pricing the asset or liability developed based on market data obtained from sources independent of the Account. Unobservable inputs are inputs that reflect the Account's assumptions about the assumptions market participants would use in pricing the asset or liability developed based on the best information available in the circumstances. The hierarchy is measured in three levels based on the reliability of inputs:

Level 1— Valuations based on quoted prices in active markets for identical assets or liabilities that the Account has the ability to access. Valuation adjustment and block discounts are not applied to Level 1 instruments.

Level 2 — Valuations based on quoted prices in less active, dealer or broker markets. Fair values are primarily obtained from third party pricing services for identical or comparable assets or liabilities.

Level 3 — Valuations derived from other valuation methodologies, including pricing models, discounted cash flow models and similar techniques, and not based on market, exchange, dealer, or broker-traded transactions. Level 3 valuations incorporate certain assumptions and projections that are not observable in

[1] Additional ASUs may be applicable, as determined by management.
[2] This footnote highlights disclosures that are optional after the adoption of ASU 2018-13, *Fair Value Measurement (Topic 820): Disclosure Framework — Changes to the Disclosure Requirements for Fair Value Measurement*.

the market and use significant professional judgment in determining the fair value assigned to such assets or liabilities.

In instances where the determination of the fair value measurement is based on inputs from different levels of the fair value hierarchy, the level in the fair value hierarchy within which the entire fair value measurement falls is based on the lowest level input that is significant to the fair value measurement in its entirety.

ASC 825 provides entities with a one-time irrevocable option to fair value eligible assets and liabilities and requires both qualitative and quantitative disclosures to those for which an election is made. Unrealized gains and losses on items for which the Fair Value Option has been elected are reported in earnings. The Account has elected the Fair Value Option for all of its mortgages to better align the measurement attributes of both the assets and liabilities while providing investors with a more meaningful indication of the fair value of the Account's net asset value.

The following is a description of the valuation techniques used for items measured at fair value:

Real estate investments and improvements— The values of real estate properties have been prepared giving consideration to the income, cost and sales comparison approaches of estimating property value. The income approach estimates an income stream for a property (typically 10 years) and discounts this income plus a reversion (presumed sale) into a present value at a risk adjusted rate. Yield rates and growth assumptions utilized in this approach are derived from market transactions as well as other financial and industry data. The cost approach estimates the replacement cost of the building less physical depreciation plus the land value. Generally, this approach provides a validation on the value derived using the income approach. The sales comparison approach compares recent transactions to the appraised property. Adjustments are made for dissimilarities which typically provide a range of value. The income approach was used to value all of the Account's real estate investments for the years ended December 31, XXCY and XXPY. The terminal cap rate and the discount rate are significant inputs to these valuations. These rates are based on the location, type and nature of each property, and current and anticipated market conditions. [Significant increases in discount or capitalization rates in isolation would result in a significantly lower fair value measurement. Significant decreases in discount or capitalization rates in isolation would result in a significantly higher fair value measurement.][3]

Investment values are determined quarterly from limited restricted appraisals, in accordance with the Uniform Standards of Professional Appraisal Practice ("USPAP"), which include less documentation but nevertheless meet the minimum requirements of the Appraisal Standards Board and the Appraisal Foundation and are considered appraisals. In these appraisals, a full discounted cash flow analysis, which is the basis of an income approach, is the primary focus. Interim monthly valuations are determined by giving consideration to material investment transactions. Full appraisal reports are prepared on a rotating basis for all properties, so each property receives a full appraisal report at least once every three years.

[3] Bracketed wording required for SEC registrants.

As fair value measurements take into consideration the estimated effect of physical depreciation, historical cost depreciation and amortization on real estate related assets has been excluded from net investment income.

The values of real estate properties undergoing development have been prepared giving consideration to costs incurred to date and to key development risk factors, including entitlement risk, construction risk, leasing/sales risk, operation expense risk, credit risk, capital market risk, pricing risk, event risk and valuation risk. The fair value of properties undergoing development includes the timely recognition of estimated entrepreneurial profit after such consideration.

During XXCY and XXPY, all appraisals for the Account were prepared by independent external appraisers and reviewed and approved by management. The external appraisals are reviewed by an external appraisal management firm. All appraisal reports and appraisal reviews comply with the currently published USPAP, as promulgated by the Appraisal Foundation. The Account's real estate properties are generally classified within level 3 of the valuation hierarchy.

Unconsolidated real estate joint ventures — Real estate joint ventures and certain limited partnerships are stated at the fair value of the Account's ownership interests of the underlying entities. The Account's ownership interests are valued based on the fair value of the underlying real estate, any related mortgage loans payable, and other factors, such as ownership percentage, ownership rights, buy/sell agreements, distribution provisions and capital call obligations. The underlying assets and liabilities are valued using the same methods as the Account uses for those assets and liabilities it holds directly. Upon the disposition of all real estate investments by an investee entity, the Account will continue to state its equity in the remaining net assets of the investee entity during the wind down period, if any that occurs prior to the dissolution of the investee entity. The Account's real estate joint ventures and limited partnerships are generally classified within level 3 of the valuation hierarchy.

Mortgage and other loans receivable — The fair value of mortgage and other loans receivable held by the Account have been determined by one or more of the following criteria as appropriate: (i) on the basis of estimated market interest rates for loans of comparable quality and maturity, (ii) by recognizing the value of equity participations and options to enter into equity participations contained in certain loan instruments and (iii) giving consideration to the value of the underlying collateral. The Account's mortgage and other loans receivable are classified within level 3 of the valuation hierarchy. The fair value of mortgage and other loans receivable are determined by discounting future contractual cash flows to the present value using a current market interest rate, which is updated quarterly by personnel responsible for the management of each investment and reviewed by senior management at each reporting period. Many methods are used to develop and substantiate unobservable inputs such as analyzing discount and capitalization rates as well as researching revenue and expense growth. [Significant increases in discount or capitalization rates in isolation would result in a significantly lower fair value measurement while significant increases in revenue growth rates in isolation would result in a significantly higher fair value measurement. Significant decreases in discount or capitalization rates in isolation would result in a significantly higher fair value measurement while

significant decreases in revenue growth rates in isolation would result in a significantly lower fair value measurement.][4]

Marketable securities — Equity securities listed or traded on any national market or exchange are valued at the last sale prices as of the close of the principal securities exchange on which such securities are traded or, if there is no sale, at the mean of the last bid and asked prices on such exchange, exclusive of transaction costs. Such marketable securities are classified within level 1 of the valuation hierarchy.

Debt securities, other than money market instruments, are generally valued at the most recent bid price of the equivalent quoted yield for such securities (or those of comparable maturity, quality, and type). Money market instruments with maturities of one year or less are valued in the same manner as debt securities or derived from a pricing matrix. Debt securities are generally classified within level 2 of the valuation hierarchy.

Interest rate swaps and caps – The fair value of interest rate swaps and caps held by the Account are determined by using market standard methodology of netting the discounted future fixed cash receipts or payments. The variable cash payments or receipts are based on an expectation of future interest rates (forward curves) derived from observable market interest rate curves. Interest rate caps and swaps are generally classified within level 2 of the valuation hierarchy.

Mortgage loans and notes payable — The fair values of mortgage loans and notes payable are determined by discounting the future contractual cash flows to the present value using a current market interest rate, which is updated quarterly by personnel responsible for the management of each investment and reviewed by senior management at each reporting period. The market rate is determined by giving consideration to one or more of the following criteria as appropriate: (i) interest rates for loans of comparable quality and maturity, and (ii) the value of the underlying collateral. The Account's mortgage loans and notes payable are generally classified within level 3 of the valuation hierarchy. The significant unobservable inputs used in the fair value measurement of the Account's mortgage loans payable are the loan to value ratios and the selection of certain credit spreads and weighted average cost of capital risk premiums. [Significant increases (decreases) in any of those inputs in isolation would result in a significantly lower (higher) fair value, respectively.][5]

RoU assets and lease liabilities — The fair value of lease liabilities is determined *[using a discounted cash flow approach with a discount rate and other assumptions that approximate current market conditions. The fair value of lease liabilities is determined by discounting the future contractual cash flows to the present value using a discount rate that is commensurate with the rate utilized in the underlying valuation of the real estate investment for each ground lease. The discount rate is determined by giving consideration to one or more of the following criteria as appropriate: (i) rates for similar property types, quality, and maturity, and (ii) the fair value of the underlying collateral. The fair value of the RoU asset is equal to the corresponding value of each respective lease liability.]*

[4] Bracketed wording required for SEC registrants.
[5] Bracketed wording required for SEC registrants.

Note - to be updated based on the valuation methodology elected

The following are the classes of assets and liabilities measured at fair value on a recurring basis during the year ended December 31, XXCY, using unadjusted quoted prices in active markets for identical assets (Level 1); significant other observable inputs (Level 2); and significant unobservable inputs (Level 3):

Description	Level 1: Quoted Prices in Active Markets for Identical Assets	Level 2: Significant Other Observable Inputs	Level 3: Significant Unobservable Inputs	Total at December 31, XXCY
Real estate investments and improvements	$ -	$ -	$ 139,650	$ 139,650
Unconsolidated real estate joint ventures	-	-	53,200	53,200
Mortgage and other loans receivable	-	-	12,100	12,100
Marketable securities	-	65,225	-	65,225
Total real estate investments	$ -	$ 65,225	$ 204,950	$ 270,175
Right of use assets - ground leases, at fair value	$ -	$ -	$ 5,000	$ 5,000
Interest rate caps and swaps	$ -	$ 2,600	$ -	$ 2,600
Mortgage loans and fund level notes payable	$ -	$ -	$ (77,220)	$ (77,220)
Lease liabilities - ground leases, at fair value	$ -	$ -	$ (5,000)	$ (5,000)

The following are the classes of assets and liabilities measured at fair value on a recurring basis during the year ended December 31, XXPY, using unadjusted quoted prices in active markets for identical assets (Level 1); significant other observable inputs (Level 2); and significant unobservable inputs (Level 3):

Description	Level 1: Quoted Prices in Active Markets for Identical Assets	Level 2: Significant Other Observable Inputs	Level 3: Significant Unobservable Inputs	Total at December 31, XXPY
Real estate investments and improvements	$ -	$ -	$ 121,500	$ 121,500
Unconsolidated real estate joint ventures	-	-	46,600	46,600
Mortgage and other loans receivable	-	-	11,800	11,800
Marketable securities	-	54,100	-	54,100
Total real estate investments	$ -	$ 54,100	$ 179,900	$ 234,000
Interest rate caps and swaps	$ -	$ 2,600	$ -	$ 2,600
Mortgage loans and fund level notes payable	$ -	$ -	$ (64,870)	$ (64,870)

The following is a reconciliation of the beginning and ending balances for assets measured at fair value on a recurring basis using significant unobservable inputs (Level 3) during the year ended December 31, XXCY and XXPY:

Description	Real Estate and Improvements	Unconsolidated Real Estate Joint Ventures	Mortgage and Other Loans Receivable	Mortgage Loans and Fund Notes Payable	RoU Assets - Ground Leases [2]	Lease Liabilities - Ground Leases [2]
Beginning balance December 31, XXPY	**$ 121,500**	**$ 46,600**	**$ 11,800**	**$ (64,870)**	**$ -**	**$ -**
Acquisition of new ground lease - RoU asset and lease liability					6,000	(6,000)
Realized and unrealized gain (loss) on real estate investments [1]	14,855	3,250	250	(1,880)	(1,000)	1,000
Equity in income of unconsolidated real estate joint ventures [1]	-	21,450	-	-	-	-
Income distributions from unconsolidated real estate joint ventures	-	(13,100)	-	-	-	-
Return of capital from unconsolidated real estate joint ventures [1]	-	(5,000)	-	-	-	-
Purchases of real estate investments/capital improvements	5,495	-	-	-	-	-
Proceeds from sale of real estate investments [1]	(2,200)	-	-	-	-	-
Issuances of mortgage and other loans receivable	-	-	50	-	-	-
Borrowings on mortgage loans and notes payable	-	-	-	(10,470)	-	-
Ending balance December 31, XXCY	**$ 139,650**	**$ 53,200**	**$ 12,100**	**$ (77,220)**	**$ 5,000**	**$ (5,000)**
	-	-	-			
Beginning balance December 31, XXPY-1	**$ 125,900**	**$ 39,270**	**$ 11,655**	**$ (67,770)**	**$ -**	**$ -**
Unrealized gain (loss) on real estate investments [1]	(8,000)	(1,120)	100	1,000	-	-
Equity in income of unconsolidated real estate joint ventures [1]	-	20,500	-	-	-	-
Income distributions from unconsolidated real estate joint ventures	-	(11,550)	-	-	-	-
Return of capital from unconsolidated real estate joint ventures [1]	-	(3,000)	-	-	-	-
Purchases of real estate investments/capital improvements	4,700	2,500	-	-	-	-
Proceeds from sale of real estate investments [1]	(1,100)	-	-	-	-	-
Issuances of mortgage and other loans receivable	-	-	45	-	-	-
Borrowings on mortgage loans and notes payable	-	-	-	1,900	-	-
Ending balance December 31, XXPY	**$ 121,500**	**$ 46,600**	**$ 11,800**	**$ (64,870)**	**$ -**	**$ -**

[1] Optional after the adoption of ASU 2018-13

[2] RoU assets and lease liabilities are recognized upon acquisition of new ground lease during the year ended December 31, CY (See Note 2)

The following table shows quantitative information about significant unobservable inputs related to the level 3 fair value measurements used at December 31, XXCY and XXPY:

Footnote 3 - Fair Value Measurements

	December 31, XXCY Fair Value	December 31, XXPY Fair Value	Valuation Technique(s)	Unobservable Inputs	December 31, XXCY Ranges (Weighted Average)	December 31, XXPY Ranges (Weighted Average)
Real estate investments and improvements						
Apartment	$ 52,550	$ 48,000	Discounted cash flows (DCF)	Discount rate Capitalization rate DCF term (years) Revenue growth rate	xx% to xx% (xx%) xx% to xx% (xx%) 10 years (10 years) xx% to xx% (xx%)	xx% to xx% (xx%) xx% to xx% (xx%) 10 years (10 years) xx% to xx% (xx%)
Hotel	$ 45,200	$ 39,700	Direct capitalization method	Direct cap rate	xx% to xx% (xx%)	xx% to xx% (xx%)
Industrial	$ 9,000	$ 6,000	Discounted cash flows (DCF)	Discount rate Capitalization rate DCF term (years) Revenue growth rate	xx% to xx% (xx%) xx% to xx% (xx%) 10 years (10 years) xx% to xx% (xx%)	xx% to xx% (xx%) xx% to xx% (xx%) 10 years (10 years) xx% to xx% (xx%)
Retail	$ 32,900	$ 27,800	Direct capitalization method	Direct cap rate	xx% to xx% (xx%)	xx% to xx% (xx%)
Unconsolidated real estate joint ventures [1]						
Other	$ 14,500	$ 13,200	Discounted cash flows (DCF)	Discount rate Capitalization rate DCF term (years) Revenue growth rate	xx% to xx% (xx%) xx% to xx% (xx%) 10 years (10 years) xx% to xx% (xx%)	xx% to xx% (xx%) xx% to xx% (xx%) 10 years (10 years) xx% to xx% (xx%)
Office	$ 38,700	$ 33,400	Discounted cash flows (DCF)	Discount rate Capitalization rate DCF term (years) Revenue growth rate	xx% to xx% (xx%) xx% to xx% (xx%) 10 years (10 years) xx% to xx% (xx%)	xx% to xx% (xx%) xx% to xx% (xx%) 10 years (10 years) xx% to xx% (xx%)
Mortgage and other loans receivable						
Industrial	$ 5,775	$ 5,600	Discounted cash flows (DCF)	Loan to value ratio	xx% to xx% (xx%)	xx% to xx% (xx%)
Office	$ 6,325	$ 6,200	Net present value	Credit spreads Loan to value ratio Weighted average cost of capital risk premiums	xx% to xx% (xx%) xx% to xx% (xx%) xx% to xx% (xx%)	xx% to xx% (xx%) xx% to xx% (xx%) xx% to xx% (xx%)
Mortgage loans and fund level notes payable						
Property	$ 57,720	$ 55,840	Discounted cash flows (DCF)	Loan to value ratio	xx% to xx% (xx%)	xx% to xx% (xx%)
Fund	$ 19,500	$ 9,030	Net present value	Credit spreads Loan to value ratio Weighted average cost of capital risk premiums	xx% to xx% (xx%) xx% to xx% (xx%) xx% to xx% (xx%)	xx% to xx% (xx%) xx% to xx% (xx%) xx% to xx% (xx%)
RoU assets and lease liabilities - ground leases						
Property Type	$ 5,000	$ -	Discounted cash flows (DCF)	Discount rate DCF term (years)	xx% to xx% (xx%) X years (X years)	xx% to xx% (xx%) X years (X years)

[1] The unobservable inputs for unconsolidated real estate joint ventures are calculated based upon 100% of property fair values regardless of the Account's ownership interest.

Senior management, the asset management team and the accounting team review the valuations quarterly. This consists of comparing unobservable inputs to observable inputs for similar positions, reviewing subsequent market activities, performing comparisons of actual versus projected cash flows, and discussing the valuation methodology, including pricing techniques, when applicable, and key assumptions for each investment. Independent pricing services may be used to corroborate the Account's internal valuations. The approach and resulting value for similar investments is compared as part of the overall review of the portfolio. These valuations are reviewed by the accounting team, which is then presented to senior members of management for approval.

Real estate investments and joint ventures: The significant unobservable inputs used in the fair value measurement of the Account's real estate property and joint venture investments are the selection of certain investment rates (Discount Rate, Terminal Capitalization Rate, Overall Capitalization Rate, and Revenue Growth Rate). [Significant increases or decreases in any of those inputs in isolation would result in significantly lower or higher fair value measurements, respectively.]

Mortgage loans receivable and payable: The significant unobservable inputs used in the fair value measurement of the Account's mortgage loans receivable and payable are the loan to value ratios and the selection of certain credit spreads and weighted average cost of capital risk premiums. [Significant increases (decreases) in any of those inputs in isolation would result in a significantly lower (higher) fair value, respectively][7].

[7] Bracketed wording required for SEC registrants.

4. UNCONSOLIDATED REAL ESTATE JOINT VENTURES

The following is a summary of the fair value basis of assets, liabilities and operating results underlying the Account's unconsolidated real estate joint ventures at December 31, XXCY and XXPY:

	As of December 31, XXCY	As of December 31, XXPY
Land and buildings	$ 102,000	$ 91,000
Other assets	9,000	5,300
Mortgage loans	1,000	-
Other liabilities	3,600	3,100
Net assets	$ 106,400	$ 93,200
Account's share of unconsolidated real estate joint venture net assets	$ 53,200	$ 46,600

Year Ended	December 31, XXCY	December 31, XXPY
Revenues	$ 72,000	$ 71,050
Property operating expenses	27,900	28,750
Interest expense	1,200	1,300
Net investment income	$ 42,900	$ 41,000
Realized and unrealized gain (loss)	$ 6,500	$ (2,240)
Account's equity in income and unrealized gain of unconsolidated real estate joint ventures	$ 24,700	$ 19,380

The real estate joint ventures include investments in several real estate funds that invest primarily in U.S commercial real estate. The fair values of the investments in this category have been estimated using the net asset value of the Account's ownership interest in partners' capital. These investments can never be redeemed with the funds (or these investments may be redeemed quarterly with XX days' notice). Distributions from each fund will be received as the underlying investments of the funds are liquidated. However, the individual investments that will be sold have not yet been determined. Because it is not probable that any individual investment will be sold, the fair value of each individual investment has been estimated using the net asset value of the Account's ownership interest in partners' capital. The Fund's unfunded commitments related to real estate joint ventures were $XXX, XXX at December 31, XXCY.

[If there are ground leases within the unconsolidated real estate joint ventures owned by the Account, fund managers should discuss the appropriate level of disclosure with their respective advisors. Options could include disclosing the RoU asset and lease liabilities in the condensed schedules outlined above, or parenthetically disclosing these amounts if deemed material.]

5. MORTGAGE LOANS AND NOTES PAYABLE

Mortgage loans and notes payable consist of the following as of December 31, XXCY and XXPY:

Footnote 5 - Mortgage Loans and Notes Payable

	XXCY Fair Value	XXCY Cost	XXPY Fair Value	XXPY Cost	Interest Rate [1]	Maturity Date	Terms [3]
Mortgage loans							
Apt 1	$ -	$ -	$ 1,000	$ -	x.xx%[2]	XXXX	P&I, PP
Apt 2	14,760	15,540	14,020	15,540	SOFR (30-day) + x.xx%	XXXX	I
Hotel 1	24,270	25,550	23,060	25,550	SOFR (30-day) + x.xx%	XXXX	I
Industrial 1	4,060	4,270	3,860	4,340	SOFR (30-day) + x.xx%	XXXX	I
Retail 1	14,630	15,400	13,900	16,870	SOFR (30-day) + x.xx%	XXXX	I
Total mortgage loans payable	**$ 57,720**	**$ 60,760**	**$ 55,840**	**$ 62,300**			
Fund Level Notes Payable							
Line of credit	$ 9,500	$ 10,000	$ 9,030	$ 7,990	Weekly Variable [4]	XXXX	I
Private placement notes	10,000	10,000			SOFR (30-day) + x.xx%	XXXX	I
Total fund level notes payable	**$ 19,500**	**$ 20,000**	**$ 9,030**	**$ 7,990**			
Total mortgage loans and fund level notes payable	**$ 77,220**	**$ 80,760**	**$ 64,870**	**$ 70,290**			

[1] As of December 31, XXCY, SOFR was x.xxxx%.

[2] The loan has a floating interest rate of x.xx% over SOFR however the venture is obligated to pay a fixed rate of x.xx% with the venture partner assuming all interest rate risk or benefit.

[3] Loan Terms PP=Prepayment penalties applicable to loan, I=Interest only, P&I=Principal and Interest

[4] The Weekly Variable Rate shall be the minimum rate of interest necessary, in the professional judgment of the Remarketing Agent, taking into consideration prevailing market conditions, to enable the Remarketing Agent to remarket all of the Bonds on the applicable Rate Determination Date at par plus accrued interest on the bonds for that week.

Mortgage loans payable for wholly owned properties and consolidated partnerships are collateralized by real estate investments with an aggregate estimated value of $xxx,xxx and $xxx,xxx as of December 31, XXCY and XXPY, respectively. The loan agreements contain financial and non-financial covenants, including requirements regarding net assets, leverage ratio, and debt service coverage ratio. The Account believes it was in compliance with all covenants as of and for the year ended December 31, XXCY.

As of December, XXCY principal amounts of mortgage loans and notes payable on wholly-owned properties and consolidated accounts are payable as follows:

Year Ended December 31	
XXCY+1	$ -
XXCY+2	-
XXCY+3	-
XXCY+4	-
XXCY+5	-
Thereafter	80,760
Total	**$ 80,760**

The Account has evaluated its debt instruments to identify those maturing over the next 12 months. The Account has $XX of debt maturing within the next 12 months, which it intends to settle through refinance or repayment with cash from financings, net cash flows from operations, or proceeds from property dispositions.

6. INTEREST RATE SWAPS AND CAPS

Certain of Account's equity method and consolidated joint ventures entered into interest rate swap and cap transactions ("Swaps and Caps") with unrelated major financial institutions. The Account has agreements with each derivative counterparty that contain a provision where if the Account defaults on any of its indebtedness, then the Account could also be declared in default on its derivative obligations.

The Account has recorded the fair values of the Swaps and Caps as of December 31, XXCY and XXPY, which have been reflected in "Other liabilities" or "Prepaid and other assets" on the Consolidated Statements of Net Assets. The resulting unrealized gain (loss) is reflected in the consolidated statements of operations in "Change in unrealized gain (loss) on interest rate swaps and caps" and "Portion attributable to noncontrolling interests".

As of December 31, 20XX and 20XX, interest rate Swaps and Caps are summarized as follows:

	Type of contract	Notional Amount	Rate	Fair Value XXCY	Fair Value XXPY	Maturity Date
Real estate investments						
Property 1	Pay-fixed swap	$ -	x.xx%	$ -	$ -	July XXXX
Property 2	Pay-floating swap	-	x.xx%	-	-	July XXXX
Property 3	Cap	-		-	-	July XXXX
Total real estate investments		**$ -**		**$ -**	**$ -**	
Unconsolidated real estate joint ventures						
Property 1	Pay-fixed swap	$ -	x.xx%	$ -	$ -	January XXXX
Property 2	Pay-fixed swap	-	x.xx%	-	-	March XXXX
Property 3	Pay-fixed swap	-	x.xx%	-	-	February XXXX
Property 4	Cap	-		-	-	April XXXX
Total unconsolidated real estate joint ventures		**$ -**		**$ -**	**$ -**	
Total		**$ -**		**$ -**	**$ -**	

7. PORTFOLIO DIVERSIFICATION (Optional to include below or in SOI)

At December 31, XXCY, the Account had real estate investments located throughout the United States of America. The diversification of the Account's holdings based on the estimated fair values and established NCREIF divisions is as follows:

Region		Fair Value	Region %
East North Central	$	75,649	28
Mideast		48,631	18
Mountain		48,631	18
Northeast		24,316	9
Pacific		24,316	9
Southeast		24,316	9
Southwest		24,316	9
Total	$	270,175	100

8. RELATED PARTY FEES AND AFFILIATE TRANSACTIONS

Note: *The below examples are illustrative only and may not represent a comprehensive list of related party/affiliate transactions for a specific Account. The intent is to provide full transparency of related party and affiliate transactions of each Account. Some Investment Managers or General Partners may decide to disclose additional detailed information about related party or affiliate transactions in a separate report to investors.*

Third-party payments facilitated by the Investment Advisor/General Partner that are subsequently reimbursed by the Account do not meet the definition of related party transactions under ASC 850.

The examples include various fees and expenses that may be paid to the Investment Advisor/General Partner and do not necessarily correspond to the types of fees used to calculate the net of fee returns or for performance assessments.

This disclosure is not a tool to be used for comparison across Accounts.

The Account incurred Investment Management Fees, Reimbursements, Property Service Fee & Expenses and Other Related Party Transactions of $xxx,xxx, $xxx,xxx, $xxx,xxx and $xxx,xxx, respectively, for the year ended December 31, XXCY and $xxx,xxx, $xxx,xxx, $xxx,xxx and $xxx,xxx, respectively, for the year ended December 31, XXPY as illustrated below.

Investment Management Fees - The Account has engaged the [Investment Advisor] [General Partner] to provide acquisition, disposition, investment management and other services. Below is a detailed summary of the fees incurred for these services for the years ended December 31, XXCY and XXPY as well as where they are recorded in the financial statements:

Investment Management Fees:	Financial Statement Caption	Year Ended XXCY	Year Ended XXPY	Fee Description
Acquisition	Cost basis of real estate investments	$xxx,xxx	$xxx,xxx	XX bp of Total capital committed
Development	Cost basis of real estate investments	xxx,xxx	xxx,xxx	XX bp of Total development costs
Financing	Financing costs	xxx,xxx	xxx,xxx	XX bp of Original principal balance
Loan Origination	Financing costs	xxx,xxx	xxx,xxx	XX bp of Projected principal balance
Investment Management	Investment management fees	xxx,xxx	xxx,xxx	X% of Net operating income
Disposition	Realized gain (loss) from sales of real estate investments	xxx,xxx	xxx,xxx	XX bp of Gross sale price
Incentive [1]	Unrealized gain (loss) on real estate investments	xxx,xxx	xxx,xxx	XX% over XX% IRR [1]
Total Investment Management Fees		**$xxx,xxx**	**$xxx,xxx**	

[Add additional fee description details as appropriate]

([1])Incentive Fee - In accordance with the Fund's governing documents, the Investment Advisor of the Account, is entitled to earn an incentive fee equal to XX% of investment returns after the Limited Partners achieve a XX% internal rate of return. The incentive fee is only payable upon certain events in accordance with the Account's governing documents.

Investment Management fees, Acquisition fees, Development fees and Financing fees totaling $xx,xxx and $xx,xxx were payable at December 31, XXCY and XXPY, respectively and are included in other liabilities within the consolidated statements of net assets.

Incentive fees of $xx,xxx and $xx,xxx were payable at December 31, XXCY and XXPY, respectively and are included in accrued incentive fees within the consolidated statements of net assets.

[This is an example disclosure that is not reflected in the Statement of Changes in Net Assets] General Partner Promote -The Partnership agreement provides for distributions to the investors disproportionate to their pro-rata invested capital in the event that the preferred return, as defined, has been paid and all invested capital has been returned. Distributions are first allocated 100% to all investors, in accordance with their ownership interest until invested capital has been returned and the investors have achieved a X% preferred return accrued on its invested capital. Distributions are then allocated XX% to Limited Partners and XX% to the General Partner. An incentive reallocation in the amount of $x,xxx,xxx would be due to the General Partner based on a hypothetical liquidation of the Account as of December 31, XXCY and is included in the consolidated statement of changes in net assets.

Reimbursements - In accordance with the Account's Limited Partnership Agreement, the Partnership will reimburse the [Investment Advisor] [General Partner] for costs and services that are incurred by the [Investment Advisor] [General Partner] on behalf of the Account. Below is a summary of the costs and services that the Partnership reimbursed to the [Investment Advisor] [General Partner] for the years ended December 31, XXCY and XXPY as well as where they are recorded in the financial statements:

Reimbursements	Financial Statement Caption	Year Ended XXCY	Year Ended XXPY
In-house Legal	Administrative expenses	$xxx,xxx	$xxx,xxx
In-house Accounting	Administrative expenses	xxx,xxx	xxx,xxx
In-house Proprietary Software	Administrative expenses	xxx,xxx	xxx,xxx
Total Reimbursements		**$xxx,xxx**	**$xxx,xxx**

[Add additional Account/Partnership reimbursement description details as appropriate]

Of the reimbursement amounts incurred above, $xxx and $xxx were included in other liabilities as of December 31, XXCY and XXPY, respectively.

Property Service Fees & Expenses –The Account receives services under various agreements from an [affiliate] or [entity that the General Partner holds an ownership interest in], associated with the ongoing operations of the investments. Below is a detailed summary of the fees incurred for these services for the years ended December 31, XXCY and XXPY as well as where they are recorded in the financial statements:

Property Service Fees & Expenses:	Financial Statement Caption	Year Ended XXCY	Year Ended XXPY	Fee Description
Property Management	Administrative expenses	$xxx,xxx	$xxx,xxx	XX-XX bp of Gross receipts
Construction Management	N/A	xxx,xxx	xxx,xxx	XX bp of Development budget
Leasing	N/A	xxx,xxx	xxx,xxx	XX bp of Contract rent
Brokerage	N/A	xxx,xxx	xxx,xxx	XX bp of Sales price
Financing	Financing costs	xxx,xxx	xxx,xxx	XX bp of Projected principal balance
Payroll/benefits for on-site management	Administrative expenses	xxx,xxx	xxx,xxx	N/A
Total Property Service Fees & Expenses		**$xxx,xxx**	**$xxx,xxx**	

[Add additional Service Fees & Expenses description details as appropriate]

Of the service fees & expense amounts incurred above, $xxx and $xxx were included in other liabilities as of December 31, XXCY and XXPY, respectively.

[Note that Financial Statement Captions above will be different for Non-Operating model reporters]

Other Related Party Transactions with the [Investment Advisor] [General Partner]

The [Investment Advisor] [General Partner] occupies space in a building that is owned by the Account. The contractual lease is for a period of X years at an annual rental amount of $xxx.

Certain employee investors affiliated with the [Investment Advisor] [General Partner] have invested alongside the Account for purposes of acquiring underlying properties. The contractual terms and requirements of the employee investors are generally consistent with all third-party investors, except employee investors are not charged investment management fees or promote.

Certain non-consolidated joint ventures have incurred property management fees of $xxx and $xxx to the Investment Advisor for the years ended December 31, XXCY and XXPY, respectively.

[Add more details for related party transactions where the manager allocates expenses across multiple Accounts as appropriate]

9. LEASING

At December 31, XXCY, minimum future rental payments to be received (as lessor) under non-cancelable operating leases having a term of more than one year are as follows:

Year Ending December 31	
XXCY+1	$ 107,270
XXCY+2	110,480
XXCY+3	113,790
XXCY+4	117,200
XXCY+5	120,720
Thereafter	621,700
Total	$ 1,191,160

The above future minimum base rentals exclude residential lease agreements with terms of less than one year, which accounted for approximately xx% and xx% of the Account's annual rental income for the years ended December 31, XXCY and XXPY, respectively. Rental income for the years ended December 31, XXCY and XXPY included approximately $xxx,xxx and $xxx,xxx, respectively, recovered from tenants for common area expenses, other reimbursable costs, and percentage rents.

Certain properties within the Account are subject to a ground lease agreement. These ground leases have lease expiration dates that range from 20XX to 20XX, with a weighted average remaining non-cancelable term of X years across the Account. The amount of ground lease rent expense incurred during the years ended December 31, XXCY and XXPY was $250 in both years, which is presented within real estate expenses and taxes on the accompanying consolidated statements of operations.

At December 31, XXCY, minimum future ground lease rent payments to be made (as lessee) under non-cancellable ground leases are as follows:

Year Ending December 31	
XXCY+1	$ 250,000
XXCY+2	250,000
XXCY+3	250,000
XXCY+4	250,000
XXCY+5	275,000
Thereafter	20,625,000
Total	$ 21,900,000

10. **FINANCIAL HIGHLIGHTS —** Open **End, Unitized Fund Example (Required only for entities reporting as investment companies within the scope of ASC 946** *[Inconsistencies have arisen in determining the total expense ratio for non-operating model funds and operating model funds. Non-operating model funds typically include expenses as presented on the income statement in the numerator for calculating the total expense ratio. Diversity in practice exists for operating model funds where some present the expense ratio only including fund level expenses (i.e., management fees, etc. and exclude property operating expenses) in the numerator while others present the expense ratio using expenses*

in the numerator as they are presented on the income statement (inclusive of both fund and property level expenses). Fund managers should consider whether fund level expenses only should be included in the numerator to provide for greater comparability across operating model and non-operating model funds.]

The Account computes net assets on a quarterly [monthly] basis. An individual limited partner's total return and average net assets may differ due to the timing of contributions and redemptions. The financial highlights for the years ended December 31, XXCY and XXPY are as follows:

	December 31, XXCY	December 31, XXPY
Net assets, beginning of period	**$ 253,356**	**$ 322,715**
Income in net assets resulting from operations:		
Investment income, before management fees	50,045	46,009
Net realized and unrealized gain (loss) on investments	16,139	(5,909)
Total income from investment operations, before management fees	66,184	40,100
Management fees	1,188	950
Total income from investment operations	64,996	39,150
Net increase (decrease) resulting from capital transactions	(190)	190
Net assets, end of period	**$ 318,162**	**$ 253,356**
Total return, before management fees[1]:	**23.8%**	**23.5%**
Total return, after management fees[1]:	**23.4%**	**23.5%**
Ratios to average net assets[2]:		
Total expenses	8.1%	7.6%
Incentive allocation	0 %	%
Total expenses and incentive allocation	8.1 %	7.6 %
Net investment income	18.4%	17.2%

All amounts are shown net of amounts allocated to noncontrolling interests

[1] Total Return, before/ after management fees is calculated by geometrically linking quarterly returns which are calculated using the formula below:

$$\frac{\text{Investment Income before/after Management Fees + Net Realized and Unrealized Gains/Losses}}{\text{Beg. Net Asset Value + Time Weighted Contributions - Time Weighted Distributions}}$$

[2] Average net assets are based on beginning of quarter net assets.

FINANCIAL HIGHLIGHTS Closed End, Finite-lived, Non-unitized Fund Example (Required only for entities reporting as investment companies within the scope of ASC 946)

The Account computes net assets on a quarterly [monthly] basis. The financial highlights for the years ended December 31, XXCY and XXPY are as follows:

	December 31, XXCY	December 31, XXPY
Total return:		
Beginning of year - Internal rate of return [1]	14.0 %	12.5 %
End of year - Internal rate of return [1]	15.0 %	14.0 %
Ratios/supplemental data:		
Net assets, end of period	$ 318,162	$ 253,356
Ratios to average net assets[2]:		
Total expenses	8.1 %	7.9 %
Incentive allocation	0.0 %	%
Total expenses and incentive allocation	8.1 %	7.9 %
Net investment income	18.4 %	17.5 %
Ratio of total contributed capital to committed capital	90 %	89 %

[1] Total return is calculated based on a dollar-weighted internal rate of return methodology net of fees and incentive allocations. Internal rate of return is computed on a cumulative, since inception basis using annual compounding and the actual dates of cash inflows received by and outflows paid to limited partners and including ending net asset value as of each measurement date.

[2] Average net assets are calculated based on an average of beginning quarterly net assets.

11. COMMITMENTS AND CONTINGENCIES

ASC 460, *Guarantees* ("ASC 460"), specifies the accounting for and disclosures to be made regarding obligations under certain guarantees.

The Account may issue loan guarantees to obtain financing agreements and/or preferred terms related to its investments. These guarantees include mortgage and construction loans and may cover payments of principal and/or interest. These guarantees have fixed termination dates and become liabilities of the Account in the event the borrower is unable to meet the obligations specified in the guarantee agreement. The Account may also be liable under certain of these guarantees in the event of fraud, misappropriation, environmental liabilities, and certain other matters involving the borrower.

The Account is a guarantor of the following outstanding recourse obligations:

Real Estate Investment	Expiration Date	Maximum Obligation	Fair Value of Guarantee Liability [1]
Apartment 1	6/30/XXXX	$ 1,140	$ 2,900

[1] The fair value of guarantees are included in other liabilities on the balance sheet with a corresponding adjustment to the cost basis of the related investment.

In the normal course of business, the Account enters into other contracts that contain a variety of representations and warranties and which provide general indemnifications. The Account's maximum exposure under these arrangements is unknown, as this would involve future claims that may be made against the Account that have not yet occurred. However, based on experience, management expects the risk of loss to be remote.

As of December 31, XXCY, the Account had the following contractual commitments to purchase real estate or fund additional expenditures on previously acquired properties, which are expected to be funded in XXCY+1:

Property Type	Commitment
Apartment	$ 1,550
Retail	5,200
Office	3,900
Industrial	2,050
Loan	8,300
Total	$ 21,000

Certain purchases of real estate are contingent on a developer building the real estate according to plans and specifications outlined in the pre-sale agreement and other conditions precedent. It is anticipated that funding will be provided by operating cash flow, real estate sales, deposits from clients and Account's line of credit.

The Account purchased various real estate investments during XXCY that include earn-out provisions. An amount of $xxx,xxx has been accrued as of December 31, XXCY and is included in accrued real estate expenses and taxes on the consolidated statements of net assets.

There were various legal actions relating to the properties in the Account in the ordinary course of business. In the opinion of the Account's management, the outcome of such matters will not have a material effect on the Account's financial condition or results of operations.

12. FORWARD COMMITMENTS

On October 3, XXCY, the Account entered into a forward purchase agreement with ABC, LLC (Seller) to purchase upon the construction completion of a 200,000 square foot office building located in Miami, Florida.

The purchase price for the property shall be $xx million subject to adjustments per the purchase and sale agreement. As of December 31, XXCY, the Account made a total of $X million escrow deposit, which is included in prepaid expenses and other assets in the accompanying combined statements of net assets.

13. SUBSEQUENT EVENTS

The Account has evaluated events subsequent through XXXX X, XXCY+1

* * * * * *

Appendix 2:

Illustrative financial statements for Non-operating Model

The accompanying financial statements are illustrative only and provide a general format for annual financial statement prepared on a fair value basis of accounting using the Non-operating Model. While the illustrative statements in this appendix reflect a financial statement presentation commonly used by investment companies, diversity in practice has evolved over time in which non-pension real estate funds meeting the criteria of an investment companies may elect to apply certain presentation or disclosure attributes of the Operating Model (e.g. gross financial statement presentation). Disclosures included in the illustrative financial statements are not intended to be comprehensive and are not intended to establish preferences amongst alternative disclosures.

Note: The accompanying financial statement example is presented on a comparative basis; however, some entities may utilize a single year presentation within their financial statements.

XYZ Real Estate Fund, LP

Financial Statements for the Years Ended December 31, XXCY and XXPY

XYZ REAL ESTATE FUND, LP

STATEMENTS OF NET ASSETS
AS OF DECEMBER 31, XXCY AND XXPY (in thousands)

	XXCY	XXPY
Assets:		
Real estate investments - at fair value (cost of $XXX and $XXX, respectively)	$ 325,687	$ 253,586
Cash and cash equivalents	12,450	9,255
Other assets	160	125
Total assets	**338,297**	**262,966**
Liabilities:		
Fund level notes payable - at fair value (cost of $XXX and $XXX, respectively	19,500	9,030
Other liabilities	375	330
Accrued incentive fees	260	250
Total liabilities	**20,135**	**9,610**
Net assets	**$ 318,162**	**$ 253,356**

See accompanying notes to the financial statements
For illustrative purposes only - Non-operating model financial statements

* - This presentation assumes the manager is eligible for an incentive fee that would be reflected on statement of net assets and statement of operations. Alternatively, if the manager, GP or affiliate was a member of the JV and eligible for a promote distribution then the presentation on the statement of changes in net assets would be appropriate.

XYZ REAL ESTATE FUND, LP

SCHEDULE OF INVESTMENTS
FOR THE YEARS ENDED DECEMBER 31, XXCY AND XXPY (in thousands)

Investment	City, State	Acquisition Date	Square Feet Unless Otherwise Indicated (Unaudited)	December 31, XXCY Cost	December 31, XXCY Fair Value	December 31, XXPY Cost	December 31, XXPY Fair Value
Real estate owned and joint ventures							
Apartment							
Apt 1 Legal Entity Name	City, State	1/1/XXXX	xxx units	$ 24,800	$ 44,850	$ 24,500	$ 39,725
Apt 2 Legal Entity Name	City, State	1/1/XXXX	xxx units	6,860	37,460	6,660	37,284
Total apartment	25.87% of NAV as of 12/31/CY			31,660	82,310	31,160	77,009
Hotel							
Hotel 1 Legal Entity Name	City, State	1/1/XXXX	xxx rooms	12,950	44,522	10,950	39,863
Total hotel	13.99% of NAV as of 12/31/CY			12,950	44,522	10,950	39,863
Industrial							
Industrial 1 Legal Entity Name	City, State	1/1/XXXX	xxx	1,930	21,060	1,760	12,139
Total industrial	6.62% of NAV as of CY			1,930	21,060	1,760	12,139
Retail							
Retail 1 Legal Entity Name	City, State	1/1/XXXX	xxx	8,700	26,270	5,130	21,075
Total retail	8.26% of NAV as of 12/31/CY			8,700	26,270	5,130	21,075
Other investments							
Other 1 Legal Entity Name	City, State	1/1/XXXX	N/A	12,500	27,500	12,400	10,200
Total other investments	8.64% of NAV as of CY			12,500	27,500	12,400	10,200
Office							
Office 1 Legal Entity Name	City, State	1/1/XXXX	xxx	34,350	46,700	31,100	27,400
Total office	14.68% of NAV as of CY			34,350	46,700	31,100	27,400
Total real estate owned and joint ventures				**102,090**	**248,362**	**92,500**	**187,686**
Mortgage and other loans receivable							
Loan 1 Legal Entity Name	City, State	1/1/XXXX	N/A	5,400	5,775	5,350	5,600
Loan 2 Legal Entity Name	City, State	1/1/XXXX	xxx	5,800	6,325	5,800	6,200
Total mortgage and other loans receivable	3.8% of NAV as of CY			**11,200**	**12,100**	**11,150**	**11,800**
Marketable securities							
Marketable Securities Legal Entity Name	City, State	1/1/XXXX	N/A	61,650	65,225	52,700	54,100
Total marketable securities	20.5% of NAV as of CY			**61,650**	**65,225**	**52,700**	**54,100**
Total real estate investments				**$ 174,940**	**$ 325,687**	**$ 156,350**	**$ 253,586**

See accompanying notes to the financial statements
For illustrative purposes only - Non-operating model financial statements
Note: GAAP requirement is to only disclose assets that are greater than 5% of NAV but funds may elect to disclose all assets

XYZ REAL ESTATE FUND, LP

STATEMENTS OF OPERATIONS
FOR THE YEARS ENDED DECEMBER 31, XXCY AND XXPY (in thousands)

	XXCY	XXPY
Income		
Income distributions from real estate equity investments	$ 43,417	$ 39,909
Interest income from real estate debt investments	8,300	7,800
Other	-	120
Total income	**51,717**	**47,829**
Expenses		
Interest expense	425	395
Administrative expenses	1,185	1,375
Investment management fees	1,250	1,000
Total expenses	**2,860**	**2,770**
Net investment income	**48,857**	**45,059**
Net realized and unrealized gain (loss):		
Realized gain from sales of real estate investments	-	760
Less: previously recorded unrealized gain on sales of real estate investments	-	(475)
Net realized and unrealized gain from the sale of real estate investments	-	285
Unrealized gain (loss) on real estate investments held at year end	16,149	(6,194)
Unrealized incentive fees	(10)	-
Net realized and unrealized gain (loss)	**16,139**	**(5,909)**
Increase in net assets resulting from operations	**$ 64,996**	**$ 39,150**

See accompanying notes to the financial statements
For illustrative purposes only - Non-operating model financial statements

* - This presentation assumes the manager is eligible for an incentive fee that would be reflected on statement of net assets and statement of operations. Alternatively, if the manager, GP or affiliate was a member of the JV and eligible for a promote distribution then the presentation on the statement of changes in net assets would be appropriate.

XYZ REAL ESTATE FUND, LP

STATEMENTS OF CHANGES IN NET ASSETS
FOR THE YEARS ENDED DECEMBER 31, XXCY AND XXPY (in thousands)

	General Partner	Limited Partners	Total
Net assets - December 31, XXPY-1	**$ -**	**$ 214,016**	**$ 214,016**
Increase in net assets resulting from operations	-	39,150	39,150
Contributions	-	570	570
Distributions	-	(380)	(380)
Net assets - December 31, XXPY	**-**	**253,356**	**253,356**
Increase in net assets resulting from operations	-	64,996	64,996
Contributions	-	285	285
Distributions	-	(475)	(475)
Net assets - December 31, XXCY	**$ -**	**$ 318,162**	**$ 318,162**

See accompanying notes to the financial statements
For illustrative purposes only - Non-operating model financial statements

* - This presentation assumes the manager is eligible for an incentive fee that would be reflected on statement of net assets and statement of operations. Alternatively, if the manager, GP or affiliate was a member of the JV and eligible for a promote distribution then the presentation on the statement of changes in net assets would be appropriate.

XYZ REAL ESTATE FUND, LP

STATEMENTS OF CASH FLOWS
FOR THE YEARS ENDED DECEMBER 31, XXCY AND XXPY (in thousands)

	XXCY	XXPY
Cash flows from operating activities:		
Increase in net assets resulting from operations	$ 64,996	$ 39,150
Adjustments to reconcile increase in net assets resulting from operations to net cash flows provided by (used in) operating activities:		
Net realized and unrealized (gain) loss	(16,139)	5,909
Change in other assets	(35)	200
Change in other liabilities	45	50
Change in accrued incentive fee	10	1,005
Return of capital distributions from real estate investments	-	-
Funding of real estate investments	(55,962)	(40,168)
Proceeds from real estate investments sold	-	760
Net cash flow provided by (used in) operating activities	**(7,085)**	**6,906**
Cash flows from financing activities:		
Proceeds from loans payable	10,470	-
Distributions	(475)	(380)
Contributions	285	570
Net cash flow provided by financing activities	**10,280**	**190**
Net change in cash and cash equivalents	**3,195**	**7,096**
Cash and cash equivalents — Beginning of year	9,255	2,159
Cash and cash equivalents — End of year	**$ 12,450**	**$ 9,255**
Supplemental cash flow information:		
Cash paid for interest on loans payable	$ 425	$ 395
Cash paid for income taxes	12	10

See accompanying notes to the financial statements
For illustrative purposes only - Non-operating model financial statements

XYZ REAL ESTATE FUND LP

NOTES TO FINANCIAL STATEMENTS
FOR THE YEARS ENDED DECEMBER 31, XXCY AND XXPY

1. ORGANIZATION

XYZ Real Estate Fund LP (the "Fund") was formed on January 1, XXXX for the purpose of generating income and appreciation on real estate investments in the United States of America. The investment advisor of the Fund is ABC Real Estate Advisors, L.P. ("ABC" or the "Advisor"). The aggregate committed capital for the Fund is $200 million. The limited partners committed $190 million and the general partner committed $10 million. The terms of the partnership agreement do not generally provide for new subscription or redemption of partners' interests. The general partner of the Fund is ABC, L.P., an affiliate of the Advisor. At December 31, XXCY, the ratio of total contributed capital to committed capital was 90%.

The Fund is an investment company as described in Accounting Standards Codification ("ASC") 946, *Financial Services – Investment Companies.*

See standard disclosures in the Operating model illustrative financial statements. Disclosures unique to the Non-operating model are provided below.

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Basis of presentation — *See Operating Model illustrative financial statements*.

Use of estimates — *See Operating Model illustrative financial statements*.

Real estate investments — Investments in real estate are carried at fair value. Cost to acquire real estate investments are capitalized as a component of investment cost. In certain investment arrangements, the Fund's equity percentage interest in the investment may be reduced by third party residual interests for returns realized in excess of specific hurdle rates of return. Such residual interests have been considered in the related investment valuation.

Investments in mortgage and other notes receivables — *See Operating Model illustrative financial statements.*

Investment valuation — The fair values of real estate investments are estimated based on the price that would be received to sell an asset in an orderly transaction between marketplace participants at the measurement date. Investments without a public market are valued based on assumptions made and valuation techniques used by the Advisor. Such valuation techniques include discounted cash flow analysis, prevailing market capitalization rates or earnings multiples applied to earnings from the investment, analysis of recent comparable sales transactions, actual sale negotiations and bona fide purchase offers received from third parties, consideration of the amount that currently would be required to replace the asset, as adjusted for obsolescence, as well as independent external appraisals. In general, the Advisor considers multiple

valuation techniques when measuring the fair value of an investment. However, in certain circumstances, a single valuation technique may be appropriate. The Fund's policy is to obtain independent external appraisals for investments every 12 months. Investments in publicly traded equity securities are valued based on their quoted market prices.

The fair value of real estate investments does not reflect the Fund's transaction sale costs, which may be incurred upon disposition of the real estate investments. Such costs are estimated to approximate 2% - 3% of gross property fair value. The Fund also reflects its real estate equity investments net of investment level financing. Valuation adjustments attributable to underlying financing arrangements are considered in the real estate equity valuation.

The Fund may invest in real estate and real estate related investments for which no liquid market exists. The market prices for such investments may be volatile and may not be readily ascertainable. In addition, there continues to be significant disruptions in the global capital, credit and real estate markets. These disruptions have led to, among other things, a significant decline in the volume of transaction activity, in the fair value of many real estate and real estate related investments, and a significant contraction in short-term and long-term debt and equity funding sources. This contraction in capital includes sources that the Fund may depend on to finance certain of its investments. These market developments have had a significant adverse impact on the Fund's liquidity position, results of operations and financial condition and may continue to adversely impact the Fund if market conditions continue to deteriorate. The decline in liquidity and prices of real estate and real estate related investments, as well as the availability of observable transaction data and inputs, may have made it more difficult to determine the fair value of such investments. As a result, amounts ultimately realized by the Fund from investments sold may differ from the fair values presented, and the differences could be material.

Concentrations of credit risk — *See Operating Model illustrative financial statements*.

Cash and cash equivalents — *See Operating Model illustrative financial statements*.

Mortgage loans and fund level notes payable — *See Operating Model illustrative financial statements*.

Interest rate swaps and caps — *See Operating Model illustrative financial statements*.

Income and expense recognition — Distributions from real estate equity investments are recognized as income when received to the extent such amounts are paid from earnings and profits of the underlying investee. Interest income on real estate debt investments is generally accrued as earned in accordance with the effective interest method. For loans in default, interest income is not accrued but is recognized when received. Expenses are recognized as incurred.

Investment advisory fees — *See Operating Model illustrative financial statements*.

Income taxes — As a partnership, the Fund itself is not subject to U.S. Federal income taxes. Accordingly, income taxes are not considered in the accompanying financial statements since such taxes, if any, are the responsibility of the individual partners. Income from non-U.S. sources may be subject to withholding and

other taxes levied by the jurisdiction in which the income is sourced. If an uncertain income tax position were to be identified, the Fund would account for such in accordance with ASC 450, *Contingencies*.

ASC Subtopic 740, *Income Taxes*, provides guidance for how uncertain tax positions should be recognized, measured, presented and disclosed in the financial statements. ASC 740 requires the evaluation of tax positions taken in the course of preparing the Fund's tax returns to determine whether tax positions are "more-likely-than-not" of being sustained by the applicable tax authority. Tax benefits of positions not deemed to meet the more-likely-than-not threshold would be recorded as a tax expense in the current year.

Guarantees — *See Operating Model illustrative financial statements*.

Foreign currency — *See Operating Model illustrative financial statements*.

Risk management — *See Operating Model illustrative financial statements*.

3. **Recently issued accounting standards** - *See Operating Model illustrative financial statements*.

4. **FAIR VALUE MEASUREMENTS –** *See Operating Model illustrative financial statements.*

5. **LOANS PAYABLE —** *See Operating Model illustrative financial statements.*

6. **INTEREST RATE SWAPS AND CAPS —** *See operating Model illustrative financial statements.*

7. **PORTFOLIO DIVERSIFICATION —** *See Operating Model illustrative financial statements.*

8. **RELATED PARTY FEES AND AFFILIATE TRANSACTIONS -** *See Operating Model illustrative financial statements.*

9. **FINANCIAL HIGHLIGHTS -** *See Operating Model illustrative financial statements.*

10. **COMMITMENTS AND CONTINGENCIES** - *See Operating Model illustrative financial statements.*

11. **FORWARD COMMITMENTS** - *See Operating Model illustrative financial statements.*

12. **SUBSEQUENT EVENTS** - *See Operating Model illustrative financial statements.*

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HANDBOOK VOLUME II: MANUALS



NCREIF PREA

Reporting Standards

Updated | March 14, 2022

PERFORMANCE AND RISK

This NCREIF PREA Reporting Standards Manual has been developed with participation from NCREIF's Performance Measurement Committee and the leverage task force of the Reporting Standards Performance and Risk Workgroup. The Manual has been endorsed and approved by the Reporting Standards Council.

NCREIF PREA pension real estate association

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INTRODUCTION

Overview

The Performance and Risk Manual ("PRM") has been created to provide U.S. private, institutional real estate investment industry participants (collectively, the Industry) a resource to better understand, measure, and manage performance and risk within their real estate investments in a meaningful, transparent, and consistent manner. The scope of this content includes guidance related to:

- Performance and risk measurement elements in the NCREIF PREA Reporting Standards Volume I (Volume I)
- Data elements captured within the NCREIF Fund Indices (NFI) and NCREIF Property Index (NPI)
- Other less frequently reported performance and risk measures used in the Industry

Organization of Contents

It is anticipated that the PRM will primarily be used as a reference for the performance professional in the Industry. As the guidance contained in the PRM may be used for a variety of different purposes, the PRM is organized in three main sections via the Table of Contents: 1) Formulas, 2) Background & Discussion, and A) Appendices. These sections are oriented to allow the user to start with the basics expression of methodology (Formulas) before layering in more granular details relating to the calculation of performance and risk measures. The subject areas below are reviewed within the manual:

- Performance and risk measures, including, but not limited to: Time-weighted Returns, Internal Rate of Returns, equity multiples, risk, leverage, etc.
    - For each measure, specific discussions on how the measure is utilized/calculated at each reporting level, namely:
        - Fund or Account Level[1] (Volume I)
        - Investment Level
        - Property Level
- Appendices including, but not limited to: illustrative examples of certain measures including Tier 1 leverage and the Total Global Expense Ratio; information elements for performance measurement; and sample fund and property level performance presentations.

When looking at performance of a fund, real estate investing is unique in that performance can be viewed in a more granular way than the broader investment industry. For example, real estate can be analyzed at the property level to assess how well a physical property can return profit (or not) without the impacts of ownership (e.g., joint venture, operating company, etc.), investment management, and fund structure (e.g., open-end, closed-end, SMAs). Property level performance can be computed irrespective of ownership structure (e.g., the NCREIF Property Index) or adjusted for ownership share (e.g., the ODCE attribution "property at share"). At the investment level, the impact of ownership structuring, including deal level

[1] For purposes of the PRM, Fund Level includes Separately Managed Accounts (SMAs).

promotes, as well as the impact of deal level cash, other assets and other liabilities are factored in so that analytics can lead to a clearer understanding of investment management decisions. At the fund level, investments are aggregated to produce "Account level" performance. Both Fund level and Account level and can be analyzed to facilitate understanding of the interrelationships of investments in the context of the overall fund structure and strategy (e.g., core, value-add, opportunistic).

Currently, the PRM does not address investor specific reporting. This topic is on the strategic agenda for the Reporting Standards Board and Council and performance-related investor specific reporting matters will be incorporated when appropriate.

Foundational Standard for Performance: Global Investment Performance Standards (GIPS®)

As noted in Volume I, the Reporting Standards build on, but are not intended to replace, established standards issued by authoritative organizations including, but not limited to the following: the Global Investment Performance Standards (GIPS®) promulgated by CFA Institute; accounting principles generally accepted in the United States of America (GAAP) established by the Financial Accounting Standards Board (FASB); and the Uniform Standards of Professional Appraisal Practice (USPAP) developed by the Appraisal Standards Board of the Appraisal Foundation. Collectively, these established standards are referred to as the Foundational Standards throughout the Reporting Standards.

The PRM includes concepts that are consistent with the 2020 edition of the GIPS® standards and effective beginning January 1, 2020. The GIPS® standards are applied on a firm-wide basis and serve to promote consistency, transparency, and full disclosure to allow any prospect or beneficiary to understand investments which are being entered into or approved. Whereas the PRM will draw on the GIPS® standards for basic ethical principles with a focus on full disclosure and fair representation as it applies to calculation methods and disclosures, the PRM will provide best practices reporting to existing investors as those reporting needs can be different. It is important to note that the PRM does not contradict the GIPS® standards but rather supplements the GIPS® standards by providing guidance appropriate for institutional real estate reporting, which can be more granular than required by the GIPS® standards.

It is important to note that compliance with the GIPS® standards is not a requirement for compliance with the Reporting Standards. Although some of the information required for GIPS® compliance is similar to that required for Reporting Standards compliance, the compliance process for the Reporting Standards and the GIPS® standards are separate activities.

Defined Terms

Words appearing in capital letters in the PRM are defined in the Global Definitions Database or within this document.

Disclaimers

The metrics listed may not be appropriate for all fund investment structures and strategies so it is up to the user to determine the applicability of each item as it relates to each entity (the term "entity" will be used throughout the PRM most broadly to refer to a fund, investment, or property).

Contrasted with performance measured for the market driven public investments Industry, the input data that is used to calculate the various measures described in the PRM generally come directly from or can be derived from the entity's financial statements or fair value accounting books and records. The Reporting Standards require financial statements prepared in accordance with Fair Value Generally Accepted Accounting Principles in the United States (FV GAAP). Guidance related to FV GAAP for the Industry is described in the Reporting Standards Fair Value Accounting Policy Manual. Although calculated NAV should be the same in any FV GAAP, caution should be exercised when comparing performance results of components of NAV (e.g., net investment income, appreciation, expense ratios, etc.) prepared under different FV GAAP interpretations.

Rate of return formulas reference certain accounting terminology that is generally applicable to fair value reporters using the operating model (reference to reporting standards handbook accounting policy). Formulas may assume fees are a vehicle expense or in the case of promote, an equity allocation to the GP. To the extent that fees are paid directly by investors to the manager or where financial statements are presented under the non-operating model or other basis of accounting, certain adjustments and or disclosures may be required in order to stay consistent with the reporting standards principals or NCREIF index policies.

Revisions

The PRM will be reviewed for updates on an annual basis. Suggestions for improvements, clarifications and additional topics should be directed to administrator@reportingstandards.info.

SECTION 1 – FORMULAS
SECTION 1.01- TIME-WEIGHTED RETURN

Fund Level TWR

Before-fee fund level TWR

Net investment income return (before-fee)

$$\frac{NII + AF + IFE}{NAV_{t-1} + TWC - TWD}$$

Appreciation return (before-fee)

$$\frac{\text{Real Estate Appreciation} + \text{Debt Appreciation}}{NAV_{t-1} + TWC - TWD}$$

Total return (before-fee)

$$\frac{NII + AF + IFE + \text{Real Estate Appreciation} + \text{Debt Appreciation}}{NAV_{t-1} + TWC - TWD}$$

After-fee fund level TWR

Net investment income return (after-fee)

$$\frac{NII}{NAV_{t-1} + TWC - TWD}$$

Appreciation return (after-fee)

$$\frac{\text{Real Estate Appreciation} + \text{Debt Appreciation} — IFC}{NAV_{t-1} + TWC - TWD}$$

Total return (after-fee)

$$\frac{NII + \text{Real Estate Appreciation} + \text{Debt Appreciation} - IFC}{NAV_{t-1} + TWC - TWD}$$

Input Definitions

NII = Net investment income (after interest expense, advisory fees and expensed incentive fees)
AF = Advisory fee expense
IFE = Incentive fee expense and promote
IFC = Change in capitalized incentive fee and promote
NAV_{t-1} = Net asset value of investment at beginning of period
TWC = Time weighted contributions
TWD = Time weighted distributions

Investment Level TWR

Before-fee investment level TWR

Net investment income return (before-fee)

$$\frac{NII + AF + IFE}{NAV_{t-1} + TWC - TWD}$$

Appreciation return (before-fee)

$$\frac{\text{Real Estate Appreciation} + \text{Debt Appreciation}}{NAV_{t-1} + TWC - TWD}$$

Total return (before-fee)

$$\frac{NII + AF + IFE + \text{Real Estate Appreciation} + \text{Debt Appreciation}}{NAV_{t-1} + TWC - TWD}$$

After-fee investment level TWR

Net investment income return (after-fee)

$$\frac{NII}{NAV_{t-1} + TWC - TWD}$$

Appreciation return (after-fee)

$$\frac{\text{Real Estate Appreciation} + \text{Debt Appreciation} - IFC}{NAV_{t-1} + TWC - TWD}$$

Total return (after-fee)

$$\frac{NII + \text{Real Estate Appreciation} + \text{Debt Appreciation} - IFC}{NAV_{t-1} + TWC - TWD}$$

Input Definitions

NII = Net investment income (after interest expense, advisory fees and expensed incentive fees)
AF = Advisory fee expense
IFE = Incentive fee expense (includes promote (carried interest))
IFC = Change in capitalized incentive fee (including promote (carried interest))
NAV_{t-1} = Net asset value of investment at beginning of period
TWC = Time weighted contributions
TWD = Time weighted distributions

Property Level TWR

Unleveraged property level TWR

Net operating income return (unleveraged)

$$\frac{NOI}{FV_{t-1} + (1/2)(CI - PSP) - (1/3)(NOI)}$$

Appreciation return (unleveraged)

$$\frac{(FV_t - FV_{t-1}) + PSP - CI}{FV_{t-1} + (1/2)(CI - PSP) - (1/3)(NOI)}$$

Total return (unleveraged)

$$\frac{NOI + (FV_t - FV_{t-1}) + PSP - CI}{FV_{t-1} + (1/2)(CI - PSP) - (1/3)(NOI)}$$

Leveraged property level TWR

Net operating income return (leveraged)

$$\frac{NOI - DSI}{FV_{t-1} - D_{t-1} + (1/2)(CI - PSP) - (1/3)(NOI - DSI) + (1/3)(DSP) + (1/2)(PD - NL)}$$

Appreciation return (Leveraged)

$$\frac{(FV_t - FV_{t-1}) + PSP - CI - (D_t - D_{t-1} + DSP + PD - NL)}{FV_{t-1} - D_{t-1} + (1/2)(CI - PSP) - (1/3)(NOI - DSI) + (1/3)(DSP) + (1/2)(PD - NL)}$$

Total return (leveraged)

$$\frac{NOI - DSI + (FV_t - FV_{t-1}) + PSP - CI - (D_t - D_{t-1} + DSP + PD - NL)}{FV_{t-1} - D_{t-1} + (1/2)(CI - PSP) - (1/3)(NOI - DSI) + (1/3)(DSP) + (1/2)(PD - NL)}$$

Input Definitions

NOI = Net operating income (before interest expense)
DSI = Debt service interest expense
FV_t = Fair value of property at end of period
FV_{t-1} = Fair value of property at beginning of period
CI = Capital improvements
D_t = Debt at end of period
D_{t-1} = Debt at beginning of period
DSP = Debt service principal payments
PD = Additional principal debt payments
NL = New loan proceeds
PSP = Net sales proceeds for partial sales

Industry Guidance

Reporting Standards

All Vehicles (when TWRs are presented)

- Volume I addresses fund level TWRs only (investment level TWRs and property level TWRs are not addressed).
- PR.01 – Required; Presentation of total and component (income and appreciation) returns before and after fees.
- PR.01 – Required; Presentation of quarterly, 1-year, 3-year, 5-year, 10-year, and since inception TWRs, and returns in excess of 1 year are annualized.
- PR.01.1 – Required; Disclosure of types of fees deducted from the gross (before-fee) return to arrive at the net (after-fee) return.
- PR.01.2 – Required; Disclosure of fees on TWR (which can be expressed, at a minimum, as a basis point range).
- PR.01.3 – Required; Disclosure of periodicity of TWRs.
- PR.01.4 – Required; Disclosure of the methodology used to calculate TWR. The performance returns should use rate of return methodology that adjusts for daily weighted external cash flows to produce returns. Returns must be geometrically linked and periods of greater than one year must be annualized. Specific annualization methodology is not required.
- PR.01.5 – Required; Disclosure of valuation policy, types of fees, basis of accounting, and methodology used to record fees.
- PR.01.7 – Required; Disclosure of start date, end date, and partial period methodology.

Open-End Funds

- PR.01 – Required; Total and component (income and appreciation) returns before and after fees.
- PR.22 – Recommended; Reporting of redemptions for each quarter (PR.20) as well as the total redemption requests.

Closed-End Funds

- PR.01 – Required at investor's request; Total and component (income and appreciation) returns before and after fees.

Separate Accounts

- PR.01 – Recommended; Total and component (income and appreciation) returns before and after fees.

NCREIF Data Products

NPI

- The NPI is a property level TWR index.

- NPI is unleveraged but queries can be made to generate a leveraged property level TWR.
- NPI assumes monthly NOI distributions and mid-quarter cash flows.
- NPI uses 4/number of quarters to annualize cumulative quarterly returns.
- NPI uses 12/number of months to annualize cumulative monthly returns.
- NPI uses partial period Method III where the start date begins on the first day of the first full quarter following acquisition and the end date matches the actual disposition date.

NFI Fund Indices

- The NFI Fund Indices present TWRs except in the case of NFI-CEVA.
- NFI Fund Indices use 4/number of quarters to annualize cumulative quarterly returns.
- NFI Fund Indices use 12/number of months to annualize cumulative monthly returns.
- NFI Fund Indices use partial period Method II where the start date begins on the first day of the first full quarter following acquisition and the end date is the last day of the last full quarter prior to disposition.
- For before-fee and after-fee return purposes, the NFI Fund Indices only consider advisory fees, incentive fees, and carried interest (also known as "promote") when distinguishing between the two calculations. NFI Fund Indices generally present TWRs gross of fees while net of fee TWRs may be presented for informational purposes and as a proxy for the average fees charged.

Link to Background and Discussion

Section 2 – Background and Discussion

Section 2.01 – TIME WEIGHTED RETURN- BACKGROUND AND DISCUSSION

ERROR! REFERENCE SOURCE NOT FOUND.SECTION 1.02- INTERNAL RATE OF RETURN

IRR Formula

The IRR formula discounts Flows F_1 through F_n back to F_0.

$$F_0 + \frac{F_1}{1+IRR} + \frac{F_2}{(1+IRR)^2} + \frac{F_3}{(1+IRR)^3} + .. + \frac{F_n}{(1+IRR)^n} = 0$$

Input Definitions

F_O = Original investment in the entity

F_1 - F_n = Net Cash Flows for each applicable period

Entity not liquidated

F_n = Last period's operating cash flows plus an estimate of the net residual value

Calculation

Sample calculations of gross and net IRR are included in the Background and Discussion section.

Industry Guidance

Reporting Standards

All Vehicles (when IRRs are presented)

- PR.06 – Required; Appropriate disclosures as outlined in this section must be present when IRRs are reported.
- PR.06.1 – Required; Disclosure of the type and level of gross IRR reporting. Gross IRR reporting can be at either levels 1a, 1b or 2.
- PR.06.2 – Required; Disclosure of the types of fees deduced from the gross return to arrive at net, and the net of fees returns presented for all investor classes. The spread between gross and net must be stipulated. Net IRR reporting is required to be reported at Level 4.
- PR.06.3 – Required; The time period and frequency of cash flows for the calculation must be disclosed. At a minimum monthly cash flows must be utilized (beginning 1/1/2020).
- PR.06.4 – Required; Disclosure of the realized IRR end date. If final net assets have not been distributed when the last investment is sold or otherwise disposed, the method used in determining the final distribution and IRR end date must be disclosed.
- PR.06.5 – Required; Disclosures surrounding the use of subscription lines due to variation in practice.

Open-End Funds

- Not applicable.

Closed-End Funds

- PR.06 – Required; Since-inception IRR – Gross and Net of Fees.

Separate Accounts

- PR.06 – Recommended; Since-inception IRR – Gross and Net of Fees.

NCREIF Data Products

NFI-CEVA

- The NFI-CEVA product presents IRR information.

NPI and NFI Fund Indices

- IRRs are not presented or calculated for NPI or NCREIF fund indices other than NFI-CEVA.

Link to Background and Discussion

Section 2.02 – Internal Rate of Return – Background and DISCUSSION

Link to Formulas

SECTION 1.03 – EQUITY MULTIPLES

Equity Multiple Formulas

Investment Multiple or Total Value to Paid-In Capital Multiple (TVPI)

$$\frac{TV}{PIC}$$

Realization Multiple or Cumulative Distributions to Paid-In Capital Multiple (DPI)

$$\frac{D}{PIC}$$

Paid-In Capital Multiple or Paid-In Capital to Committed Capital Multiple (PIC)

$$\frac{PIC}{CC}$$

Residual Multiple or Residual Value to Paid-In Capital Multiple (RVPI)

$$\frac{RV}{PIC}$$

Input Definitions

TV = Total Value
Fund (or SMA) Level: Sum of residual fund net assets (NAV) plus aggregate fund distributions to investors since inception.
Investment Level: Sum of residual investment net assets (NAV) plus aggregate distributions to investors / the fund / SMA which were attributed to the investment.
Property Level: Sum of property fair value (net of debt) plus aggregate distributions paid since inception (Note: if actual property distributions are not separately maintained, estimates can be calculated by aggregating the property's net operating income (after interest expense on any debt) and subtracting principal).

PIC = Paid in Capital; All capital drawn down including the amount recalled.

D = Total Distributions
Fund Level: Aggregate fund distributions paid to investors since inception.
Investment Level: Aggregate investment distributions paid to the fund since inception.
Property Level: Aggregate property distributions paid since inception.

Note that distributions since inception within the Reporting Standards includes all distributions paid regardless of type (i.e., operations and return of capital).

CC = Committed Capital
Fund Level: Cumulative fund PIC plus unfunded capital commitments.
Investment Level: Cumulative investment PIC plus unfunded capital earmarked to the investment.
Property Level: Cumulative property PIC plus unfunded commitments from all owners (e.g., budgeted construction costs or renovation reserves)

RV = Residual Value
RV is defined as NAV representing the remaining equity of a fund, investment, or property.
Fund Level: Net asset value (NAV) of the fund.
Investment Level: Net asset value (NAV) of the investment.
Property Level: Net asset value (NAV) of the property.

Industry Guidance

Reporting Standards

All Vehicles

- PR.03 – Required; Reporting of fund level net asset value.

Open-End Funds

- Not applicable.

Closed-End Funds

- PR.07 – Required; Fund level Paid-in Capital Multiple, quarterly.
- PR.08 – Required; Fund level Investment Multiple, quarterly.
- PR.09 – Required; Fund level Realization multiple, quarterly.
- PR.10 – Required; Fund level Residual multiple, quarterly.
- PR.11 – Required; Since inception distributions, quarterly.
- PR.12 – Required; Aggregate capital commitments, quarterly.
- PR.13 – Required; Since inception paid in capital, quarterly.
- PR.20 – Recommended; Quarterly disclosure of unfunded commitments.

Separate Accounts

- PR.07 – Recommended; Fund level Paid-in Capital Multiple, quarterly.
- PR.08 – Recommended; Fund level Investment Multiple, quarterly.
- PR.09 – Recommended; Fund level Realization multiple, quarterly.
- PR.10 – Recommended; Fund level Residual multiple, quarterly.
- PR.11 – Recommended; Since inception distributions, quarterly.
- PR.12 – Recommended; Aggregate capital commitments, quarterly.

- PR.13 – Recommended; Since inception paid in capital, quarterly.

Link to Background and Discussion

Section 2.03 – Equity Multiples – Background and DISCUSSION

SECTION 1.04 – TOTAL GLOBAL EXPENSES RATIO

TGER Formula Concept

$$\frac{\text{Total Fees Charged by Investment Management + Costs Charged by Third Parties}}{\text{Gross Asset Value}}$$

or:

$$\frac{\text{Fund Level Fees and Expenses (Rolling Four Quarters)}}{\text{Gross Asset Value (Weighted Average Four Quarters)}}$$

TGER Formula

$$\frac{MF + TF + PF + VC + VT}{GAV}$$

Input Definitions

Fees Charged by the Investment Manager

MF = Ongoing Management Fees – Fund and asset management fees charged by investment managers for their services regarding the everyday running of the vehicle and its portfolio.

TF = Transaction Based Fees – Fees charged by investment managers for their services regarding the acquisition/disposition of real estate.

PF = Performance Fees – Fees charged by investment managers after a predetermined investment performance has been attained.

Costs Charged by Third Parties

VC = Vehicle Costs – Third party costs incurred predominantly at vehicle level to maintain and frow its operations.

VT = Vehicle Related Taxes – Expenses related to the tax structure and position of the vehicle.

Ratio Denominator

GAV = Gross Asset Value – Total assets derived from the vehicle accounting standards, e.g., US GAAP, IFRS, and adjusted for specific elements to arrive at a market-relevant gross asset value in accordance with INREV Guidelines/NCREIF PREA Reporting Standards.

Appendix A2 provides the details of fees and costs within each category. See Appendix A3 for the calculation of GAV. Note the contractual investment manager compensation that represents the spread between the before & after TWR may differ from the above defined Fees Charged by the Investment Manager. The Investment Manager Agreement outlines the contractual compensation that creates the spread between before and after TWR and may vary between investment vehicles or investment structure, but the intent is the same. Therefore, the contractual fee compensation that creates the return spread must be disclosed for

TWR transparency (PR.01.1). It is also recommended to disclose the types of compensation fees included in TGER (link to reporting and disclosure guidance document).

Industry Guidance

Reporting Standards

All Vehicles (when TGER is presented)

- PR.23.1-23.4 – Required; Accompanying disclosures.

Open-End Funds

- PR.23 – Required; Annually for a 12-month rolling period.

Closed-End Funds

- PR.23 – Required; For funds launched in 2020 or after, annually for a 12-month rolling period.
- PR.23 – Recommended; Since inception TGER with inception date indicated.

Separate Accounts

- Not applicable.

Link to Background and Discussion

Section 2.04 – Total Global Expenses Ratio – Background and DISCUSSION

SECTION 1.05 – MEASURES OF DISPERSION AND RISK

Measures of Dispersion

Standard deviation

$$\sqrt{\frac{\sum_{i=1}^{n} r_i - r_c}{n-1}}$$

r_i = Return of each individual entity
r_c = Equal-weighted mean or arithmetic mean return of the entities in the group
n = Number of entities in the group

Risk Ratios

Sharpe ratio

$$\frac{\overline{r}_p - r_f}{\sigma_p}$$

$\overline{r}_p$ = Expected portfolio return
r_f = Risk-free rate
σ_p = Portfolio standard deviation

Treynor ratio — (also known as the reward to volatility ratio)

$$\frac{\overline{r}_p - \overline{r}_f}{\beta_p}$$

$\overline{r}_p$ = Average portfolio return
$\overline{f}$ = Average risk-free rate
β_p = Beta of the portfolio

Tracking Error

$$\sqrt{\frac{\sum (x^i - y^i)^2}{n-1}}$$

x = Percentage return on the portfolio in period i
y = Percentage return on the benchmark
n = Number of periods over which it is measured

Correlation (ρ)

$$\frac{\text{cov}\,(X, Y)}{\sigma_X \times \sigma_Y}$$

cov = Covariance between the two sets of returns (X and Y)
σ_X = Standard deviation for entity X for the period
σ_Y = Standard deviation for entity Y for the period

Industry Guidance

Reporting Standards

All Vehicles

- Volume I does not require or recommend reporting of measures of dispersion. Measures of dispersion will be considered for future updates to the asset management elements within Volume I.

Link to Background and Discussion

Section 2.05 – Measures of Dispersion and Risk – Background and DISCUSSION

SECTION 1.06 – LEVERAGE

Fund Level Leverage Risk Measures

Fund T1 Leverage Percentage

$$\frac{\text{Fund T1 Total Leverage (C)}}{\text{Total Gross Assets (as defined)}}$$

Operating Model

$$\frac{\text{Fund T1 Total Leverage (C)}}{\text{Total Balance Sheet Assets – Joint Venture x Partner Economic Share of Total Assets}}$$

Non-Operating Model

$$\frac{\text{Fund T1 Total Leverage (C)}}{\text{Total Balance Sheet Assets + Fund Economic Share of Total Joint Venture x Liabilities}}$$

Fund T1 Leverage Yield

$$\frac{\text{Fund's Net Investment Income Before Interest Expense}}{\text{Fund T1 Total Leverage (C)}}$$

Weighted Average Remaining Term of Fund T1 Leverage

Calculate separately for Fixed-Rate leverage and Floating-Rate leverage.

$$\frac{P_1}{P} r_1 + \frac{P_2}{P} r_2 + \frac{P_3}{P} r_3 + ..$$

Input Definitions

Fund T1 Total Leverage (C) = P = Fund T1 leverage at cost, which is the remaining principal balance
P_i = Principal balance of each debt
r_i = Remaining term of each debt (years)

As used herein Joint Venture includes investments which are other than wholly owned by the Fund including, but not limited to: joint ventures, limited partnerships, investments in C-corporations, etc.

Investment Level and Property Level Leverage Risk Measures

Debt Service Coverage Ratio (DSCR)

$$\frac{\text{Net Operating Income (NOI)}}{\text{Debt Service Payments (principal and interest)}}$$

Debt Yield

$$\frac{\text{Net Operating Income (NOI)}}{\text{Outstanding Loan Balance}}$$

Loan to Cost (LTC)

$$\frac{\text{Outstanding Loan Balance}}{\text{Property/Investment Ending cost}}$$

Loan to Value (LTV)

$$\frac{\text{Third Party Debt}}{\text{Property/Investment Value}}$$

Industry Guidance

Reporting Standards

All Vehicles

- PR.04 – Required; T1 leverage at cost because not all debt is reported at fair value.
- PR.05 – Required; Quarterly reporting of Fund T1 Leverage Percentage.
- PR.14 – Required; Quarterly reporting of the Fund T1 Leverage Yield.
- PR.15 – Recommended; Quarterly reporting of the weighted average interest rate of Fund T1 Leverage.
- PR.16 – Recommended; Quarterly reporting of the weighted average remaining term of Fixed-Rate Fund T1 Leverage. A disclosure of the total amount of T1 leverage which is fixed-rate debt must be provided when this measure is presented.
- PR.17 – Recommended; Quarterly reporting of the weighted average remaining term of Floating-Rate Fund T1 Leverage. A disclosure of the total amount of T1 leverage which is floating-rate debt must be provided when this measure is presented.

Link to Background and Discussion

Section 2.06 – Leverage – Background and DISCUSSION

SECTION 1.07 – PERFORMANCE ATTRIBUTION

Brinson-Fachler Model with Interaction Effect

Allocation Effects	**Selection Effect**	**Interaction Effect**
(Br — BR) * (PW — BW)	BW * (Pr — Br)	(PW — BW) * (Pr — Br)

Brinson-Fachler Model without Interaction Effect

Allocation Effects (includes interaction effects)	**Selection Effect**
(Br — BR) * (PW — BW)	PW * (Pr — Br)

Contribution/Absolute Attribution

Contribution Effect

(PW * Pr)

Input Definitions

BW = Benchmark sector weight
Br = Benchmark sector return
BR = Benchmark total return
PW = Portfolio sector weight
Pr = Portfolio sector return

Industry Guidance

Reporting Standards

All Vehicles

- Volume I does not require or recommend reporting of attribution.

Open-End Funds

- PR.02 – Required; Benchmark period return that matches all actual net (or gross) period returns that are being reported, and calculation methodology of benchmark return. Alternatively, disclosure of reason there is no stipulated benchmark.

Closed-End Funds

- PR.02 – Required at investor's request; Benchmark period return that matches all actual net (or gross) period returns that are being reported, and calculation methodology of benchmark return. Alternatively, disclosure of reason there is no stipulated benchmark.

Separate Accounts

- PR.02 – Recommended; Benchmark period return that matches all actual net (or gross) period returns that are being reported, and calculation methodology of benchmark return. Alternatively, disclosure of reason there is no stipulated benchmark.

Link to Background and Discussion

Section 2.07 - Performance attribution - Background and Discussion

SECTION 2 – BACKGROUND AND DISCUSSION

SECTION 2.01 – TIME WEIGHTED RETURN- BACKGROUND AND DISCUSSION

Link to Formulas

Section 1 – FORMULAS
Section 1.01 - Time-weighted return

Overview

A Time-weighted Return (TWR) is a rate of compound growth adjusted to eliminate the impact of external flows, typically expressed on annualized terms. Mathematically, it is the compound growth rate of a single dollar invested at the start of the investment period compounded by the rate of return calculated during each measurement period. TWRs, or more specifically, chain-linked Modified Deitz returns, are commonly used in the real estate investment industry to measure the performance of an investment, Fund or Account and are a type of day weighting methodology accepted under GIPS. Property level returns are also linked in the same manner but typically use alternative assumptions about the timing of external flows (e.g., the NPI assumes monthly NOI distributions and mid-quarter capital flows) rather than actual cash flow dates. By chain-linking or compounding individual period returns, the TWR formulas remove the timing effect of cash contributions and distributions from the entity's performance. TWRs measure performance over a specific period regardless of the size of the investment or timing of external cash flows. Generally, TWRs are used to compare manager performance.

All TWR formulas are built in a similar manner, with a numerator and denominator deriving a single period rate of return. The numerators generally represent some measure of the absolute performance of the entity over the measurement period (e.g., income, appreciation, etc.). The denominators represent a measure of the entity's average size over that same time period (e.g., weighted average net asset value).

A technical point worth remembering: "Time-weighting" refers to the process of how multiple periodic rates of return are linked together. Hence, the rate of return for a single period should not technically be referred to as a time-weighted rate of return. In fact, the popular Modified Dietz method, which is the basis for the single period rate of return used in real estate, is an IRR approximation for that single period. It is the chain-linking of such quarterly Modified Dietz returns, a process that results in a (multi-period) "time-weighted" rate of return.

Use of TWRs

TWRs are the preferred performance measure to use in open-end funds and are recommended for separately managed accounts (SMAs). TWRs can be helpful when one needs to compare performance to a benchmark or across multiple asset classes. Because of the wide-spread use of TWRs within multiple asset classes

(including mutual funds), it is commonly used as the primary measure of performance of investors' portfolios. Conversely, when an advisor controls the cash flows of the investment, as is the case in closed-end funds and discretionary SMAs, other return measures including IRR may provide additional insight. IRR is discussed further in a separate chapter within the PRM.

The NCREIF Indices present TWRs except in the case of NFI-CEVA where performance returns are IRR focused, aligning well with its closed-end structure.

Within the Industry, TWRs may be calculated at three "levels": Fund or Account, Investment, and Property[2]. The actual financial elements that are used in the numerators and denominators of each TWR differ by level and are described in greater detail in later sections. Like for like performance (same level) can be aggregated to reflect the return of a group (e.g., all value-add retail assets across portfolios, all portfolios managed to a core strategy) and is discussed further below.

Fund and Investment level TWRs are typically presented before and after-fees (e.g., advisory fees and incentive fees) and promote (e.g., carried interest) and include leverage, cash, and the impact of other assets and liabilities. Property level TWRs may be presented leveraged and unleveraged and are most often presented before fees. After fee performance may be computed as well, however this may be difficult when fees are charged at the fund level rather than by investment. Please see the section specific to each level further in this PRM.

Modified Dietz Method

The Modified-Dietz Method is the single period rate of return formula that is widely used throughout the financial Industry to combine into TWRs at the Fund and Investment level. When someone refers to a "time-weighted return formula" in general terms, they are most likely referring to a linking of periodic rates of return each of which use the formula below.

$$R_p = \frac{EFV - BFV - CF}{BFV + WCF}$$

R_p = Return for the measurement period
EFV = Ending fair value of the investment
BFV = Beginning fair value of the investment
CF = Net cash flows for the period (add if net distribution)
WCF = Sum of weighted cash flows for the period

Ideally, a time-weighted return involves breaking the holding period into sub-periods bounded by each subsequent cash flow, then chain-linking the sub-period TWRs. By valuing the portfolio at the instant just prior to any cash flow, the sub-period return for the time period leading up to that cash flow occurrence can be calculated. By then re-valuing the portfolio considering the effect of such a cash flow, a new beginning

[2] Investor specific reporting considerations will be addressed in a future edition of the PRM.

value is created for computing the rate of return for the next sub-period. Since there are no cash flows within these sub-periods, the sub-period TWRs are simply (ending value — beginning value)/beginning value.

Computing a true time weighted return requires the availability of timely pricing (e.g., valuation information) when each cash flow occurs. For example, in the stock market, many participants now routinely perform such ideal TWRs by using end of day stock pricing.

However, in markets where getting pricing data can be problematic, such as with real estate, approximations may be necessary. The most popular approximation for such markets is the Modified Dietz method, a method that has its origins in an earlier place and time when, even if timely prices were available, computing power was limited. It allows the placement of sub-period boundaries at dates when valuation data will be available, (e.g., quarterly.) Within these sub-periods, if a cash flow occurs, an implicit constant rate of return before and after is effectively assumed by time-weighting the cash flows in the denominator by the fraction of the sub-period duration that the cash flows affect the portfolio. While the most commonly used sub-period is quarterly, more frequent sub-periods can be utilized.

Cumulative and Compounded Returns

Since valuations are generally performed quarterly, the standard building block for computing real estate sub-period TWRs is the quarter. Building blocks less than a quarter, (e.g., daily or monthly), can also be used assuming the valuation cycle matches the building block. In the U.S., although monthly valuations for private real estate are becoming more common, the quarter remains the most commonly used period.

Returns for periods longer than a single quarter, known as cumulative returns (not annualized), can be calculated by geometrically by linking all quarterly returns within the measurement period. This geometric linking is applied uniformly to all quarterly sub-periods within the cumulative period. If the user has adopted a partial period policy that calls for including the partial periods in the calculation, then those partial periods would need to be geometrically linked with the full quarters as well. TWRs do not require equal length sub-periods to calculate cumulative returns correctly. For more details on partial period calculations, please refer to the partial period section below. The geometrically linked calculation of TWRs results in a compounded rate of return.

R_p = $[(1 + R_1) * (1+R_2) * (1+R_3)\ldots(1+R_n)] - 1$

R_p = Return for the measurement period

$R_{1\ldots n}$ = Quarterly return for period 1 through n

In the geometrically linked cumulative return formula above, each quarterly return in the measurement period has an equal weighting. The timing of the return and the amount invested for an individual period will have no impact on the multi-period return. In other words, every period counts as much as every other period, regardless of the entity's size in a TWR.

An example of an eight-quarter cumulative return is included below. Please note that arithmetic sum of returns for this period would be 20%, (2.5% * 8), however the compounding effect introduced by geometrically linking the returns results in an additional 1.8% of return for an ending value of 21.8%.

Cumulative return example (not annualized)			
		Return	(Return) + 1
Start	Quarter 1	2.5%	1.025
	Quarter 2	2.5%	1.025
	Quarter 3	2.5%	1.025
	Quarter 4	2.5%	1.025
	Quarter 5	2.5%	1.025
	Quarter 6	2.5%	1.025
	Quarter 7	2.5%	1.025
End	Quarter 8	2.5%	1.025
	Cumulative return		21.8%

[(1.025)*(1.025)*(1.025)*(1.025)*(1.025)*(1.025)*(1.025)*(1.025)]-1 = .218 = 21.8%

Annualization

In the financial Industry, investors and advisors tend to think in terms of annual rates of return. The Industry standard is to annualize all cumulative returns that contain four or more full quarters. Cumulative returns can be annualized using the following formula:

AR_p = $[(1 + R_p)^{(365/DHP)}] - 1$

AR_p = Annualized return for the measurement period

R_p = Return for the measurement period (non-annualized)

DHP = Number of days or periods in the measurement period

NCREIF PREA Reporting Standards do not require a specific annualization methodology but do require disclosure of TWR methodology in a compliant report (PR.01.4). Currently both the NCREIF NPI and NFI fund indices use 4/number of quarters to annualize cumulative returns. In day terms, this methodology translates to 90 day quarters and 360 day years. Similarly, annualizing monthly returns can use 12/Number of months in the measurement period. The NCREIF NPI and NCREIF fund indices use 4/Number of quarters. Using number of months or quarters may give a slightly different result than if total number of days is used, but the differences are usually immaterial.

Annual returns that cover more than one year (e.g., a five-year return) represent the average annual return over the cumulative period. An example of an eight-quarter cumulative annualized return using the same 2.5% quarter return that was seen in the previous example is included below.

Cumulative return example (annualized)				
			Return	(Return) + 1
Start	1/1/2006	Quarter 1	2.5%	1.025
		Quarter 2	2.5%	1.025

Cumulative return example (annualized)				
		Quarter 3	2.5%	1.025
		Quarter 4	2.5%	1.025
		Quarter 5	2.5%	1.025
		Quarter 6	2.5%	1.025
		Quarter 7	2.5%	1.025
End	12/31/2007	Quarter 8	2.5%	1.025
# Days	730			
		Annualized cumulative return		10.4%

{[(1.025)*(1.025)*(1.025)*(1.025)*(1.025)*(1.025)*(1.025)*(1.025)]^(365/730)}-1 = .104 = 10.4%

Component Returns

The reporting of TWR in accordance with Volume I requires presenting both total and component returns, with component returns classified as income and appreciation (PR.01). When component returns are presented for any full individual quarter, the sum of the income return plus the appreciation return will generally equal the total return. When component returns are geometrically linked to create cumulative compounded returns, the simple addition of the cumulative compounded income return plus the cumulative compounded appreciation return will not usually equal the cumulative compounded total return. Presenting returns with each component separately linked is acceptable and appropriate industry practice.

It is noted classification of total return into income and appreciation component returns may vary in practice due to differing accounting and performance policies. As variations in accounting practices exist, the comparability of component return performance across managers with different policies may be difficult. Care should be taken when analyzing fund and investment level component TWRs. For more details, please see the *Reporting Standards Fair Value Accounting Policy Manual*.

Treatment of Partial Periods

If an investment is made on a date other than the first day of a quarter, or sold on a date other than the last, the resulting measurement period is said to be a "partial period" because the investment does not have a full quarter's worth of activity during that period.

These partial periods can potentially create distortions in the TWR calculations. Various factors play a role in the distortion including the nature of the return (e.g., single entity calculation versus group calculation), component of the return (e.g., income versus appreciation), and time-period covered (e.g., current quarter versus annualized return).

In practice, a number of different acceptable methods are used to deal with partial periods. The method chosen should be applied consistently and properly documented in the fund's performance measurement disclosures.

The three most commonly used methods are summarized below, though other methods may also be acceptable so long as they are applied consistently and do not materially misstate the return results. For a more detailed discussion of partial period methodology including examples that support the pros and cons of each method listed below, please refer to the NCREIF Discussion Paper titled *Proposed Guidance for the Calculation of Time-Weighted Returns for Partial Periods*.

- **Method I** — Start and end dates used for TWR calculations will match the start and end dates for the entity's actual life (i.e., keep partial periods).
- **Method II** — For TWR purposes, an entity will begin on the first day of the first full quarter following acquisition and end on the last day of the last full quarter prior to disposition (i.e., drop partial periods).
- **Method III** — A hybrid of Methods I and II where the start date begins on the first day of the first full quarter following acquisition and the end date matches the actual disposition date (i.e., drop acquisition partial period but keep disposition partial period).

If partial periods are kept in the calculation, then care must be taken to ensure that the number of actual days in the measurement period is used correctly in the various calculations. For example, if the acquisition partial period is kept, then the numerator of the annualization factor should be the total number of days from the actual acquisition date (not the first day in the first full period) through the end of the measurement period. The same holds true for any disposition partial period that is kept.

In addition, if partial periods are kept in the calculation, the cash flows that are used in the denominator of the investment and fund level return calculations need to be weighted by the actual number of days that were outstanding in the partial period not the normal number of days that would be available in a full period. For example, a contribution for the first acquisition in the fund that occurs on 2/15/xx would be weighted at 100% or 44/44 days (3/31 — 2/15 = 44), not 49% or 44/90 days (3/31 — 1/1 = 90). The same holds true in the disposition period.

The chart below lists some of the pros and cons of each of the three methods above when applied to a single-entity calculation. When applied to funds, acquisition means initial fund activity and disposition means final or liquidating fund activity.

	Pros	Cons
Method I – match dates for acquisition and disposition	• No adjustments to returns data is required • All since inception cumulative annualized returns for income, appreciation and total are correctly calculated	• Partial period income returns appear different from a full quarter return • If net income is not earned ratably in the acquisition period, the annualization factor may not be able to correct for the distorted acquisition period returns

	Pros	Cons
Method II – first day of full quarter at acquisition, last day of full quarter prior to disposition	• Removes appearance of skewed quarterly income returns in the partial periods	• NOI data from partial periods is not always included in performance making SI reconciliation to financials difficult. If NOI data is included in the first full period, the annualized results may be overstated. • Creates distortion in appreciation return by artificially shortening hold-period • May lead to restatement of prior quarter returns when final quarter income and appreciation is not properly accrued in the final full quarter
Method III – hybrid; first full quarter at acquisition and match date of final disposition	• Removes appearance of skewed quarterly income returns in the partial periods • Since inception cumulative annualized appreciation returns are calculated correctly	• Inconsistent treatment of acquisition and disposition partial periods • NOI data from partial periods is not always included in performance making SI reconciliation difficult. If NOI data is included in the first full period, the annualized results may be overstated.

The chart below lists some of the pros and cons of each of the three methods above when applied to a group calculation.

	Pros	Cons
Method I – match dates for acquisition and disposition	• No adjustments to returns data is required • Annualization factor corrects any distortion caused by partial periods that occur in the beginning or end of a group's life	• Partial periods that occur mid-life still distort the group returns (income, appreciation and total) • Income returns in first/last partial period still appear different from a full period calculation • If net income is not earned ratably in the acquisition period, the annualization factor may not be able to correct for the distorted acquisition period returns
Method II – first day of full quarter at acquisition, last day of full quarter prior to disposition	• Removes appearance of skewed quarterly income returns in all acquisition partial periods • Method used by NCREIF fund indices	• NOI data from partial periods is not always included in performance making SI reconciliation difficult. If NOI data is included in the first full period, the annualized results may be overstated. • Creates distortion in appreciation return by artificially shortening hold-period • May lead to restatement of prior quarter returns when final quarter income and appreciation is not properly accrued in the final full quarter

	Pros	Cons
Method III – hybrid; first full quarter at acquisition and match date of final disposition	• Removes appearance of skewed quarterly income returns in all acquisition partial periods • Since inception cumulative annualized appreciation returns are more correct than Method II • Method used by NCREIF NPI	• Inconsistent treatment of acquisition and disposition partial periods • NOI data from partial periods is not always included in performance making SI reconciliation difficult. If NOI data is included in the first full period, the annualized results may be overstated.

The treatment of partial periods by large indices may also be relevant information for users as they decide which method to apply. However, please note that the index policy may not necessarily be the best policy for the user because the sheer number of non-partial periods included in the index in any given quarter will mitigate the inclusion of a few partial periods and should make any potential distortion immaterial. Furthermore, the indices have specific inclusion requirements that may otherwise prohibit an entity from entering the index in its acquisition period further reducing the risk of distortion due to partial periods. In other words, this is one piece of information to consider when determining partial period methodology but should not be the sole determinant.

Grouping Entities

In this PRM the term "grouping" is used to describe the process of aggregating/disaggregating two or more entities (i.e., funds, investments, or properties) to evaluate performance using the time-weighted return. In this sense, the grouping guidance below can be applied very broadly to any collection of entities. Sometimes referred to as composites, grouping of entities can be done at any level (fund, investment, property) and allows the user to better understand the performance of a specific aggregation of entities outside a single portfolio return. As an example, client performance reporting often includes grouping of entities and the disaggregation of portfolios by property type and geographic region.

The mechanics for grouping are straight-forward. First, determine which entities will be included in the group. The specific, qualitative attributes utilized to determine which individual portfolios, investments, or properties are appropriate for the group being created must be pre-determined and consistent. These common attributes can be based on many different qualitative aspects including investment strategy, geography, sector, etc. Once the appropriate group of entities has been determined, the user must identify a consistent methodology to calculate returns before compiling the quarterly return numerators and denominators for all entities.

There are two main methods for aggregating entities: aggregation method and weighting method.

The aggregation method is generated by grouping together the numerators and denominators into a single portfolio before calculating performance of the entire group. The NPI Index is calculated using this methodology after considerations are taken for inclusion of individual properties as well as the treatment of partial periods.

The weighting method is built by taking the return of each constituent entity that meets the inclusion criteria, determining a weighting factor, and then aggregating the weighted returns. This can be done on either an equal-weighted basis or asset-weighted basis. Weighted returns, more closely aligned with the aggregation method, can be built utilizing a variety of valuation metrics including, but not limited to, beginning/average/ending NAV, beginning/average/ending GAV, or day-weighted equity. The equal weighted method is not typically used for reporting but can be used to remove the outsized impact of larger properties or funds.

An example of a group return containing five entities is listed below.

Group return example			
	Numerator	Denominator	Return
Property A	25	500	5.0%
Property B	100	10,500	1.0%
Property C	500	14,000	3.6%
Property D	100	5,000	2.0%
Property E	275	10,000	2.8%
Group	1,000	40,000	2.5%

Alternatively, an equal-weighted return (a return as if each entity is treated equally, regardless of size) is calculated by taking a simple average of each entity's return. In the example above, the equal-weighted return is 2.88%.

General Discussion

Considerations for which weighting factors and returns are most relevant must be made when grouping entities for return purposes. In the aggregation method, the larger an entity, the more impact it will have on the group return. Please note that the grouping described in the example above uses the entity's denominator to determine the weight that will be assigned to each entity in the group and is the most common method for grouping entities. In real estate, the denominator is traditionally a weighted-average of the entity's net asset value over the quarter and is often referred to as value-weighted or capitalization-weighted.

When building a group return, there are three main steps: 1) considerations for inclusion in the group, 2) treatment of the impact of partial periods, and 3) calculation methodology. The choices made at each of these levels should be documented and included in disclosure provided alongside the analysis. When grouping entities, returns are traditionally built on a period-by-period basis, utilizing the numerators and denominators for a single period.

Group returns for cumulative periods should be calculated by first calculating the group return for each individual quarter within the cumulative period and then geometrically linking those group quarterly returns using the same methodology described in the "Cumulative Returns" section above.

Fund Level TWR

Background

A fund level TWR is the aggregation of all investments made by the entity and the amounts earned or incurred which relate to the entity but are not specifically attributable to a specific investment. Fund level TWRs are very broad in nature and capture all activity, which includes but is not limited to, revenues and expenses applicable to the fund, taken as a whole, such as audit and appraisal fees, interest income, and portfolio borrowings. In essence, this return measures the performance of the advisor in terms of how well the management team performed its specified strategy. Fund level TWRs are usually presented on a levered basis as this coincides with the experience of a typical investor.

Before-Fee vs. After-Fee Fund Level TWR

Generally speaking, the before-fee is also known as the gross return and after-fee is also known as the net return.

For before-fee and after-fee return purposes, GIPS® only considers advisory fees, incentive fees, and carried interest (also known as "promote") when distinguishing between the two calculations and reporting to current investors and the NCREIF fund indices have followed suit. As such, fees generally do not include property management fees, construction management fees, acquisition fees, disposition fees, or any other fees or expenses that are paid to the investment advisor. If, however, these types of fees are deemed to be over-market and paid in lieu of normal advisory or incentive fees, it is acceptable to consider them to be additional advisory fees for return calculation purposes. The NCREIF position paper *Treatment of Advisory Fees* provides further clarification on acquisition and disposition transaction fees noting that these fees should not be included as advisory fees unless the fee is paid to both the advisor and a third-party (at presumed market rates). In other words, if the transaction fee is only paid to the advisor (at presumed market rates), then the portion of that fee that is considered to be at market should not be considered an advisory fee. It is up the advisor to make a determination based on the unique facts and circumstances of each transaction. NCREIF fund indices generally present TWRs gross of fees while net of fee TWRs may be presented for informational purposes and as a proxy for the average fees charged.

The formulas below define the calculation of quarterly fund level returns on a before and after-fee basis. If the advisor determines that transaction fees are indeed advisory fees, they would be included in the "AF" term in the formulas below. Volume I PR.01.1 states that fees are deducted from before-fee (gross) returns to arrive at the after-fee (net) income/appreciation. However, in practice, the calculation can start with the after-fee (net) income/appreciation and adds back fees to arrive at the before-fee (gross) income/appreciation as indicated in the calculations below.

Before-fee fund level TWR

Numerator: Net investment income (before-fee)

The net investment income numerator is the net investment income (after interest expense, advisory fees, and expensed incentive fees) that was reported by the fund during the period. Please note that net investment income rather than net operating income is used for fund and investment level returns as net investment income is more complete in scope as it contains interest expense, advisory fees, and expensed incentive fees. The net investment income should be calculated on the accrual basis of accounting in accordance with the accounting standards outlined in the *Reporting Standards Fair Value Accounting Policy Manual*. Net investment income is reported after advisory and expensed incentive fees, so those items need to be added back to the numerator to calculate a before-fee return.

Numerator: Appreciation (real estate and debt) (before-fee)

The appreciation numerator measures the change (increase or decrease) in the fund's fair value. Real estate and debt should be reported in accordance with the accounting standards outlined in the *Reporting Standards Fair Value Accounting Policy Manual* and valuation principles outlined in the *Reporting Standards Valuation Manual*. Appreciation included in the numerator should include both realized and unrealized real estate and debt appreciation (if applicable).

Generally, incentive fees and promotes (carried interest) that are earned based on changes in an investment's fair value are recorded as unrealized appreciation and impact the appreciation return, and incentive fees that result from meeting and exceeding operating result goals are expensed and impact the net investment income return.

Denominator (before-fee)

The denominator for the fund level TWR is the fund's weighted average equity over the quarter. Weighted average equity is calculated by adjusting the beginning of quarter net asset value for equity transactions (contributions and distributions) that occur during the quarter.

Each contribution or distribution that occurs during the period needs to be time weighted by multiplying it by a time weighting factor based on the date of the transaction. For return purposes: contributions include original contributions as well as reinvestments of capital; and distributions include both operating and return of capital distributions. The initial contribution is not weighted (or it can be thought of as weighted at 100%). The denominator of the time weighting factor is the actual number of days that the fund was active during the period. Usually, the denominator will equal the total number of days in the quarter, however if the transaction is either the very first or last transaction for the fund, then the denominator is adjusted to match the number of days the fund was active for the period if those partial periods are included. Please refer to the section on partial periods for more methodology detail. The numerator of the time weighting factor is the total number of days remaining in the period after the equity transaction occurs.

Contributions: Contributions in the current quarter are weighted based upon the number of days the contribution was in the fund during the quarter commencing with the day the contribution was received.

Example: Beginning Net Asset Value for 2Q 20XX $10,000,000

Contribution of $5,000,000 on 5/30/20XX

Calculation: 5,000,000*(32/91) = $1,758,241.76
Beginning NAV + Weighted Contribution = Denominator
$10,000,000 + $1,758,241.76 = $11,758,241.76

Distributions: Distributions in the current quarter are weighted based upon the number of days the distribution/withdrawal was out of the fund during the quarter commencing with the day following the date distribution/withdrawal was paid.

Example: Beginning Net Asset Value for 2Q 20XX $10,000,000
Distribution of $5,000,000 on 5/30/20XX

Calculation: 5,000,000*(31/91) = $1,703,296.70
Beginning NAV - Weighted Distribution = Denominator
$10,000,000 - $1,703,296.70 = $8,296,703.30

Note: Another factor that impacts weighted average equity is cash redemptions/withdrawals by investors, which are not cash distributions but rather an investor's removal of all or part of its equity from the fund. Such equity transactions are weighted in a manner identical to the weighting of cash distributions described above.

After-Fee Fund Level TWR

Numerator: Net Investment Income (after-fee)

The after-fee fund level net investment income numerator is the net investment income that was reported by the fund during the period. In some cases, an investment manager bills advisory fees separately and outside of the fund.

Numerator: Appreciation (after-fee)

The after-fee fund level appreciation numerator subtracts any change in capitalized incentive fee that was accrued during the quarter. Generally, incentive fees that are earned based on changes in an investment's fair value are recorded as unrealized appreciation and impact the appreciation return, and fees that result from meeting and exceeding operating result goals are expensed and impact the net investment income return. In some cases, an investment manager bills incentive fees separately and outside of the fund.

Denominator (after-fee)

Before-fee and after-fee fund level TWR denominators are the same because there is only one weighted average equity for the period. The contributions and distributions used in the denominators are most commonly after-fee and are not adjusted to be before-fee even when calculating a before-fee return.

Investment Level TWR

Background

Investment level TWRs reflect the performance of a single investment or group of investments under common ownership. Investment level TWRs differ from property level in that the full scope of the investment, including ownership level activity (use of working capital, owner expenses, etc.), is included in the calculation. The investment level TWR differs from the fund level TWR in that the fund level TWR represents the aggregation of all investments made by the entity and the amounts earned or incurred which relate to the entity but are not specifically attributable to a particular investment or group of investments such as measures of fund load (see TGER below). The investment level is often a subset of the fund level return. As such, it reflects the fund's ownership position within the investment.

Volume I is fund level standards and does not address investment level TWR. Investment level TWRs are more commonly used for multi-investment SMAs where TWR reporting is utilized for fund level reporting. For single-investment Funds which report TWR, the investment level TWR and the fund level TWR are the same.

Before-fee vs. after-fee investment level TWR

Investment level TWRs are typically reported on a before-fee basis. If after-fee investment level TWRs are reported, the method of allocation of any expenses, fees, or promote (carried interest) from the fund level to the investment level should be disclosed. It should be noted that allocation of such expenses, fees, and promote (carried interest) may be very complex and in some cases not feasible due to investment structuring.

The formulas below define the calculation of quarterly investment level return on a before and after-fee basis. Note that the formulas for investment level returns are the same formulas as the fund level returns. However, activity attributable to the investment or group of investments is used when calculating the investment level TWR.

Before-Fee Investment Level TWR

Numerator: Net investment income (before-fee)

The net investment income numerator is the net investment income (after interest expense) that was reported by or attributed to, the investment or group of investments during the period. The net investment income should be calculated on the accrual basis of accounting in accordance with the accounting standards outlined in the *Reporting Standards Fair Value Accounting Policy Manual*. (Note: If net investment income is reported after advisory and expensed incentive fees specific to the investment then those items need to be added back to the numerator to calculate a before-fee return.)

Numerator: Appreciation (real estate and debt) (before-fee)

Appreciation measures the change (increase or decrease) in investment fair value. The appreciation numerator is the appreciation reported by the investment or group of investments during the period and includes both unrealized and realized appreciation. Real estate and debt should be reported in accordance

with the accounting standards outlined in the *Reporting Standards Fair Value Accounting Policy Manual* and valuations should be completed on a quarterly basis in accordance with the valuation standards outlined in the *Reporting Standards Valuation Manual*.

Denominator (before-fee)

The denominator for the investment level TWR is the weighted average equity of the investment or group of investments over the quarter. Weighted average equity is calculated by adjusting the beginning of quarter net asset value for equity transactions (contributions and distributions) that occur during the quarter.

Each contribution (irrespective of source) or distribution that occurs during the period needs to be time weighted by multiplying it by a time weighting factor based on the date of the transaction. For return purposes, contributions include original contributions as well as reinvestments of capital and distributions include both operating and return of capital distributions. The initial contribution for the investment is not weighted (or it can be thought of as weighted at 100%). The denominator is the actual number of days that the investment was active during the period. Usually, the denominator will equal the total number of days in the quarter, however if the transaction is either the very first or last transaction for the investment, then the denominator is adjusted to match the number of days the investment was active for the period. The numerator is the total number of days remaining in the period after the equity transaction occurs.

Contributions: Contributions in the current quarter are weighted based upon the number of days the contribution was in the investment or group of investments during the quarter commencing with the day the contribution was received.

Example: Beginning Net Asset Value for 2Q 20XX $10,000,000
Contribution of $5,000,000 on 5/30/20XX

Calculation: 5,000,000*(32/91) = $1,758,241.76
Beginning NAV + Weighted Contribution = Denominator
$10,000,000 + $1,758,241.76 = $11,758,241.76

Distributions: Distributions in the current quarter are weighted based upon the number of days the distribution/withdrawal was out of the investment or group of investments during the quarter commencing with the day following the date distribution/withdrawal was paid.

Example: Beginning Net Asset Value for 2Q 20XX $10,000,000
Distribution of $5,000,000 on 5/30/20XX

Calculation: 5,000,000*(31/91) = $1,703,296.70
Beginning NAV - Weighted Distribution = Denominator
$10,000,000 - $1,703,296.70 = $8,296,703.30

After-Fee Investment Level TWR

As noted above, investment level TWRs are typically reported on a before-fee basis. If after-fee TWRs are reported, the method of allocation of any expenses, fees or promote (carried interest) from the fund level to

the investment level should be disclosed. It should be noted that allocation of such expenses, fees and promote (carried interest) may be very complex and in some cases not feasible due to investment structuring.

Numerator: Net investment income (after-fee)

The after- fee investment level net investment income numerator is the net investment income (after interest expense, advisory fees, and expensed incentive fees) that was reported by or attributed to the investment or group of investments during the period.

Numerator: Appreciation (after-fee)

The after-fee investment level appreciation numerator subtracts any change in capitalized incentive fee and promote (carried interest) that was accrued during the period. Generally, incentive fees that are earned based on changes in an investment's fair value are recorded as unrealized appreciation and impact the appreciation return, and fees that result from meeting and exceeding operating result goals are expensed and impact the net investment income return.

Denominator (after-fee)

Before-fee and after-fee investment level TWR denominators are the same because there is only one weighted average equity for the period. Traditionally, the denominator is based on net asset value as of the most recent period end. The contributions and distributions used in the denominators are most commonly after-fee and are not adjusted to be before-fee even when calculating a before-fee return.

Property Level TWRs

Background

Property level TWRs reflect the performance of an operating property or group of properties (portfolio). The property level relates strictly to property operations before structuring, and fund fees and costs including advisory fees, use of working capital, and owner income and expenses. As such, property level TWRs do not represent investors' earnings from those properties, even in single property funds, but rather the earnings (in the form of appreciation and operating income) that are generated by the property. Accordingly, property level returns are reported on a leveraged or unleveraged basis and not before and after-fees like fund level and investment level TWRs are reported. It is noted that the property level formulas are a slight, further approximation of Modified Dietz methodology wherein, rather than time-tagging the cash flows to the nearest day, contributions (for capital improvements) are assumed to always be made mid-quarter and distributions (of NOI) are assumed to be made monthly.

The NPI is a property level TWR index.

Leveraged vs. unleveraged property level TWR

Property level TWRs can be calculated on a leveraged or unleveraged basis. The NPI is unleveraged but queries can be made to generate a leveraged property level TWR.

Unleveraged property level TWR

For comparative purposes, property level TWRs are usually reported on an unleveraged basis because not all properties are leveraged and those that are, are leveraged at varying levels.

Numerator: Net operating income (unleveraged)

The net operating income (NOI) numerator is the net operating income (before interest expenses) that was reported by the property during the period. The NOI should be calculated on the accrual basis of accounting in accordance with the property level accounting standards explained in the Reporting Standards Fair Value Accounting Policy Manual.

Numerator: Appreciation (unleveraged)

The appreciation numerator measures the change in property fair value (increase or decrease) and includes unrealized as well as realized appreciation.

Denominator (unleveraged)

The denominator of the unleveraged property return is an estimate of the average gross capital invested in the property over the quarter. This is calculated by adjusting the beginning real estate value of the property for real estate related items that would partially pay back, or add to, that initial investment.

Capital improvements represent an addition to the capital invested in the property and so it is appropriate that they be added to the beginning fair value in the denominator. Since an average investment over the quarter is being calculated, the capital improvements need to be weighted to reflect the actual amount of time that they were 'invested' during the period. The most precise way to do this would be to time weight each individual capital expenditure based on the number of days that it was in service during the quarter. This could be impractical however, so it can be assumed that all capital expenditures were added at mid-period and, hence, weighted at 1/2.

The same logic applies for partial sales. Partial sales refer to the disposition of less than 100% of the property. For example, an out lot for a retail property or a single building in an industrial complex can be sold piecemeal, before the entire property is disposed. Partial sales represent a mid-period, partial repayment of the gross investment capital deployed at the beginning of the quarter. Rather than try to account for the exact day of any such partial sale(s), all partial sales may be assumed to occur at mid period and are therefore subtracted from the denominator with a weighting of 1/2.

Net operating income is subtracted from the denominator based on the assumption that the (gross) capital employed should be reduced by any withdrawals of income. The 1/3 weighting is assigned because it is assumed that income is distributed evenly at the end of each month. The math is as follows:

- 1/3 of the income is distributed at the end of Month 1 and is outstanding for 2/3 of the quarter.
- 1/3 of the income is distributed at the end of Month 2 and is outstanding for 1/3 of the quarter.
- 1/3 of the income is distributed at the end of Month 3 and is outstanding for 0/3 of the quarter.

- (1/3 * 2/3) + (1/3 * 1/3) + (1/3 * 0/3) = 1/3.

Leveraged property level TWR

The leveraged property level TWR includes the return for both debt and equity financing sources.

All of the leveraged formulas listed above begin with the unleveraged formulas and layer in data elements to account for the debt.

Numerator: Net operating income (leveraged)

The net operating income return numerator begins with NOI and subtracts debt service interest expense.

Numerator: Appreciation (leveraged)

The leveraged appreciation formula begins with the real estate appreciation calculation and adds a debt appreciation calculation to arrive at total appreciation (real estate + debt).

Denominator (leveraged)

The denominator for the leveraged property level TWRs is the property's weighted average equity over the quarter. Since property level returns focus on property operations and ignore the use of working capital, the measure of property value is defined as average real estate value less average debt value adjusted for cash flow items that affect the real estate and debt.

For the debt items, new debt loan proceeds and additional principal debt payments (i.e., balloon payments, debt pay-offs and other non-scheduled debt payments) are assumed to occur mid-period following the same logic employed for capital expenditures and partial sales, so they are weighted at 1/2. New loan proceeds are subtracted because they result in an increase to the beginning debt value and debt payments are added because they result in a decrease to the beginning balance. Another way of looking at it is that new loan proceeds result in a cash inflow to the property which is then distributed and therefore a reduction of equity. Debt payments are funded by contributions and therefore result in an increase of equity.

Regularly scheduled principal payments are added back at 1/3 based on the assumption that the principal payments are made evenly at the beginning of each month and the assumed contribution is received at the end of each month. The math is the same as the 1/3 used for the NOI deduction.

- 1/3 of the principal is paid at the beginning of Month 1 and is outstanding for 2/3 of the quarter.
- 1/3 of the principal is paid at the beginning of Month 2 and is outstanding for 1/3 of the quarter.
- 1/3 of the principal is paid at the end of Month 3 and is outstanding for 0/3 of the quarter.
- (1/3 * 2/3) + (1/3 * 1/3) + (1/3 * 0/3) = 1/3.

Alternative Component TWR Calculations

Background

In this section, three different types of component calculations which are meant to be alternatives to the traditional income and appreciation splits that are commonly used in our Industry, are described. They are:

- Disaggregated income return
- Distribution and price change return
- Cash flow and price change return

One of the criticisms of the traditional accrual-based income TWR is that it does not provide enough information about the cash that is actually generated, so these metrics attempt to provide that missing detail. All three of these alternatives are similar in that they provide the user with a sense of how the cash flow and/or distributions of the investment are impacting total returns.

Please note that all metrics described below are expected to be used in conjunction with the traditional TWRs as supplemental information, and not meant to be a replacement for those measures.

Note that these alternative component TWRs are not included in Volume I and are not captured within the NCREIF fund or property indices.

Disaggregated Income Returns

General

Distributed and retained income returns refer to the division of fund level time-weighted income returns into two separate components. The dividend policy of the fund should be considered when calculating and interpreting the results of the return metrics below as each can be materially impacted. Please note that the aggregate dollar amount of distributed income plus retained income will equal the total income TWR at the fund level.

Distributed income return

Distributed income is defined as the amount of investment income derived from operations that is 1) actually distributed to investors or 2) credited to investors in the case of fund dividend or income reinvestment programs that are elected by the investor. (Mandatory reinvestment programs or automatic cash retention programs are not considered elective by the investor). Distributed income does not include the return of capital or principal, the distribution of realized gains from asset sales (capital gains) nor proceeds from financing activities. The objective is to present the actual cash distributions that are derived from customary and ongoing investment management operations without the distortions related to disposition and refinancing activities.

The distributed income formula is defined below:

$$\frac{\text{Distributed Income}}{\text{Weighted Average Equity}}$$

Weighted average equity is defined in the Time-Weighted Return Overview above on pages 34-35 and 37-38.

Retained income return

Retained income portion of the income return is considered materially different (in economic terms) from the distributed income portion. Retained income simply refers to the income that is earned by the entity that is not distributed. Retained income can be used in various strategic ways to manage the real estate portfolio, including but not limited to, debt repayment, acquisition of assets, and capital expenditures on existing assets.

The retained income formula is defined below:

$$\frac{\text{Retained Income}}{\text{Weighted Average Equity}}$$

Weighted average equity is defined in the Time-Weighted Return Overview above on pages 34-35 and 37-38.

Distribution and Price Change Returns – Fund Level/Investment Level/Investor Level

General

TWR indices that are used in most asset classes outside of institutional private real estate break the total time weighted return into two components; 1) dividends distributed to the investor (i.e., Distribution Return) and 2) change in market price at which the investor can buy and sell the security (i.e., Price Change Return). The sum of the Distribution Return and the Price Change Return will equal the Total Return. This method of segmenting the total return is useful in these asset classes as it provides information on the return from passive investing (i.e., dividends) versus the active investor decision on when to buy/sell the security (i.e., price change). Some of the most well-known market indices, including the S&P 500 and Dow Jones Industrial Indices actually ignore the dividend component all together and focus solely on the market price change. Other indices, including the FTSE-NAREIT indices publish total returns with both dividend yield and price change components.

The component returns used in our Industry have always been slightly different from the concepts listed above. Instead of a Distribution Return, we calculate an income return which is based on accrual basis net income earned, not cash that is actually distributed. In addition, our appreciation return is based on value change net of capital expenditures, rather than the pure market price change concept that is found in the Price Change Return.

The income and appreciation definitions that we have traditionally used serve us well and make sense conceptually when applied to a property level calculation. The split gives the user important information on the component of the return where the owner/adviser has less control (appreciation) versus the component

which can be more actively managed (income). For investment level returns however, the income and appreciation components may be less theoretically supported and there are some that would argue that the Distribution and Price Change Return components that are used prevalently in other asset classes may be more appropriate or at the very least can provide useful supplemental information.

Distribution return – Investment/Fund Level

The Distribution Return shows the amount of actual cash that is distributed to investors as a portion of weighted average equity for any given quarter. The return is meant to provide investors with a true cash basis performance measure which supplements what is currently lacking in the existing income and total return measures. This return is thought to be more comparable to the income return and/or divided yield that is reported in other asset classes than the existing income return is.

The distribution formula is as follows:

$$\frac{\text{LP Distributions of Net of Fees}}{\text{LP Weighted Average Equity}}$$

The distribution net of fees in the formula above is defined as a distribution to the limited partners that is pro-rata to the whole class of investors (excludes redemptions). This includes any distributions that are reinvested. Distributions should include the limited partner level distributions and ownership share only. Fees that are actually paid in the current period should be deducted from distributions whether those fees are withheld from the actual distributions or paid via an investor contribution.

Weighted average equity is defined in the Time-Weighted Return Overview above on pages 34-35 and 37-38.

Distribution return-investor level

The Distribution Return can be calculated before or after the impact of withholding taxes that must be paid by the investor. When reporting the Distribution Return managers should consider several points to determine how to treat withholding taxes, (i) the treatment of withholding taxes for any benchmark included in the report, (ii) investor preference in reporting or stipulated in the investment documents, and (iii) any regulatory requirements governing reporting. Regardless of how the withholding taxes are treated in the calculation, the investment manager should disclose the treatment of withholding taxes in the metrics presented. Note that for marketing purposes the GIPS® standards do not require managers to include the impact of withholding taxes on foreign investors investing in a fund that is in the same domicile as the investment manager.

Price change return –Fund Level

The Price Change Return is meant to measure the change in NAV that is not attributable to investor equity transactions (contributions, distributions, or redemptions) as a portion of weighted average equity for any given quarter. The formula is as follows:

The price change return formula is as follows:

$$\frac{\text{LP NAV}^1 \text{ ex distribution} - \text{LP NAV}^0 \text{ ex previous quarter distribution} + \text{LP redemptions} - \text{LP Contributions}}{\text{LP Weighted Average Equity}}$$

The LP NAV (Net Asset Value) in the formula above is defined as all LP assets less all liabilities reflected on a market value basis. It is assumed that these amounts should be taken directly from the fund's audited financial statements which are reported on a fair market value basis of accounting in accordance with the Volume I.

Redemptions are defined as a distribution that is not pro-rata to the whole class of investors as opposed to operating distributions. Weighted average equity is defined in the Time-Weighted Return Overview above on pages 34-35 and 37-38.

Cash Flow and Price Change Return – Property Level

Cash flow return

The Cash Flow Return shows the amount of cash from a property that is assumed to be distributed to investors as a portion of weighted average equity for any given quarter. Cash is "assumed" to be distributed because at the property level property level cash flow (net operating income less capital improvements) is used as a surrogate for actual distributions since actual distributions are not tracked as part of the property level TWR formula. This return is meant to provide investors with an estimate of cash basis performance which supplements what is currently lacking in the existing property level income and total return measures. The cash flow return is comparable to the dividend yield that is reported in other asset classes.

To calculate the cash flow return, the user needs to only make a very simple change to the existing property level income return formula. Current quarter capital improvements should be subtracted from the income return numerator instead of the appreciation return numerator, resulting in a cash flow return (and conversely the appreciation return will become a price change return). The unleveraged formula is as follows:

$$\frac{\text{NOI}}{FV_{t-1} + (1/2)(CI - PSP) - (1/3)(NOI)}$$

NOI = Net operating income (before interest expense)
FV_{t-1} = Fair value of property at beginning of period
CI = Capital improvements
PSP = Net sales proceeds for partial sales

Price Change Return – (Property Level)

The Price Change Return is meant to measure the change in NAV that is not attributable to investor equity transactions (contributions, distributions, or redemptions) as a portion of weighted average equity for any given quarter. The formula is as follows:

$$(FV_t - FV_{t-1}) + PSP$$

$$FV_{t-1} + (1/2)(CI - PSP) - (1/3)(NOI)$$

NOI = Net operating income (before interest expense)

FVt = Fair value of property at end of period

FV_{t-1} = Fair value of property at beginning of period

CI = Capital improvements

PSP = Net sales proceeds for partial sales

For more information on the Cash Flow and Price change returns, please refer to the academic articles that were authored by Young, Geltner, McIntosh, and Poutasse in 1995 and 1996.[3]

[3] M. Young, D. Geltner, W. McIntosh, and D. Poutasse "Defining Commercial Property Income and Appreciation Returns for Comparability to Stock Marked-Based Measures" Real Estate Finance Vol. 12, No. 2, Summer 1995, pp. 19-30

SECTION 2.02 – INTERNAL RATE OF RETURN – BACKGROUND AND DISCUSSION

Link to Formulas

Overview

The Internal Rate of Return ("IRR") is perhaps the most widely accepted performance measure relied on for strategic decision making for closed-end funds, whether it is being reported for the fund's portfolio or for the investors, (in either case over a relevant holding period(s)).

The internal rate of return (IRR) is the annualized implied discount rate that equates the present value of entity cash inflows to the sum of the present value of all entity cash outflows plus the present value of unrealized assets still held in the portfolio. Said differently, the rate of return that equates the present value of contributions to the present value of realized and unrealized distributions. IRRs are commonly used in the investment Industry to measure the performance of the entity (contrasted with TWRs which are used to measure performance of the investment manager).

The IRR is:

- A type of "money-weighted" return - an IRR "follows the money" meaning the timing of the entity's cash flows do impact the IRR formula unlike with a TWR.
- The rate of return that results in a net present value of zero.

This method of return presentation is traditionally utilized to represent performance when the manager controls the timing of cash flows. In this structure, the investor cannot unilaterally exit the fund such as in a closed-end fund with non-transferable shares or units.

Solution by Financial Calculator

General

An IRR is generated utilizing a "guess and check" method. Numerical iterations can easily become cumbersome and inefficient. Therefore, using a financial calculator can simplify this process. Microsoft Excel contains two functions that can be used for this calculation: the IRR function ("=IRR") and the XIRR function ("=XIRR"). Both functions produce an IRR result, however they use slightly different calculation methodologies and assumptions, so the user needs to determine which function to use to best meet its needs. Below is a comparison of these functions:

Excel IRR function

- User inputs a series of cash flows which are assumed to occur at equal intervals (i.e., quarterly or annual).
- If a period's cash flow is zero, you must enter a zero, as a blank will result in a wrong answer.
- Does not annualize the result.
- The result of the "=IRR" calculation will be a rate "per period" regardless of whether these periods are days, months or years. If the holding period is greater than one year, then the result should be annualized as follows:
    - If quarterly cash flow: (1+IRR)^4-1
    - If monthly cash flow: (1+IRR)^12-1
    - If daily cash flow: (1+IRR)^365-1

Excel XIRR function

- User inputs multiple cash flows along with the date that each cash flow occurs.
- The periodicity of the cash flows is daily (no need to have a place holder for each day).
- Annualizes result.
- No user adjustment needed if the holding period is greater than one year. If the holding period is less than one year, then the result must be de-annualized using the formula: (1 + Rate%)^(# days/365) - 1

In certain cases, the IRR may not be able to be mathematically calculated which results in an error message displayed as "#NUM!" or "#DIV/0" by Microsoft Excel. If this occurs, the result should be shown as "n/a" and a footnote added to explain the invalid result. This is due to there being two mathematically relevant results. Often this happens when the calculated IRR is negative and changing the 'guess' within the formula to a negative value will allow for a numerical result.

The cash flows used in the IRR calculation will vary depending on the level of return that one is calculating but should be aggregated quarterly at a minimum.

After-Fee IRR – General

All IRRs mentioned below can be calculated either before or after-fees by appropriately incorporating the applicable fee items during the actual period in which the fees occur. A word of caution concerning the reporting of after-fee IRRs outside of the fund level: as fee structures become increasingly complex, a methodology for apportioning the fees to individual investments in a multi-investment fund needs to be established and documented when after-fee IRRs are reported. Although mathematically an after-fee IRR can be calculated at a property level, they generally are not because property level information is calculated at 100% ownership of an asset (and as such will not include items of structuring including but not limited to joint venture interests).

When calculating an after-fee IRR, the most precise way to incorporate fees is to use the actual fee payment date (however if advisory fees are paid on a regular basis (i.e., quarterly), using the date that the fee is accrued is also acceptable if it does not result in a material difference in the IRR calculation). The cash payment date should always be used for incentive fees as they are generally material. The method used to

account for fees (cash or accrual) should be disclosed. The GIPS® standards specifically discourage the practice of simply subtracting the cumulative fees paid from the ending residual value as this treatment delays recognition of the management fees and artificially increase the rate of return.[4]

Fund Level IRR

Background

IRRs are generally regarded as a good measure of fund performance when the investment manager has control over the cash flows (i.e., the investor cannot unilaterally exit the fund), since the timing and amount of those flows impact the IRR calculation. In the real estate Industry this is most typically seen in closed-end funds and discretionary SMAs. Accordingly, Volume I requires the reporting of IRR for closed-end funds and recommends reporting of IRR for SMAs (which can be discretionary or non-discretionary) (PR.06). The NFI-CEVA product presents IRR information. IRRs are not presented or calculated for the other NCREIF fund indices or the NPI. Fund level IRRs are used within marketing materials and are calculated using contributions and distributions from investors (including the General Partner in some cases).

Gross and Net Fund Level IRR

Even though investors often request both gross and net fund level IRRs, there are often differences in how firms are reporting these two metrics. As noted in the *Reporting Standards: Gross and Net IRR: Adding transparency and comparability to closed-end fund performance an investor specific reporting*[5], reporting can be completed at various "levels" and therefore could be utilized for distinct reporting purposes.

A summary of the levels (i.e., hierarchy) is presented below.

Fund Level Reporting Hierarchy

Level 1: Gross IRR before investment management fees and fund costs. Level 1 should be presented net of transaction related costs (other than transaction costs deemed to be transaction fees) and deal level expenses.

- The level 1 IRR can be calculated using two methods:
    - Level 1a – IRR reflects cash flows between a fund and its investments. As such the IRR start date will include any subscription lines drawn.
    - Level 1b – IRR reflects cash flows between investors and the fund.

Level 2: Fund Gross IRR after deduction for fund costs but before deduction of recurring, transactional and performance-based investment manager fees and promotes (carried interest).

[4] CFA Institute. (2006) *Global Investment Performance Standards Handbook (second Edition).*
[5] NCREIF PREA Reporting Standards: August 23, 2019

Level 3: Level 2 less ongoing and transactional investment management fees[6].

Level 4: Level 3 less performance-based investment management fees and promotes (carried interest). This level represents the return of the LPs not the LPs and the GPs and therefore should exclude the GP[7]. Level 4 is the fund level Net IRR.

Investor Specific Reporting Hierarchy

Level 5: Individual Limited Partner specific reporting which captures the experience of a single investor, including all investor specific timing, fees, and costs. (Requirement)

Relationship to Total Global Expense Ratio (TGER)

Irrespective of whether Levels 1a or 1b are utilized as a measure of IRR, Levels 2 through 5 consider the same elements of fees and costs which are considered for calculating the Total Global Expense Ratio (TGER)[8]. Therefore, the fees and costs included in TGER were mapped to the hierarchy. The associated definitions for terms included in each TGER category can be found in the Global Definitions Database.

TGER Fee Categories compared to Gross and Net IRR Levels

TGER Category	TGER Inclusion	Mapping to Gross and Net IRR paper
Property related fees	Excluded	Deducted in Level 1
Property related costs	Excluded	Deducted in Level 1
Vehicle related costs	Included	Deducted in Level 2
Ongoing Management fees	Included	Deducted in Level 3
Transaction-based management fees	Included	Deducted in Level 3
Performance fees[9]	Included	Deducted in Level 4

Please refer to the TGER discussion below.

[6] Determination of whether a transaction related charge is a transaction cost (included in level 1) or a transaction fee (included in level 3) should be treated consistently with the framework provided in the Total Global Expense Ratio (TGER).

[7] Note that in cases where the General Partner invests all or a portion of its interest in the fund pari passu to the limited partners, that portion which is pari passu is included in the limited partner amount. By deducting the non-pari passu GP interests between level 3 and level 4, the level 4 IRR should reflect the LP IRR excluding the GP entity, or portion of the GP entity, that receives incentive fee/carried interest economics. To the extent the carried interest portion of the GP cannot be separated from the pari passu GP interests, the deduction of the entire entity would be appropriate (to reflect the net LP IRR) but should be disclosed for consistency.

[8] Note that TGER is an annual measure where IRR considers TGER elements over the entire period of the IRR calculation. Therefore, the amounts may not be the same.

[9] In the context of the TGER paper, Performance Fees includes fund carried interest which may not be a "fee" for financial reporting purposes but generally serves to compensate the manager for performance over a threshold.

Investment Level IRR

Background

Investment level IRRs provide information on the contribution of performance of a single investment to the performance of the fund taken as a whole. An investment can include a single property or multiple properties as well as have multiple ownership structures. Club deals, joint ventures, wholly owned portfolios, and individual properties could all be considered investments. Returns for the investment level should include the impact of structural decisions and fees.

For funds with a single investment, the investment level IRR is similar to the fund level IRR. For funds with multiple investments, the manager determines the amount and extent that fund level fees and costs are attributed to (or allocated to) each investment. The methodology for allocation of fees and costs to the investment should be disclosed when investment level after-fee IRRs are reported. As inconsistent practices exist within the Industry, it is important to disclose the methodology for any apportionment of fund fees and costs when reporting investment level IRRs after-fees.

Property Level IRR

Background

Property level IRRs provide a measure of performance of an asset without regard to investment structuring (i.e., Investment level IRRs). As such, one can compare Property level and Investment level IRRs to determine how much structure was accretive or decretive to investment performance.

At the property level, the inputs for the IRR formula are based on property cash flows to/from the fund itself. Property level IRRs can be calculated on a leveraged or unleveraged basis.

Unleveraged property level IRR

The initial cash flow for the unleveraged IRR calculation is the total amount that is paid for the acquisition (before debt is considered) which should include the property's purchase price plus acquisition costs.

Other cash flows over the life of the property include the property's net operating income (before interest expense) reduced by the amount of capital improvements on a monthly or quarterly basis. Net operating income is depicted as a positive cash flow while net operating loss and capital improvements are shown as negative cash flows in the calculation.

The ending cash flow is the property's final real estate sale proceeds (before debt payoff) if the property has been sold. If the property has not yet been liquidated, the ending cash flow will consist of the latest period's operating cash flows plus an estimate of the residual real estate value (fair value of real estate less estimated costs to sell).

Leveraged property level IRR

The initial cash flow is the property's purchase price, less initial debt balance (equity investment only).

Other cash flows over the life of the property include the property's net operating income reduced by the amounts of capital improvements and debt service payments (principal and interest). Net income is depicted as a positive cash flow while net loss, capital improvements, and debt service payments (principal and interest) are shown as negative cash flows in the calculation. In addition, new debt placed on a property after acquisition is treated as a positive cash flow in the calculation.

The ending cash flow is the property's final real estate sale proceeds after the debt payoff amount if the property has been sold. If the property has not yet been liquidated, the ending cash flow, will consist of the latest period's operating cash flows plus an estimate of the net residual value. This estimate of net residual value must include the fair value of real estate less the impact of debt at the property level. The method for including debt (i.e., fair value or cost) and the inclusion or exclusion of estimated sales costs should be consistent across time and disclosed.

SECTION 2.03 – EQUITY MULTIPLES – BACKGROUND AND DISCUSSION

Link to Formulas

Section 1.03 – Equity Multiples

Overview

Multiples are relevant measures for fund level reporting within closed-end funds and are shown as ratios, with one financial input in the numerator and another in the denominator. Both the numerator and denominator are typically presented since inception of the entity rather than a discrete time period (month, quarter, etc.). Multiples can be presented independently but are commonly reported alongside IRRs. As a result, multiples are relevant measures for fund level reporting within closed-end funds. In addition, and as described below, investment level and property level multiples, when used in conjunction with IRR reporting, provide greater transparency when analyzing performance.

It is important to understand that the formula for each multiple is the same at the fund, investment, and property level. However, unlike the fund level where data such as capital flows to and from investors, uncalled recallable vs. non-recallable capital, aggregate fund values, and aggregate fees are known, the investment level multiples and the property level multiples may include certain assumptions. The extent of the assumptions necessary can depend on a number of factors including but not limited to: the availability of information (which may be limited by contract or systems) and choice of accounting policies. Therefore, the nature and utilization of estimates should be clearly disclosed when investment level and property level multiples are reported and used for analysis; otherwise, comparability will be compromised.

Investment multiples use a consistent grouping of fund metrics to create a better understanding of capital generated through an investment vehicle. These metrics are defined as follows:

Committed Capital (CC)

- Fund Level: Cumulative fund PIC plus unfunded capital commitments.
- Investment Level: Cumulative investment PIC plus unfunded capital earmarked to the investment.
- Property Level: Cumulative property PIC plus unfunded commitments from all owners (e.g., budgeted construction costs or renovation reserves).

Total Value (TV)

- Fund (or SMA) Level: Sum of residual fund net assets (NAV) plus aggregate fund distributions to investors since inception.
- Investment Level: Sum of residual investment net assets (NAV) plus aggregate distributions to investors / the fund / SMA which were attributed to the investment.

- Property Level: Sum of property fair value (net of debt) plus aggregate distributions paid since inception (note: if actual property distributions are not separately maintained, estimates can be calculated by aggregating the property's net operating income (after interest expense on any debt) and subtracting principal).

Residual Value (RV)

- Fund Level: Net asset value (NAV) of the fund
- Investment Level: Net asset value (NAV) of the investment
- Property Level: Net asset value (NAV) of the property

Total Distributions (D)

- Fund Level: Aggregate fund distributions paid to investors since inception
- Investment Level: Aggregate investment distributions paid to the fund since inception
- Property Level: Aggregate property distributions paid since inception
    - Note: if actual property distributions are not separately maintained, estimates can be calculated by aggregating the property's net operating income (after interest expense) and subtracting principal payments. This presumes a contribution was made for all capital expenditure that would reduce the distributable proceeds potentially

Note that capital contributed to the investment includes both capital from investors as well as any portfolio level financings attributed to the investment. When reported in that fashion, the TV numerator will also be increased by an equal amount.

Presented below as investment level and property level multiples are those which can be calculated when cash flows can be allocated to specific investments or properties. Suggestions for proxies for property level cash flows are provided. Future updates to the PRM will consider guidance relating to proxies for investment level multiples.

The four commonly used multiples are presented below.

Commonly Used Multiples

Investment Multiple or Total Value to Paid-In Capital Multiple (TVPI)

This investment multiple gives users information regarding the value of the entity relative to its cost basis, not taking into consideration the time invested. It is equal to the sum of the total distributions since inception and the residual value divided by the total paid in capital since inception. As an example, a fund level TVPI multiple equal to 1.50 is typically indicates that the investors have $1.50 of value in the fund for every $1 invested. In addition, assuming a joint venture interest (investment level) in a property (100% of property is reported at property level) with an investment level TVPI of 1.25 and a property level TVPI of 1.5, indicates that some of the profit on the 100% property was given up through waterfalls at the investment level.

Realization Multiple or Cumulative Distributions to Paid-In Capital Multiple (DPI)

The fund level DPI measures what portion of the contributed capital has been returned to the investors in the form of distributions. The DPI will be zero until distributions are made. As the fund matures, typically the DPI will increase. When the DPI is the equivalent of one, the fund has broken even. Consequently, a DPI of greater than one suggests the fund has generated profit to the investors. The investment level DPI provides the same type of information from the perspective of the fund's investment. Comparing the property level DPI to the investment level one can provide the level of realized return at the property level versus the investment level, again reflecting the waterfall effects at the investment level.

Paid-In Capital Multiple or Paid-In Capital to Committed Capital Multiple (PIC)

At the fund level, this ratio gives information regarding how much of the total commitments have been drawn down.

The paid in capital is the cumulative drawdown amount, or the aggregate amount of committed capital actually transferred to a fund by investors or by a fund to an investment. For a fund level PIC, typically a number such as .80 is read as 80% of the fund's capital commitments have been drawn from investors. At the property level, for construction projects, this multiple can be used to track actual costs versus the project's budgeted construction capital. This can track how well the project is tracking its budget on construction costs.

Residual Multiple or Residual Value to Paid-In Capital Multiple (RVPI)

This ratio provides a measure of how much of the return is unrealized. As the fund matures, the fund level RVPI will increase to a peak and then decrease as the fund eventually liquidates to a residual fair value of zero. At that point, the entire return of the fund has been distributed.

Residual value is defined as remaining equity in the fund or investment. At the fund level, an RVPI of .70 would indicate an amount equal to 70% of the fund's paid-in capital remains unrealized. The property and investment levels would show similarly and is most relevant to construction projects and budgets.

Before-Fee vs. After-Fee Multiples

After-Fee Multiples

Fund level multiples are always presumed to be shown after all fees and carried interest unless stated otherwise. This includes acquisition, investment management, disposition, incentive fees, and carried interest/promotes. In addition, fees and carried interest paid both within and outside the fund are included in the fee definition for multiple purposes.

Fees may reduce future distributions or increase the amount of capital called in a given notice and the method will impact the presentation of an equity multiple. The two most common are 1) the investment advisor will pay themselves via a withholding from a client distribution, or 2) the investor will pay the investment advisor via a capital contribution. Since equity multiples are ratios, the placement of the fee

within the calculation can greatly impact the result particularly early in the life of a fund. For example, the payment of a large incentive fee by a fund can potentially yield vastly different results in the DPI if it is subtracted from the distributions in the numerator versus if it is added to the contributions in the denominator.

The placement of the fees in the equity multiple calculations must follow the actual fee payment method used by the entity for which the calculation was made. A fund that pays fees via method #1 above must subtract those fees from the distribution term in all of the multiple calculations. Likewise, a fund that pays fees via method #2 must add those fees to the contribution term in all of the multiple calculations.

Before-Fee Multiples

Property level multiples are generally reported before fees and carried interest. Investment level multiples can be calculated both before and after fees and carried interest, provided that actual fees and carried interest can be attributed to the investment in a consistent manner. Before fee investment multiples can be challenging to calculate for funds or SMAs which include multiple investments and complicated fee structures as there is a need to unwind fees from the capital calls and distributions. Disclosures of methodology should be provided when this information is reported.

Before fee multiples are used in analysis. In order to calculate before fee fund level multiples, the after-fee ratios need to be adjusted. Distributions must be increased for cumulative fees which were withheld from prior distributions, or capital contributions must be reduced for cumulative fees contributed. The adjustment for fees should follow how fees were actually paid or accrued in the case of unrealized investments; some fees may be paid with distribution (i.e., performance fees or promotes) while others are paid by contributions (i.e., management fees). In addition, the NAV used as the residual value must also be increased for any accrued fee liabilities.

Reinvested Distributions

Some real estate funds may have distribution reinvestment plans (DRIPs) in which a distribution is declared but the cash from the distribution is reinvested automatically in the Fund rather than being paid out to the investor. For equity multiple calculation purposes, the DRIP distributions are to be included as both a distribution and contribution in the calculations even though the investor never has access to the cash.

The underlying economics of the transaction represent a distribution from the fund to the investor and a decision by the investor to contribute back into the fund and should be treated as such in the fund level multiple calculations. The fact that the investor and fund agreed that the contribution would be made automatically which eliminated the back-and-forth flow of cash is merely an efficiency in the process and does not change the fact that both a distribution and contribution occurred.

Recallable / Recycled Capital

Through the standard course of investment in a closed-end fund, investment managers have the opportunity to receive distributions from investments during the reinvestment period. If allowed within the fund documents, the investment manager can call this distributed capital down a second time for further use. This

is considered recycled or reinvested because it was contributed a first time, sent from the investment back to the fund, and then potentially used towards a second investment.

Accounting for recallable capital within reported equity multiples requires additional consideration as to how the re-contribution is handled from an accounting perspective. While recycling capital includes a recontribution of capital, there are times where the capital never leaves the fund before it is contributed to a new investment. Investment managers must choose how to present the equity multiple as the total contribution of capital will not be picked up from an investor perspective if the recallable capital is not distributed back to investors before being called back. The most conservative approach would be to consider any re-contributed capital as a new part of the denominator as this would be a "dollar being used again." This can be challenging depending on how the accounting relating to the recalled capital is done; if the capital never leaves the fund there may need to be an outside adjustment to be able to accurately reflect the contribution when it is recalled.

SECTION 2.04 – TOTAL GLOBAL EXPENSES RATIO – BACKGROUND AND DISCUSSION

Link to Formulas

Summary

TGER is principles-based measure which was developed to facilitate comparison of fees and costs between real estate investment vehicles that operate across different regions of the globe. The fees and costs included in TGER are all components of the investment vehicle load. As such, TGER is a measure of the fund's load. TGER was developed in collaboration with INREV, ANREV, and the Reporting Standards.

Although rooted in authoritative guidance and industry standards, it is not meant to be prescriptive thus diversity in practice may occur as with application of any principles-based guidance. TGER is a stand-alone metric and does not conflict with other Industry standards that include fee and expense information such as Related Party disclosures required by GAAP (see the *Reporting Standards Fair Value Accounting Policy Manual*.)

For fiscal years beginning on or after December 15, 2019, TGER is a required element in Volume I for all open-end funds and for closed-end funds which launched in 2020 or after (PR.23). TGER is required to be reported annually and for a 12-month rolling period. (A prior year comparison of fees and costs can be reported quarterly.) For closed-end funds, TGER is best looked at over a time horizon and accordingly, in addition to annual reporting of TGER, it is recommended that a since-inception TGER is also reported in order to show the trending of expense burden over a period of time or at any given point within a fund's lifecycle. A since-inception based TGER must be clearly labeled as such. The since- inception date must be indicated.

For older closed-end funds, information necessary to calculate TGER may not be readily available.

There is no requirement or recommendation for TGER for SMAs because of the nature of the portfolios as being structured between a single investor and an investment manager.

TGER bridges the gaps in terminology and definitions for the most widely used categories of vehicle fees and costs that may be charged (directly and indirectly) by investment managers and service providers. Additionally, the ratio promotes consistent treatment and improved disclosure of vehicle fees and costs, facilitating further transparency and cost control.

The summary information on TGER and related ratios included below is an abstract from the Guidance Paper *Total Global Expense Ratio: a globally comparable measure of fees and costs for real estate investment vehicles*. The Guidance Paper can be found in Volume II.

TGER measures the fees and costs related to participation in an investment vehicle and enables comparison across products, regardless of the vehicle domicile, structure, and management activities. These fees and costs, defined in the chart below, are applied against the time-weighted average Gross Asset Value (GAV). (See Appendix A3 for the calculation of GAV.). Please note that a NAV based TGER may also be reported in addition to the required GAV-based TGER and must clearly be labeled as such.

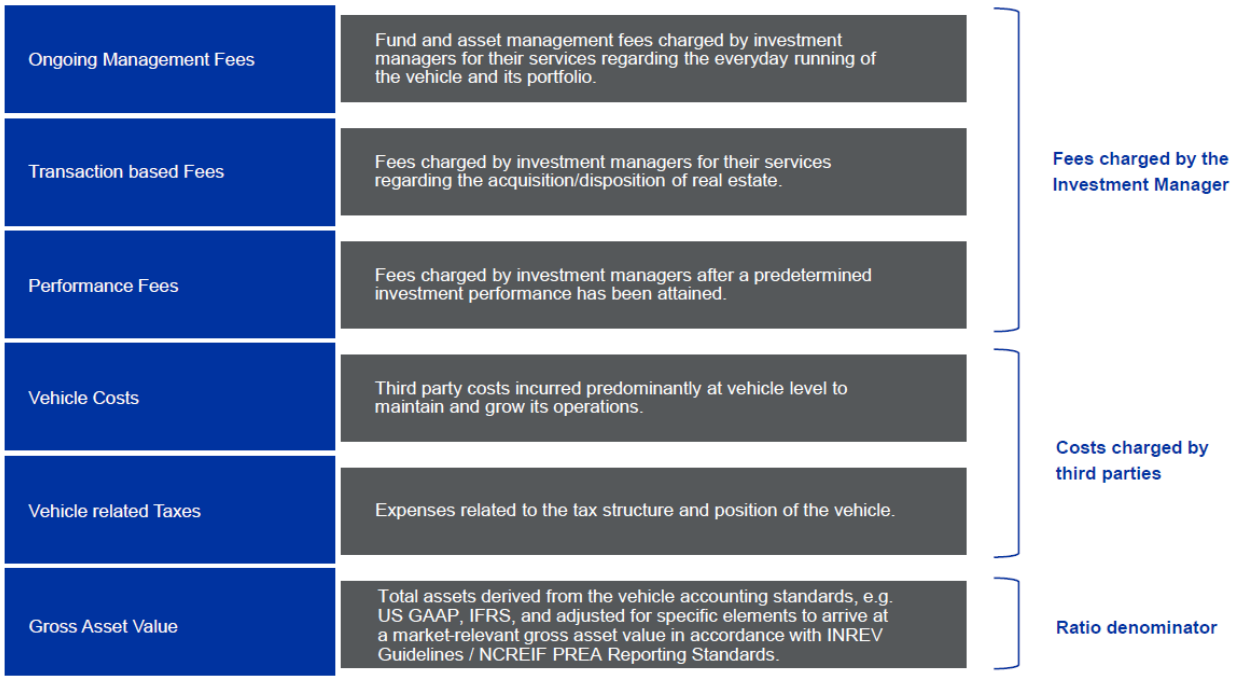
See Appendix A2 for a detailed listing of fees and costs included and excluded from TGER. Note that definitions for all fees and costs are included in the Global Definitions Database

Calculation

The chart below shows the main components of the ratio. Appendix A2 provides the details of fees and costs within each category.

Main components of the ratio

A description of the main fees and costs categories included in the TGER is presented below.



In order to develop a global measure of load, one must understand not only the nature of the fees and costs but also the treatment of such fees and costs within the accounting records which vary around the world. Fees and costs to be included in TGER are based on the nature of the service regardless of the entity at which they are recorded (e.g., fund, special purpose vehicle, property). Managers may need to apply judgment as to whether an expense is considered a fund expense or an individual investment expense.

To illustrate, consider audit costs relating to the annual audit of the vehicle. In some cases, these costs are allocated to each investment by the investment manager; in other cases, a manager may not allocate these costs to the investment. TGER looks at the nature of the cost rather than where the cost is recorded on the

books and reflects the costs of the annual audit in relation to the vehicle accordingly. Fees and costs are categorized according to the respective nature of the underlying services.

It is also important to note that some Investment Managers may charge fees within the Fund where other Investment Managers charge fees separately. For the sake of comparability, fees that are paid by investors outside of the fund should be included in TGER. Fees should include rebates (i.e., a reduction of the fee) if applicable.

Any additional fees and costs charged at the specific investor feeder level should be excluded from TGER. This is because not all investors in a fund participate in all feeder vehicles the fund may establish.

Disclosures

As fund strategies, transactions, and manager compensation become more and more complex, it is important that disclosures accompany TGER reported results. Accordingly, when TGER is reported, the following disclosures are required (PR.23.1-23.4).

- Use of rebates. Fund management fees may be adjusted for rebates, fee reductions, fee waivers, and transaction costs. Therefore, the management fees included in TGER include these reductions (i.e., net).
- Types of fees and costs included in the calculation. Please note that fees paid to the Investment Manager are captured within related party disclosures in the financial statement footnotes.
- Use of estimates: In some cases, estimates of the constituent elements of TGER may be necessary.
- Fees paid in lieu of third-party services. In some cases, fees that are paid to the Investment Manager that would otherwise be paid to third parties and are not included in TGER costs must be disclosed. An example of such fees are property management fees paid to an affiliate of the Investment Manager.

Estimated TGER for Non-Operating Model Reporters

Non-operating model reporters that follow a strict interpretation of Accounting Standards Codification (ASC) 946, Financial Services, Investment Companies, are required to report expense ratios within their financial statement disclosures. These expense ratios are intended to measure the fund's fee and expense load. Although these expense ratios may be similar in some ways to TGER, the components of the GAAP ratio may be different.

The operating and non-operating models of reporting are described in detail within the Fair Value Accounting Policy Manual.

SECTION 2.05 – MEASURES OF DISPERSION AND RISK – BACKGROUND AND DISCUSSION

Link to Formulas

Measures of Dispersion

Overview

Dispersion is a statistical measure of volatility using a range of returns across either the same time period for multiple investments / funds or the same investment / fund over multiple time periods. Measures of dispersion may include but are not limited to the methods described below.

High/Low

The simplest method of expressing the dispersion is to disclose the highest and lowest annual return earned amongst a group of entities for the entire year or, in the case of a fund return, the highest and lowest annual return earned by investments in the fund for the entire year. It is also acceptable to present the high/low range, defined as the arithmetic difference between the highest and the lowest return. It is easy to understand the high/low disclosure but there is a potential disadvantage. If during any annual period there is an outlier (a portfolio or investment with an abnormally high or low return), then this presentation may not entirely represent the distribution of the returns. Other measures, which are more difficult to calculate and interpret, are statistically superior.

Interquartile Range

Another dispersion measure is a range. An example of such a range is an interquartile range. An interquartile range (IQR) is the difference between the first and the third quartiles of the distribution. The distribution of returns is divided into quarters to create quartiles. The first quartile will have 25 percent of the observations falling at or above the first quartile. The third quartile will have 25 percent of the observations fall at or below it. So, the interquartile range represents the length of the interval which contains the middle 50 percent of the observations (data). As the IQR it does not utilize values at either extreme of the return distribution, the interquartile range will not be skewed by outliers. One drawback to this measure is that clients may not be familiar with the methodology used to calculate the IQR. Additionally, significant dispersion occurring at the tail ends of the distribution yet not considered outliers will almost surely be ignored.

Standard Deviation

Standard deviation is the most commonly accepted measure of dispersion. In groups, the standard deviation measures the cross-sectional dispersion of returns to a group of entities.

If the individual portfolio returns are normally distributed around the mean return, then approximately two-thirds of the portfolios will have returns falling between the mean plus the standard deviation and the mean minus the standard deviation.

The standard deviation of portfolio returns is a valid measure of group dispersion. Most spreadsheet programs include statistical functions to facilitate the calculation (such as the STDEV function in Microsoft Excel).

At a minimum, quarterly data points should be used for calculating the standard deviation since valuations must be completed at least quarterly for compliance with Volume I. The resulting quarterly (or more frequent as appropriate) calculation should then be annualized. The NFI-ODCE only reports standard deviations for periods containing at least 20 full quarters (five years) as any measurements of smaller time periods are thought to produce results that are statistically insignificant.

Risk Ratios

Overview

Listed below are several ratios that can be used to evaluate fund performance and to measure and compare portfolio risk. Please note that the measures listed below are widely used in financial circles but their applicability to real estate is highlight debated as real estate returns are typically asymmetric, and certain measures of dispersion (i.e., standard deviation) that are used in the risk measures below are thought to be most suitable for investments that have normal expected return distributions.

Sharpe Ratio

The Sharpe Ratio was invented by Nobel Laureate and U.S. Economist William Sharpe. It can be calculated for expected returns or for historic returns. It is a ratio defined as the performance in excess of the risk-free rate divided by the volatility of the returns as measured by the standard deviation of the portfolio's (or fund's) return.

Risk free rates are typically presumed to be short term U.S. treasury rates. Sharpe ratios should also be shown on an annualized basis. For example, if monthly performance is used in the above calculation, multiply the calculated Sharpe ratio by the square root of time: monthly return periodicity would utilize '12' to annualize the ratio. The higher the Sharpe ratio, the better the fund's historical risk-adjusted performance. A ratio of 1.0 indicates one unit of return per unit of risk; 2.0 indicates two units of return per unit of risk. Negative values indicate loss, or that a disproportionate amount of risk was taken to generate positive returns. Generally, a measure of above 1 is considered good, and above 3 is considered excellent.

Treynor Ratio — (also known as the Reward to Volatility Ratio)

The Treynor Ratio measures returns earned in excess of the risk-free rate per each unit of market risk. It is similar to the Sharpe ratio, but uses beta as the measure of volatility.

Tracking Error

The Tracking Error measures how closely a portfolio (or fund) performs compared to its benchmark. Tracking errors are typically only reported for periods of greater than five years, because of the volatility in shorter period returns. Although there are several variations of the tracking error formula, the most commonly used in the Industry simply calculates the standard deviation of the difference between the return of the fund and the benchmark.

Tracking error percentages should also be shown on an annualized basis. For example, if quarterly performance is used in the spreadsheet calculation, multiply the calculated Tracking Error by the square root of 4 to annualize the results. Assuming normal distribution of the return differences, the Tracking Errors can be used to set general returns expectations. For example, a Tracking Error of .02 would indicate that 66.7% of the time, the return would be within +/- 2% of the benchmark return.

Correlation

Correlation is a statistical measure of the degree to which two investments move relative to one another. This measure is often used when comparing portfolio returns against appropriate benchmarks. The Pearson Correlation Coefficient is frequently used as it is nonparametric and requires no normal distribution.

The covariance statistic used in the calculation of correlation is not especially intuitive nor are covariances comparable across data sets. The correlation coefficient is straight forward as the measure will always yield a value between -1.0 and +1.0. A minimum of ten periods must be used in for the correlation calculation to be statistically significant. A perfect correlation of +1 indicates that both investments always move together, whereas a correlation of 0 indicates there is no relationship between the two, and a negative correlation indicates an inverse relationship between the two. It is important to note that when calculating the correlation of a fund's return to a benchmark's return, the result does not necessarily indicate the degree of out/underperformance, but rather can only be used to predict that the returns move in the same or opposite direction as the benchmark.

SECTION 2.06 – LEVERAGE – BACKGROUND AND DISCUSSION

Link to Formulas

Section 1.06 – Leverage

Overview

This section of the PRM responds to increased investor demand for more information to better understand, measure, and manage debt-related investment risks. It recognizes the fundamental role that debt strategy plays in the commercial real estate Industry.

Leverage is an important component that increases the volatility of returns. In economic upturns, increased leverage increases returns exponentially. In economic downturns, increased leverage lowers returns exponentially. When leverage is utilized, it can significantly alter the risk and return profile of the investment and the related portfolio. For example:

- Leverage directly affects (increases) return volatility.
- Secured, non-recourse debt can provide the borrower with a "put option" limiting borrower downside to the value of its equity.
- Collateralized borrowing frees up equity capital for deployment in new investments.
- Under negative scenarios, leverage can lead to financial distress, force suboptimal investment decisions, and distract investment advisors from seeking profitable ventures.

Because of these factors, consultants, fund investors, and prospective fund investors view leverage reporting with great interest. Providing definitional clarity and consistent disclosure will lead to increased homogeneity of reporting helping investors better understand potential fund risk, its expected return for the risk taken, the potential for investment loss, and the fund's risk and return expectations compared with other investment options.[10]

Defining Leverage

Definition

Per Eugene F. Brigham, in his textbook *Fundamentals of Financial Management*[11], leverage is defined as a general term for any technique to multiply gains and losses. Common methods to attain leverage are to borrow money or to use derivatives.

[10] *Risk Webb 2.0: An investigation into the causes of Portfolio Risk*, March 2011, published by the Investment Property Forum and based on data from IPD.

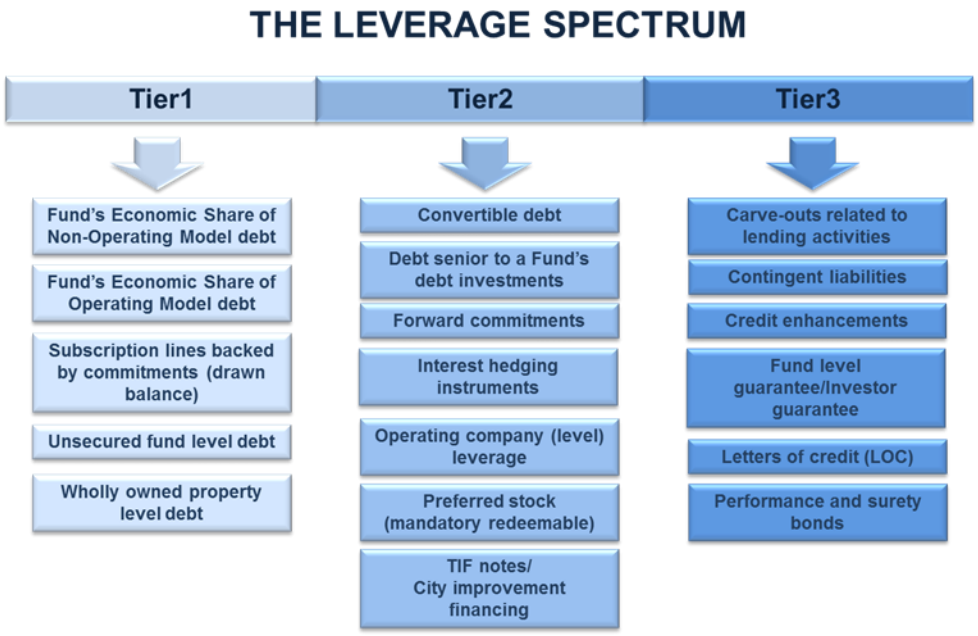
[11] Eugene F. Brigham and Joel F. Houston, *Fundamentals in Financial Management*, Cincinnati: South-Western College Pub, 199

Confusion may arise when people use different definitions for leverage. The term is used differently in investments and corporate finance, and has multiple definitions in each field, giving rise to varying names such as "accounting leverage", "economic leverage", "financial leverage", etc.

In institutional real estate investment arena, leverage is typically referred to as using debt and other debt-like instruments to acquire, update, and/or operate assets. In essence, the use of leverage lowers the equity required to fund an investment by sharing the risk of the investment with the lender. Leverage may decrease or increase returns beyond what would be possible through an all-equity investment.

Leverage Spectrum

The Leverage Spectrum (Exhibit 1[12] below) illustrates the variety of complex debt structures that can be utilized by institutional real estate advisors on behalf of investors. The Leverage Spectrum serves to facilitate clear understanding, comparability, and consistency of leverage positions within funds thereby fostering effective qualitative and quantitative analysis and monitoring.



The elements on the left side of the spectrum are generally reported within the fair value GAAP based financial statements and usually can be identified directly on or embedded within the Statement of Net Assets. Fund advisors frequently use these leverage elements to calculate leverage ratios and other measures of leverage risk. Moving towards the right side of the spectrum, the elements become increasingly opaque, not easily quantifiable, and/or may not be identified within the financial statements or footnotes. Elements in Tier3 are disclosed to investors in a variety of ways, be it in the periodic reporting package, investment summaries, or presentations, etc.

[12] The elements within each tier were identified through research, analysis and discussions with industry participants.

It is important to note that in some cases fund management may not be contractually entitled to the information necessary to calculate or extract the leverage within the investment (e.g., an investment in a joint venture with a foreign partner). In such cases, disclosures are appropriate and suggestions are provided within this guidance. In addition, in some cases the timing for receipt of this information may lag investor report deadlines. In those instances, reporting such information on a lag basis may be appropriate.

A discussion of the elements included in the three tiers follows.

Tier1

Tier1 (T1) elements are generally utilized to invest in real estate within more traditional investment structures such as investments which are wholly owned or acquired through joint ventures. Also, T1 leverage is more commonly used for operating properties (as opposed to development) within the office, retail, apartment, or industrial property types. Generally, T1 leverage elements are found on the face of the Fund's Statement of Net Assets for wholly owned and consolidated joint ventures or are reported net for either equity joint ventures, other equity investments, or investments made by investment companies (depending on whether the Operating or Non-Operating reporting model is utilized). In addition, T1 elements include debt secured by the Fund for whatever purpose.

It should be noted that T1 leverage can be calculated based on either cost (T1 leverage (C) or fair value (T1 leverage (FV)).

The following are common T1 elements:

Fund's Economic Share of Non-Operating Model debt

As consolidation is generally not allowed under the Non-Operating Model, the assets and liabilities associated with any investment are shown net. The T1 leverage includes the Fund's Economic Share of leverage elements that are embedded in these investments.

Fund's Economic Share of Operating Model debt

Funds that are reporting under the Operating Model may have interests in an entity (e.g., joint venture), which itself (or through another entity) invest in real estate assets, which are leveraged. T1 leverage should include the Fund's Economic Share of leverage elements that are reported on the Fund's Statement of Net Assets for consolidated entities and leverage elements that are embedded in unconsolidated equity investments.

When calculating the Fund's economic share of debt, it is important to understand how joint ventures are reported and consolidation rules apply under both the Operating and Non-operating models.

Subscription lines backed by commitments (drawn balance)

Subscription-secured credit facilities are revolving lines, drawn upon to make acquisitions and then paid down from capital calls and/or asset-level borrowing. Typically, their terms coincide with a Fund's investment period during which capital can be called.

The collateral is a pledge of investors' capital commitments to the Fund, the Fund's rights to call that capital and enforce the investors' capital funding obligations, and the accounts into which capital is funded. In most instances, the ''borrowing base'' is limited to a certain percent of the amount of unfunded capital commitments of creditworthy investors (called ''Included Investors''). Thus, subject to the credit line's maximum loan amount, the amount a Fund can borrow grows as more Included Investors are closed into the Fund, and then ultimately shrinks as more capital is called over time.

Subscription lines usually are put in place amidst a series of fundraising closings and are sized accordingly. The lead lender(s) may first do a ''bridge facility'' that is replaced by a larger, ''permanent facility'' as the Fund reaches the necessary size and syndicated co-lenders are added. Fund documents often limit the amount of time that subscription line borrowings may be outstanding (e.g., 90 or 120 days) and many fund advisors use a subscription line as a means to manage the capital call process and attempt to limit capital calls to once a quarter to ease the administrative burden for its investors. As a Fund acquires assets and matures, it may obtain an unsecured credit line that can be tapped to manage liquidity needs as the subscription line tails off.

Only the drawn balance of subscription lines that have the ability to be outstanding for more than 90 days and/or when the advisor has the ability to extend the term is included in Tier1 debt. In these cases, the subscription line has more leverage characteristics.

It should be noted that disclosures surrounding the terms and use of sub lines are a hot topic within the Industry. As the situation warrants, additional disclosures will be added to the PRM.

Unsecured Fund Level Debt

Unlike subscription lines back by investors' commitments, unsecured fund level debt is any liability at the fund level that is not secured by collateral.

Wholly- Owned Property Level Debt

Funds may be directly invested in real estate assets and debt reported on the Fund's Statement of Net Assets for wholly-owned properties should be included in T1 leverage. Other property level debt such as second mortgage liabilities and mezzanine debt liabilities should also be included in T1.

Tier2

Generally, the elements in Tier 2 (T2) are "debt-like," as subject to certain conditions and contingencies, and have the same impact as debt in that they put the Fund investor's capital at additional risk. Unlike Tier 1, these items are generally not thought of as traditional debt. In addition, unlike elements in Tier 3 below, the amount of the leverage in Tier 2 is more easily quantifiable.

T2 leverage elements are generally associated with more complex investment structures and less traditional investments. In some cases, quantitative and qualitative information about the leverage associated with these investments may be contained in the footnotes to the financial statements (e.g., forward contracts). In other cases, quantitative and qualitative information may not be reported within the financial statement report but are likely available (e.g., debt senior to debt investments made by a Fund) within the investment advisor's organization.

It should be noted however, that if leverage is utilized to make the investment, then that leverage is included in T1 above. For example, if the Fund made an investment in a second mortgage using both cash and debt, the debt would be in T1. However, the first mortgage that is senior to the Fund's second mortgage investment would b be in T2.

The following are common T2 elements.

Convertible Debt

Convertible debt in the form of a mortgage gives the lender an option to purchase a full or partial interest in the property (or the entity that owns it) after a specified period of time allowing the lender to convert the mortgage into equity ownership. Usually, with this type of purchase option, the lender will accept a lower interest rate in exchange for the conversion option.

Debt Senior to a Fund's Debt Investments

Funds invest in real estate through a variety of investment structures including investments in debt instruments. These debt investments may take the form of senior debt, subordinated debt, participating mortgages, etc. With some debt investments, the Fund's investment is subordinated to other debt on the property. This other debt is senior to the Fund's debt investment and accordingly, depending on the performance of the asset on which the Fund's debt investment was made, the Fund's equity holders are at risk. As an example, although the investment in mortgages is an indirect investment in real estate, the risk taken by investors in these transactions is similar to the risk taken by the Fund when equity investments are made in joint ventures which hold leveraged properties. It should be noted that the amount of debt which is senior to a Fund's debt investment is not shown on the face of the financial statements for either the Operating or Non-Operating Model and may not be disclosed in the footnotes since the Fund has not made a direct investment in the debt which is senior to the Fund's debt investment.

For more information on subordinated debt, see the research paper in Volume II, *Assessing and Measuring Financial Risk Related to Subordinated Debt Investments in Private U.S. Institutional Real Estate Funds*.

Forward Commitments

Real estate investment advisors, on behalf of the Funds and accounts they manage, periodically enter into forward commitments (contracts) to acquire, for a fixed price, real estate investments to be constructed in accordance with predetermined plans and specifications. Such forward contracts are subject to satisfaction of various conditions, including the completion of development of the underlying real estate project pursuant

to approved plans and specifications within prescribed budget and time limits. Failure of a project to satisfy these conditions generally provides the Fund with the option not to fund the investment. For each project, the amount of the Funds' investment and conditions under which it will invest are the subject of formal documentation between Fund, the developer, and the construction lender.

In addition to the risks inherent in any real estate investment, there are additional risks related to the development of new property. Under the forward contract structure, each partner accepts specific risks related to their role in the partnership. For example, the primary risks of development, cost overrun and completion risks, could be retained by the developer; and in this case, the developer would be responsible for the project costs in excess of an investment budget approved by the investor at the commencement of development. The Fund provides the capital commitment and may accept the leasing risk by pledging to acquire the asset upon construction completion. The Fund provides a construction lender guarantee, which mitigates the repayment risk and allows the lender to offer favorable construction financing terms to the developer. Upon acquisition of the new property, the Fund typically invests a majority of the equity.

Interest Hedging Instruments

A hedging instrument is a financial instrument whose cash flows should offset changes in the cash flows of a designated hedged item (asset, liability, or investment). Two commonly used types of interest hedging instruments are:

- Interest Rate Caps: Maximum increases allowed in interest rates, payments, maturity extensions, and negative amortization on reset dates.
- Interest Rate Swaps: Two parties exchange a floating interest rate for a fixed interest rate or vice-versa.

Operating Company (Level) Leverage

Operating company leverage is the Fund's Economic Share of the leverage reported on the books of the Operating Company. If an investment is made by the Fund in an operating company using cash and leverage, then that leverage is included in T1. The leverage which the operating company has on its corporate books should be included in T2.

Preferred Stock (Mandatory Redeemable)

Preferred stock is frequently used to capitalize operating companies or public REITs. In addition, a Fund can be structured as a corporation and capitalized with preferred stock. In all cases, preferred stock has preference over common stock in the payment of dividends in the Fund and in the distribution of corporation assets in the event of liquidation. Preference means the holders of the preferred stock must receive the dividend before holders of common shares. Normally this type of stock comes with a fixed dividend rate and may or may not come with voting privileges. From a legal and tax standpoint, preferred stock is considered equity not debt even though it has characteristics of debt (through dividends) and equity (through potential appreciation). Because of its debt-like characteristics, preferred stock is included in T2.

TIF Notes/ City Improvement Financing

"TIF" or Tax Incremental Financing is a public financing method used for redevelopment, infrastructure, and other city improvement projects. This type of financing uses future gains in taxes to subsidize current improvements that are projected to create those gains.

Tier3

Tier3 (T3) leverage includes the leverage within investments that is not readily or easily quantifiable due to their contingent nature; however, the use of any of these instruments by the Fund is generally disclosed within the footnotes to the financial statements.

The following are common T3 elements.

Carve-Outs Related to Lending Activities

When the term carve-out is used within lending, it describes provisions within nonrecourse commercial real estate loans where the borrower may become personally liable in the event of certain egregious acts (e.g., fraud). In recent years, many lenders have expanded the scope of such "carve-outs" to include risks of exposure to the property's economic deterioration or neglect. Some nonrecourse provisions provide that the borrower is liable for the specific damages resulting from the violation or breach of a carve-out, while others state that the entire loan becomes recourse to the borrower if any of (or certain of) the excepted acts occur.

Contingent Liabilities

A contingent liability is defined as an existing condition, situation, or set of circumstances involving uncertainty as to possible outcome (such as Guarantees and/or Carve-Outs) to an enterprise that will ultimately be resolved when one or more future events occur or fail to occur.

Credit Enhancements

Credit enhancement is additional collateral, insurance, or third- party guarantee required by the borrower generally in exchange for a lower interest rate or cost of capital.

Fund Level Guarantee/Investor Guarantee

Guarantee is a credit enhancement by an issuer (in this case, either the investor or the fund). Examples include:

- a guarantee of timely payment and/or;
- a guarantee of payments to the security holder in the event of a cash flow shortfall from the mortgage pool jeopardizing promised coupon payments, and/or;
- a guarantee of repayment of principal to the security holder. Such guarantees may be limited and they may be provided in part by the issuer with a third-party guarantee for any losses in excess of

some specified limit. In any case, the ability of the issuer or third party to perform on the guarantee must be considered by the investor.

Letters of credit (LOC)

Letters of credit are often used in real estate transactions to secure obligations. Instead of providing a cash deposit, a buyer, borrower, or tenant may secure its obligations under a contract of sale, loan commitment, or lease with a letter of credit.

A letter of credit is a commitment made by a bank or other party (the "issuer"), upon the application of the issuer's client (the "applicant"), to pay the amount of the letter of credit to a third party (the "beneficiary") upon the beneficiary's submission to the issuer of the documents listed in the letter of credit. By separate reimbursement agreement, the applicant agrees to reimburse the issuer for any liability incurred by the issuer under the letter of credit.

Performance Bonds

A type of surety bond that guarantees the contract will be completed according to its terms and conditions of the contract.

Surety Bonds

A surety bond ensures contract completion or compensation in the event of a default by the contractor. A project owner (often in development projects) seeks a contractor to fulfill a contract. In the event of the contractor defaulting, the surety company will be obligated to find another contractor to complete the contract or provide compensation to the project owner.

Fund Level Leverage Risk Measures

Fund T1 Total Leverage

Fund T1 Total Leverage includes all T1 elements shown in the chart above. Fund T1 Total Leverage must include any Fund-level debt, but not other liabilities such as accounts payable or accrued expenses. Total leverage is not reduced by the Fund's cash balances. An illustration of the Fund T1 Total Leverage can be found in Appendix A4.

Note that Fund T1 Total Leverage can be calculated on either a cost basis (Fund T1 Total Leverage (C), that is, the remaining principal balance, or on a fair value basis (Fund T1 Total Leverage (FV)).

Fund T1 Leverage Measures

Background

The Fund T1 leverage measures presented below have been derived from measures commonly used by lenders to understand the risk associated with making a loan on an investment. The Fund T1 Leverage Percentage has been derived from the Loan to Value Ratio (LTV) and the Fund T1 Leverage Yield has been

derived from the Debt Yield. As with many measures of performance and risk, attribution analysis would be necessary to analyze contributors to the fund's performance and facilitate the development of appropriate strategies beneficial to the fund's equity holders.

Fund T1 Leverage Percentage

Overview

The Leverage Percentage is arguably the most widely used measure of leverage for monitoring financial risks in a real estate portfolio. The Leverage Percentage indicates what proportion of debt a fund has relative to the value of its assets. This measure shows stakeholders in the fund the level of fund leverage along with the potential risks the fund faces in terms of its debt load. When Fund T1 Total Leverage (C) is used in the numerator, the stakeholders gain an understanding of the fund's ability to pay the lender. Used in conjunction with other measures of financial health, the Fund T1 Leverage Percentage can help investors determine an entity's level of financial and potential default risk. The measure is sensitive to changes in cap rates (i.e., valuation changes).

The real estate Industry utilizes two primary reporting models – Operating and Non-Operating. In order to calculate a Fund T1 Leverage Percentage which is model-neutral and considers the Fund's Economic Share of leverage on investments, adjustments are required to be made to the denominator of the Fund T1 Leverage Percentage (i.e., Total Gross Assets) as illustrated in Appendix A3.

Note that total assets, rather than real estate assets are used as an indicator of the amounts available to satisfy debt liabilities. In addition, since cash and other assets are frequently part of equity (e.g., joint venture) investments and such investments can be presented and accounted for differently depending on which model is used by the Fund, including all gross assets enhances the comparability of the ratio across funds.

If Tier1 leverage associated with investments is excluded from the calculation, disclosures should be made including an explanation of why the leverage is being excluded from the leverage calculation, along with what percent or dollar amount of the investment is included in total gross assets. (See the Leverage Spectrum discussion above.)

Illustrations and disclosures

Illustrations of the Fund T1 Leverage Percentage calculations under both reporting models along with related disclosures can be found in Appendix A4.

Fund T1 Leverage Yield

Overview

The higher the Fund's T1 Leverage Yield the better because risk is lowered. For example, a Fund may have a leverage yield which is significantly higher than current rates because it has a low leverage percentage. Depending on weighted average interest rates on existing debt and weighted average remaining term, Fund management can decide to finance or refinance to increase equity. Whereas the fund's leverage percentage

provides a measure of exposure to leverage and is sensitive to changes in value, the Fund's leverage yield provides an indication of an ability to pay (or cover) loan principal balances when due and is not sensitive to changes in value.

Depending on the reporting model presented (operating vs. non-operating) the Fund's T1 Leverage Yield may not be comparable across funds. One should consider this when trying to compare fund performance.

Weighted Average Interest Rate of Fund T1 Leverage

Overview

The weighted average interest rate provides a measure of impact of debt service on income. The weighted average interest rate is defined as the average interest rates of both fixed and floating rate debt at period end weighted by the outstanding principal balances at period end. Premiums or discounts associated with the valuation of debt should be excluded from this measure.

Calculation

The following is an example of the calculation:

	Average Interest Rate @ Period End	Outstanding Principal Balances @ Period End	Weight*	Weighted Average Interest Rate
Fund's Economic Share of debt	5.50%	20,000,000	0.29851	0.0164
Subscription line backed by commitment	6.25%	15,000,000	0.22388	0.0140
Wholly owned property level debt	4.15%	32,000,000	0.47761	0.0198
T1 Total Leverage		**67,000,000**	**1.00000**	**0.0502**
				5.02%

*outstanding principal balance for each debt divided by the total outstanding balance

Weighted Average Remaining Term of Fixed-Rate Fund T1 Leverage

Overview

The weighted average remaining term provides a measure of determining exposure to refinancing risks associated with fixed-rate debt. Generally, the classification of a loan as fixed rate debt depends upon what is stipulated in the loan documents without regard to triggers associated with the breach of loan covenants.

Calculation

The weighted average remaining term of fixed-rate Fund T1 Leverage is the average remaining term until the maturity date weighted by the outstanding principal balances. The remaining term is defined as the period between the period end and the maturity date measured in years and fractional months. Extension periods that have not been formally exercised should not be included in the remaining term measure. The weighted average remaining term of fixed rate Fund T1 Leverage is calculated using Fund T1 leverage which has a fixed interest rate.

Weighted Average Remaining Term of Floating-Rate Fund T1 Leverage

Overview

The weighted average remaining term provides a measure of determining exposure to refinancing risk. Generally, the classification of a loan as fixed rate debt depends upon what is stipulated in the loan documents without regard to triggers associated with the breach of loan covenants.

Calculation

The weighted average remaining term of floating-rate Fund T1 Leverage is the average remaining terms until the maturity date weighted by the outstanding principal balances. The remaining term is defined as the period between the period end and the maturity date measured in years and fractional months. Extension periods that have not been formally exercised should not be included in the remaining term measure. The weighted average maturity of floating rate Fund T1 Leverage is calculated using Fund T1 leverage which has a floating rate of interest.

Investment Level and Property Level Leverage Risk Measures

The leverage measures included in this section are suitable to analyze the impact of leverage at the investment level and the property level.

Debt Service Coverage Ratio (DSCR)

Overview

The debt service coverage ratio is used to measure the amount of cash flow from the property/investment's operations that is available to meet annual interest and principal payments on debt. A DSCR of greater than 1 would mean there is a positive cash flow and conversely less than 1 would imply a negative cash flow. For example, a DSCR of .95 would suggest that there is only enough net operating income to cover 95% of annual debt payments (i.e., principal and interest). This would mean that the borrower would have to source funds elsewhere to keep the project meeting its debt payment obligations.

A potential drawback of the DSCR is that under low interest rate environment, the DSCR ratio can be misleading by implying that there are enough cushions to cover debt payments. For this reason, Debt Yield is a complementing and important metric to look into when evaluating the impact of the amount and structure that leverage has on cash flows.

Debt Yield

Overview

The use of this measure is more common since the global financial crisis. Previously, the debt service coverage ratio and the LTV were the most common measures utilized. The debt yield provides an additional measure of leverage risk.

Whereas the debt service coverage ratio (DSCR) measures the ability to pay principal and interest currently, the debt yield measures the expected return to the investor in the event of default by the borrower. As an example, assume that a DSCR on a loan dips below 1 - a signal that the loan cannot be paid currently. The loan could be refinanced by either a reduction in interest rate, or an extension of term. Further, if net operating income is unchanged, the DSCR could rise above 1. Without consideration of the impact on the debt yield, it may appear that the risk to the lender is reduced. However, in this example with no other changes, the debt yield would drop signaling that the lender would need to accept a lower return in the event of default.

Contrasted with Loan to Value (see below), the debt yield is not sensitive to capital value changes (i.e., cap rates). The debt yield focuses on the comparison of net investment income to total leverage. Accordingly, a reduction in the debt yield is immediately triggered if net investment income falls. The LTV changes as valuation changes are recognized, which may lag.

In summary, the higher the debt yield, the lower the risk. The debt yield is useful for three reasons:

- Provides an assessment of the ability to pay currently by focusing on net operating income:
    - Ignores appraised value
    - Is not sensitive to changes in interest rates
- Provides information on real time changes in net operating income
- Provides assessment of ability to pay back principal when due
    - Helps to assess refinancing risk by comparing result with current market interest rates

Ability to pay

It is important to note that the debt yield does not look at: the cap rate used to value the property/investment; the interest rate on the commercial lender's loan; and does not factor in the amortization of the lender's loan. The only factor that the debt yield ratio considers is how large of a loan the commercial lender is advancing compared to the property's NOI. It ensures that low interest rates or rising values do not cause more leverage to be introduced at a potentially bad time in the cycle.

Refinancing risk

An example of how the debt yield helps to assess refinancing risk follows. Assume a commercial property has an annual NOI of $4,500,000, and the lender has been asked to make a loan in the amount of $60,000,000. Under this scenario, the debt yield ratio is 7.5%. This means that the lender would receive a 7.5% cash-on-

cash return on its money if it foreclosed. Currently, a Debt yield ratio of 10% is considered by most lenders the lowest number that most are willing to advance. Therefore, refinancing may not be possible without other consideration.

Loan to Cost (LTC)

Overview

Loan-to-cost at the investment/property level is a ratio used to compare the amount of the loan used to finance a project to the cost to build the project. LTC does not change based on changes in valuation. For example, if the project cost $100 million to complete and the borrower was asking for $80 million, the loan-to-cost (LTC) ratio would be 80%. The costs included in the $100 million total project cost would be land, construction materials, construction labor, professional fees, permits, landlord contributions toward lease up, and so on.

The LTC ratio helps commercial real estate lenders assess the risk of making a construction loan. The higher the LTC ratio, the higher is the risk.

Loan to Value (LTV)

Overview

Loan to value ratio at the investment/property level represents how much of a property is being financed. Higher loan to value ratios mean higher risk for the lender. For example, a $120,000 mortgage on a $200,000 investment has a loan to value ratio of 60%.

SECTION 2.07- PERFORMANCE ATTRIBUTION- BACKGROUND AND DISCUSSION

Link to Formulas

Overview

There are many ways to calculate performance attribution. Below are four of the more popular methods. Each investment manager needs to create performance attribution tools that best support the firm's decision-making process.

Performance attribution is an analysis of the performance of an investment against its benchmark. It quantifies and explains the returns of a portfolio when compared to its appropriate benchmark. It facilitates understanding of what decisions or events lead to the performance. Volume I requires that identification and comparisons of fund performance against a benchmark is reported quarterly and is presented for all periods that returns (net and gross) are presented (PR.02). NFI-ODCE is the most widely used Industry benchmark.

Equity Attribution

The sources of active returns are identified into 3 categories that attempt to explain the active decisions of a portfolio against a benchmark.

Allocation effects (sector) — the under/over weighting of a property sector to increase alpha.

Selection effect (property selection) — the active selection of an asset/property to increase alpha.

Interaction/Other effects — the combination of both allocation and selection decisions being made simultaneously. This can be imbedded into selection effects or displayed as a standalone effect.

The interaction effect is the mathematical "cross product" which measures the residual piece not accounted for under allocation and selection. The interaction effect represents the difference in sector weight multiplied by the difference in sector return.

Contribution/Absolute Attribution

Contribution Effect aims to quantify an assets and sectors contribution to the total return of the fund. It does not compare the performance against a benchmark but instead looks to how much each asset/sector contributed to the fund's total return. It should always equal the portfolio's total return. The NFI-ODCE Performance Attribution Report presents contribution/absolute attribution of the index.

APPENDICES

A1: GROSS-NET HIERARCHY ILLUSTRATIVE EXAMPLE

Illustrative Example - The Gross - Net Heirarchy [1,2,3]

Level	Level Description	TGER Alignment and Other Notes[4]	IRR (%)	Nominal Amount ($)	3/31/2015	6/30/2015	9/30/2015	12/31/2015	3/31/2016	6/30/2016	9/30/2016	12/31/2016	3/31/2017	6/30/2017	9/30/2017	12/31/2017	3/31/2018	6/30/2018	9/30/2018	12/31/2018	3/31/2019
Level 1a	Gross IRR before investment management fees and fund Costs but net of tranaction costs.	Consistent with TGER, Fund Gross IRR should be net of property-related costs and property related "fees in lieu" of costs. See TGER detailed Fee and Cost Matrix for details	16.73%	794	(500.00)	(500.00)	-	-	6.50	6.50	10.00	7.50	7.50	6.50	10.00	7.50	10.00	6.50	10.00	7.50	1,697.50
Subtract:	Cash flow Adjustments related to fund or subscription leverage or timing differences of investor capital flows vs investment capital flows	In the instance of fund leverage, Draws, Principal repayments and interest are treated as if it were equity.		4	(500.00)	(500.00)	503.50	500.00		-											
Level 1b	Gross IRR before investment management fees and fund Costs but net of tranaction costs.	Consistent with TGER, Fund Gross IRR should be net of property-related costs and property related "fees in lieu" of costs. See TGER detailed Fee and Cost Matrix for details.	19.40%	790.00			(503.50)	(500.00)	6.50	6.50	10.00	7.50	7.50	6.50	10.00	7.50	10.00	6.50	10.00	7.50	1,697.50
Subtract:	Vehicle-related costs	See TGER detailed Fee and Cost Matrix		(2.50)					(0.50)				(0.50)			(0.50)			(0.50)		(0.50)
Subtract:	Vehicle-related taxes	See TGER detailed Fee and Cost Matrix		(1.00)					(0.25)	(0.25)				(0.25)				(0.25)			
Level 2	Fund Gross IRR after deduction for fund costs but before deduction of recurring, transactional and Performance fees	IRR after the deduction of vehicle related costs.	19.30%	786.50			(503.50)	(500.00)	5.75	6.25	10.00	7.50	7.00	6.25	10.00	7.00	10.00	6.25	9.50	7.50	1,697.00
Subtract:	Investment management fees	See TGER detailed Fee and Cost Matrix Includes all ongoing and transactional based fees, regardless of whether paid in fund, directly to to manager, or through feeder vehicle. Transaction fees charged by manager above market transaction costs should be deducted here. Transaction fees in lieu of transaction costs, should be included in the Fund Gross IRR (Level 1)		(45.31)			(1.56)	(3.13)	(3.13)	(3.13)	(3.13)	(3.13)	(3.13)	(3.13)	(3.13)	(3.13)	(3.13)	(3.13)	(3.13)	(3.13)	(3.13)
Level 3	Fund Net IRR before Performance-based fees. Level 2 less ongoing and transactional investment management fees		18.06%	741.19			(505.06)	(503.13)	2.63	3.13	6.88	4.38	3.88	3.13	6.88	3.88	6.88	3.13	6.38	4.38	1,693.88
Subtract:	GP Incentive Fees and Carried Interest	Includes all performance related fees (incentive, promotes, carried interest, etc, net of rebates, regardless of whether paid in fund, directly to to manager, or through feeder vehicle.		(133.41)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	(133.41)
Level 4	Fund Net IRR. Net of transaction costs, Fund costs, Ongoing, Transactional and Performance fees		15.29%	607.77			(505.06)	(503.13)	2.63	3.13	6.88	4.38	3.88	3.13	6.88	3.88	6.88	3.13	6.38	4.38	1,560.46
Adjust	Investor specific adjustments	Filter level 5 to individual investor specific timing, costs and fees.		(508.81)			429.30	427.66	(2.23)	(2.66)	(5.84)	(3.72)	(3.29)	(2.66)	(5.84)	(3.29)	(5.84)	(2.66)	(5.42)	(3.72)	(1,318.59)
Level 5	Individual Investor Net IRR	Net of fund load, fees and promote as experienced by the individual investor.	16.39%	98.97			(75.76)	(75.47)	0.39	0.47	1.03	0.66	0.58	0.47	1.03	0.58	1.03	0.47	0.96	0.66	241.87

The illustrated example is supported by an xlsx document that is available upon request.

A2: DETAILED FEE AND COST MATRIX FOR TGER

This matrix is intended to help users when allocating fees and costs to TGER. It is not meant to be an exhaustive description of all the possible fees and costs that could be incurred by a real estate investment vehicle. Definitions for these terms can be found in the Global Definitions Database.

Included in TGER	
Vehicle-related fees charged by manager	**Vehicle-related costs charged by third parties**
Ongoing management fees	Audit costs
Fund management fee/asset management fees	Bank charges
Fee reductions/transaction offsets	Custodian costs
Fee waivers	Debt arrangement costs
Distribution fees	Other/misc. vehicle costs
Commitment fees	Placement agent costs
Redemption fee	Professional services costs
Transaction offsets	Securities handling charges
Transaction-based management fees	Staff costs (if applicable)
Wind-up fee	Vehicle administration costs
Debt arrangement (financing) fees	Vehicle formation costs
Subscription fee	Transfer agent costs
Project management fee	Dead deal costs
Property acquisition fee	
Property disposition fee	
Other manager services not related to fund management (in addition to third party service/cost)	**Other manager services not related to fund management (in lieu of third-party service/cost)**

Included in TGER	
Vehicle-related fees charged by manager	**Vehicle-related costs charged by third parties**
Performance fees	
Incentives and promotes	
Carried interest	
Other performance fees	

Excluded from TGER	
Property-related fees charged by manager	**Property-related costs charged by third parties**
Internal leasing commissions	CAPEX/ tenant improvements
Property management fee	External leasing commissions

Excluded from TGER	
Development fee	Property acquisition costs
	Property disposition costs
	Property insurance costs
	Property management costs
	Utilities, repair and maintenance costs
	Property-related taxes
	Property taxes on the owner
	Wealth taxes on real estate

Excluded from TGER	
Vehicle-related fees charged by manager	**Vehicle-related costs charged by third parties**
Fee rebates	
	Corporation tax
	Income tax
	Non-resident landlord tax
	Other taxes based on gross profit
	Net wealth tax
	Deferred taxes**
	VAT or other sales tax (only non-recoverable portion)
	Withholding tax
	Capital gain taxes
	(Transfer) taxes on real estate transactions

**In accordance with the INREV GAV and INREV NAV guidelines and for the US – the GAV and NAV described by NCREIF PREA Reporting Standards.

A3: CALCULATION OF GROSS ASSET VALUE (GAV)

Overview

GAV is the denominator for the formulas for T1 leverage percentage (PR.05) and TGER (PR.23) in Volume I. The GAV calculations serve to represent the Fund's Economic Ownership of the total gross assets of the Fund on an apples-to-apples basis.

It is important to consider that the Operating Model may include some investments that are subject to consolidation and other investments are subject to equity method accounting. Separate adjustments to the denominator need to be made on an investment-by-investment basis. Investments subject to consolidation will be adjusted using the formula for the Operating Model and those investments subject to equity method accounting will need to be adjusted using the formula for the Non-Operating Model.

Note that in some cases, information necessary to calculate GAV may not be contractually available. When that is the case, the investment manager should use estimates.

Calculations

Under the Operating Model (see Fair Value Accounting Policy Manual) GAV is calculated as:

$$Total\ balance\ sheet\ assets - Joint\ Venture\ partner's\ economic\ share\ of\ total\ assets.$$

Under the Non-operating Model, GAV is calculated as:

$$Total\ balance\ sheet\ assets + Fund\ Economic\ Share\ of\ Total\ Joint\ Venture\ liabilities + liabilities\ of\ consolidated\ entities.$$

*As used herein Joint Venture includes investments which are other than wholly owned by the Fund including, but not limited to: joint ventures, limited partnerships, investments in C-corporations, etc.

A4: FUND T1 LEVERAGE PERCENTAGE CALCULATIONS AND DISCLOSURES

Operating Model

Sample Reporting Disclosure[13]

Fund T1 Total Leverage (C)						
Fund's Economic Share of Operating Model debt						
	Economic Share (ES)					
consolidated	95%	**Apt2**	14,763	**A * ES**		*
consolidated	95%	**Hotel1**	24,273	**B * ES**		*
consolidated	92%	**Retail1**	14,168	**C * ES**		*
unconsolidated	50%	**Other**	-	**D * ES**		**
unconsolidated	50%	**Office1**	600	**E * ES**		**
					$ 53,804	
+ Subscription lines backed by commitments (drawn balance)					10,000	
+ Wholly owned property level debt						
		Apt1	10,000	**F**		*
		Indus1	4,270	**G**		*
					14,270	
					$ 78,074	

* Information contained in the consolidating balance sheet
**Information is from asset-level balance sheets

Total Gross Assets						
Total balance sheet assets					$ 421,430	
- Joint Venture partner Economic Share of total assets						
	Economic Share					
consolidated	95%	**Apt2**	(2,285)	**H*(1-ES)**		*
consolidated	95%	**Hotel1**	(3,160)	**I*(1-ES)**		*
consolidated	92%	**Retail1**	(2,632)	**J*(1-ES)**		*
					(8,077)	
+ Fund's Economic Share of total Joint Venture liabilities						
	Economic Share					
unconsolidated	50%	**Other**	500	**K*(1-ES)**		**
unconsolidated	50%	**Office1**	1800	**L*(1-ES)**		**
					2300	
					$ 415,653	

* Information contained in the consolidating balance sheet
**Information is from asset-level balance sheets

Fund T1 Leverage Percentage:			
Fund T1 Total Leverage (C)	= $ 78,074 =		**18.8%**
Total Gross Assets	$ 415,653		

Calculation Support for disclosures of T1 information under the Operating Model

[13] The information presented herein is a suggested reporting disclosure which satisfies the Reporting Standards requirements for the Tier 1 leverage elements. It is management's decision to determine the extent of disclosure necessary to satisfy the requirements.

BALANCE SHEET	Other 20X3		Office1 20X3	
Real estate investments				
Cost	25,000		68,700	
Fair value adjustment	2,000		6,300	
Fair value	27,000		75,000	
Cash	3,000		3,500	
Marketable securities	-		-	
Accrued investment income	-		-	
Prepaids and other assets	-		2,500	
TOTAL ASSETS	30,000		81,000	
Mortgage loans and notes payable at fair value				
Cost	-	D	1,200	E
Fair value adjustment	-		(200)	
Fair value	-		1,000	
Accrued real estate expenses and taxes	1,000		2,600	
Accrued incentive fees	-		-	
Other liabilities	-		-	
TOTAL LIABILITIES	1,000	K	3,600	L
XYZ	14,500		38,700	
NCI	14,500		38,700	
NET ASSETS	29,000		77,400	
	-		-	

Calculation Support for disclosures of T1 information under the Operating Model

	Fund	Apt1	Apt2	Hotel1	Indus1	Retail1	TOTAL	Eliminations	Consolidated Total
BALANCE SHEET									
Real estate investments									
Cost	129,100	24,800	22,400	38,500	6,200	24,100	245,100	(129,100)	116,000
Fair value adjustment	57,388	50	5,300	6,700	2,800	8,800	81,038	(57,388)	23,650
Fair value	186,488	24,850	27,700	45,200	9,000	32,900	326,138	(186,488)	139,650
Unconsolidated real etate joint ventures									
Cost	46,850	-	-	-	-	-	46,850		46,850
Fair value adjustment	6,350	-	-	-	-	-	6,350		6,350
Fair value	53,200	-	-	-	-	-	53,200	-	53,200
Mortgages and other loans receivable									
Cost	11,200	-	-	-	-	-	11,200		11,200
Fair value adjustment	900	-	-	-	-	-	900		900
Fair value	12,100	-	-	-	-	-	12,100	-	12,100
Other real estate investments									
Cost	18,550	-	-	-	-	-	18,550		18,550
Fair value adjustment	3,575	-	-	-	-	-	3,575		3,575
Fair value	22,125	-	-	-	-	-	22,125	-	22,125
Cash	40,635	15,000	10,000	12,000	13,000	-	90,635		90,635
Marketable securities	-	43,100	-	-	-	-	43,100		43,100
Accrued investment income	18,620	-	-	-	-	-	18,620	-	18,620
Prepaids and other assets	12,500	5,000	8,000	6,000	10,500	-	42,000		42,000
TOTAL ASSETS	345,668	87,950	45,700	63,200	32,500	32,900	607,918	(186,488)	421,430
Mortgage loans and notes payable at fair value		F	A	B	G	C			
Cost	10,000	10,000	15,540	25,550	4,270	15,400	80,760		80,760
Fair value adjustment	-	(500)	(780)	(1,280)	(210)	(770)	(3,540)		(3,540)
Fair value	10,000	9,500	14,760	24,270	4,060	14,630	77,220	-	77,220
Accrued real estate expenses and taxes	-	-	1,350	-	-	-	1,350		1,350
Accrued incentive fees	260	-	-	-	-	-	260		260
Other liabilities	500	-	-	1,900	500	-	2,900		2,900
TOTAL LIABILITIES	10,760	9,500	16,110	26,170	4,560	14,630	81,730	-	81,730
			H	I		J			
XYZ	318,162	78,450	28,111	35,179	27,940	16,809	504,650	(186,488)	318,162
NCI	16,745	-	1,480	1,852	-	1,462	21,538	-	21,538
NET ASSETS	334,908	78,450	29,590	37,030	27,940	18,270	526,188	(186,488)	339,700

Non-Operating Model

Sample Reporting Disclosure[14]

Fund T1 Total Leverage (C)

Fund's Economic Share of NonOperating Model debt

	Economic Share (ES)				
	95%	**Apt2**	14,763	**a x ES**	*
	95%	**Hotel1**	24,273	**b x ES**	*
	92%	**Retail1**	14,168	**c x ES**	*
	50%	**Other**	-	**d x ES**	*
	50%	**Office1**	600	**e x ES**	*
				$ 53,804	
+	Subscription lines backed by commitments (drawn balance)			10,000	
+	Wholly owned property level debt				
		Apt1	10,000	**f**	*
		Indus1	4,270	**g**	*
				14,270	
				$ 78,074	

*Information is from asset-level balance sheets

Total Gross Assets

	Total balance sheet assets			$ 345,668	
+	Fund's Economic Share of total Joint Venture liabilities				
	Economic Share (ES)				
	95%	**Apt2**	15,305	**h x ES**	*
	95%	**Hotel1**	24,862	**I x ES**	*
	92%	**Retail1**	13,460	**j x ES**	*
	50%	**Other**	500	**k x ES**	*
	50%	**Office1**	1,800	**l x ES**	*
+	Fund's Economic Share of total liabilities - wholly owned properties				
	100%	**Apt1**	9,500	**m**	*
	100%	**Indus1**	4,560	**n**	*
				69,986	
				$ 415,654	

*Information is from asset-level balance sheets

Fund T1 Leverage Percentage:

Fund T1 Total Leverage (C)	= $ 78,074 =		**18.8%**
Total Gross Assets	$ 415,654		

[14] The information presented herein is a suggested reporting disclosure which satisfies the Reporting Standards requirements for the Tier 1 leverage elements. It is management's decision to determine the extent of disclosure necessary to satisfy the requirements.

Calculation Support for disclosures of T1 information under the Non-Operating Model

BALANCE SHEET	APARTMENT 2 20X3	HOTEL 1 20X3	Retail1 20X3	Other 20X3	Office1 20X3	Apt1 20X3	Indus1 20X3
Real estate investments							
Cost	22,400	38,500	24,100	25,000	68,700	24,800	6,200
Fair value adjustment	5,300	6,700	8,800	2,000	6,300	50	2,800
Fair value	27,700	45,200	32,900	27,000	75,000	24,850	9,000
Cash	10,000	12,000	-	3,000	3,500	15,000	13,000
Marketable securities	-	-	-	-	-	43,100	-
Accrued investment income	-	-	-	-	-	-	-
Prepaids and other assets	8,000	6,000	-	-	2,500	5,000	10,500
TOTAL ASSETS	45,700	63,200	32,900	30,000	81,000	87,950	32,500
Mortgage loans and notes payable at fair value							
Cost	15,540 a	25,550 b	15,400 c	- d	1,200 e	10,000 f	4,270 g
Fair value adjustment	(780)	(1,280)	(770)	-	(200)	(500)	(210)
Fair value	14,760	24,270	14,630	-	1,000	9,500	4,060
Accrued real estate expenses and taxes	1,350	-	-	1,000	2,600	-	-
Accrued incentive fees	-	-	-	-	-	-	-
Other liabilities	-	1,900	-	-	-	-	500
TOTAL LIABILITIES	16,110 h	26,170 i	14,630 j	1,000 k	3,600 l	9,500 m	4,560 n
XYZ	28,111	35,179	16,809	14,500	38,700	78,450	27,940
NCI	1,480	1,852	1,462	14,500	38,700		
NET ASSETS	29,590	37,030	18,270	29,000	77,400	78,450	27,940
	-	-	-	-	-	-	-

A5: SAMPLE PERFORMANCE MEASUREMENT DISCLOSURES

These disclosures are intended to be used in performance presentations for U.S., institutional real estate assets. Disclosures, like the one listed below, would typically accompany any performance presentation that is made in a client report. These disclosures are intended for illustrative purposes only and are not meant to reflect the only correct presentation of these items. Disclosures relating to risk measurement will be added at a future date.

Property Level Disclosures

1. Unleveraged property level performance return [EXAMPLE]

- Performance results are before the effect of leverage and calculated using the Property-Level return methodology outlined in the Reporting Standards Performance and Risk Manual.
- Performance results are before deduction of advisor asset management and performance incentive fees and after deduction of advisor acquisition fees.
- Performance results are before the effect of operating partner/joint venture partner fees and distribution waterfalls. (Only use if applicable.)
- Performance results do not include cash and cash equivalents, related interest income and other non-property related income and expenses.
- The inputs to the performance return calculation are calculated in accordance with the Reporting Standards. The Net Operating Income component of the return is based on accrual recognition of earned income. Capital expenditures, tenant improvements, and lease commissions are capitalized and included in the cost of the property; are not amortized; and are reconciled through the valuation process and reflected in the capital return (appreciation) component.
- Annual performance returns are time-weighted, calculated by geometrically linking quarterly returns. Income and capital returns may not equal total returns due to compounding effects of linking the quarterly returns.
- The time-weighted return calculations begin on the acquisition date for each property and end on the disposition date. Partial periods are not dropped.

If a property level internal rate of return ("IRR") is presented, a disclosure describing the calculation methodology is needed.

2. Leveraged property level performance return [EXAMPLE]

Same as above except for the first disclosure.

- Performance results are after the effect of leverage and calculated using the Property-Level return methodology outlined in the Reporting Standards Performance and Risk Manual

3. Property level valuation policy [EXAMPLE]

If presenting performance on a stand-alone basis (not in conjunction with financial statements) a valuation policy should be disclosed. Otherwise, reference can be made to the accompanying financial statement footnotes.

- Real property assets are internally valued quarterly by the advisor and appraised no less frequently than every three years by an independent member of the Appraisal Institute.
- Both the internal and external property valuations rely primarily on the application of market discount rates to future projections of unleveraged cash flows and capitalized terminal values over the expected holding period of each property.
- Property mortgages, notes, and loans with maturities greater than one year from the date of the balance sheet are marked to market using prevailing interest rates for comparable property loans. Loan repayment fees, if any, are considered in the projected year of sale.

4. Property level benchmark disclosure [EXAMPLE]

- The benchmark for this group is the National Council of Real Estate Investment Fiduciaries ("NCREIF") Property Index ("NPI").
- The NPI benchmark has been taken from published sources.
- The NPI is an unleveraged, before-fee index of operating properties and, includes various operating real estate property types, excludes cash and other non-property related assets and liabilities, income, and expenses.
- The calculation methodology for the NPI is consistent with the calculation methodology for all properties presented herein.
- The NPI data, once aggregated, may not be comparable to the performance of the properties presented herein due to current and historical differences in portfolio composition by asset size, geographic location, and property type.

5. Investment level disclosures

Investment level represents a discrete asset or group of assets held for income, appreciation, or both and tracked separately. Investment level performance is typically presented at the fund level. Please refer to the disclosure section below.

Fund Level Disclosures

1. Unleveraged fund level performance return [EXAMPLE]

Hypothetical, unleveraged fund returns are often presented as supplemental reporting. To calculate these returns, adjustments to the numerator are made which remove interest expense and appreciation related to the value of the debt. Adjustments to the denominator are made which increase contributions and distributions by the amount of debt placed, loan fees incurred, interest expensed, and debt repaid. The disclosures follow those described in the disclosure section below, except for the first bullet point, which is replaced with a description of the assumptions used to de-lever the portfolio.

2. Leveraged fund level performance return [EXAMPLE]

- Performance results are presented net of leverage.
- Performance results include cash and cash equivalents and related interest income.
- Net returns are after investment management fees and performance incentive fees. Annual investment management fees are 1% of invested capital. No incentive fees have been earned.
- Income return is based on accrual recognition of earned income in accordance with U.S. GAAP.
- Capital expenditures, tenant improvements, and lease commissions are capitalized and included in the cost of the property; are not amortized; and are reconciled through the valuation process and reflected in the capital return component.
- Performance results are calculated on an asset-weighted average basis using beginning of period values adjusted for time-weighted external cash flows.
- Annual returns are time-weighted rates of return calculated by linking quarterly returns. Income and capital returns may not equal total returns due to compounding effects of linking quarterly returns.
- The time-weighted return calculations begin on the date of the portfolio's first external cash flow and end on the date of the last external cash flow. Partial periods are not dropped.
- The annualized internal rate of return (IRR) is calculated using monthly cash flows. The terminal value utilized in this calculation is equal to the net asset value as of the reporting date. Before-fee cash flows are derived by adding accrued investment management fees and cash basis incentive fees to after-fee cash flows.

In some cases, a fund may commence operations and incur income and/or expense prior to the initial cash contribution from the investor(s). For example: A commingled fund which utilizes a subscription line of credit to fund operations and purchase properties prior to the first capital call. When this occurs, a disclosure is needed to explain how the activity related to the period before the initial capitalization is treated in the return calculation. Two examples follow.

- The closing date of the fund was December 15, 200XX. The first capital call occurred on May 4, 20XX. For performance return purposes, income and expense incurred from the date of closing through May 3, 20XX has been allocated to the numerator of the June 30 return calculation.
- The closing date of the fund was December 15, 20XX. The first capital call occurred on May 4, 20XX. For performance return purposes, income and expense incurred from the date of closing through May 3, 20XX has been allocated to the denominator of the June 30 return calculation.

3. Fund level valuation policy [EXAMPLE]

If presenting performance on a stand-alone basis (not in conjunction with financial statements) a valuation policy disclosure should be provided. Otherwise, reference can be made to the accompanying financial statement footnotes.

- Assets are valued quarterly by the Company and appraised no less frequently than annually by an independent member of the Appraisal Institute.

- Both the internal and external property valuations rely primarily on the application of market discount rates to future projections of unleveraged cash flows and capitalized terminal values over the expected holding period of each property.
- Property mortgages, notes, and loans are marked to market using prevailing interest rates for comparable property loans if the terms of existing loans preclude the immediate repayment of such loans. Loan repayment fees, if any, are considered in the projected year of sale.
- Cash equivalents are stated at fair value, which is equivalent to cost. All other assets and liabilities are stated at cost, which approximates fair value, since these are the amounts at which they are expected to be realized or liquidated.

4. Fund level benchmark disclosure [EXAMPLE]

- The benchmark for this group is the National Council of Real Estate Investment Fiduciaries ("NCREIF") Fund Index Open-Ended Diversified Core Equity ("NFI-ODCE").
- The NFI-ODCE benchmark has been taken from published sources.
- The NFI-ODCE is a pre and post-fee index of open-ended funds with lower risk investment strategies, utilizing low leverage and equity ownership of stable U.S. operating properties. The index is capitalization-weighted, based on each fund's net invested capital.
- The NFI-ODCE data, once aggregated, may not be comparable to the performance of the fund presented herein due to current and historical differences in portfolio composition by asset size, geographic location, property type and degree of leverage.

A6: PERFORMANCE AND RISK MEASUREMENT INFORMATION ELEMENTS[15]

Information providers should maintain the following information as these elements are commonly used in the various formulas:

Property level information

- Net Operating Income
- Net Cash Flow
- Debt Service (Interest)
- Debt Service (Principal)
- Additional Loan Principal Pay-downs
- New Loan Proceeds
- Capital Improvements
- Net Sales Proceeds (Partial Sales)
- Gross Fair Value at Beginning and End of Period
- Equity Value at Beginning and End of Period
- Outstanding Debt Balance-cost and fair value
- Estimate of Current Cost to Sell Property
- Income Return (Before-fee) — Quarterly
- Appreciation Return (Before-fee) — Quarterly
- Total Return (Before-fee) — Quarterly
- Internal Rate of Return — Since Inception
- Historical Component Returns (Before-fee) — 1-Yr, 3-Yr, 5-Yr, 10-Yr, and other 5-yr increments
- Distributed and Retained Income Returns

Investment and fund level information

- Net Investment Income
- Fair Value at Beginning and End of Period
- Capital Contributions — Amounts and Dates
- Capital Distributions and Redemptions — Amounts and Dates
- Capital Distributions Resulting from Financing and Investing Activities — Amounts and Dates
- Investment Management Fees
- Estimate of Current Costs to Sell Investments
- Weighted Average Equity
- Capital Appreciation

[15] The list of performance and risk measurement information elements is intended to identify specific return and data components that should be collected and retained by information providers. This list is not exhaustive and is not intended to define all information that is necessary to manage the investments or comply with all regulatory requirements.

- Paid in Capital
- Income Return (Before and After-fee) — Quarterly
- Appreciation Return (Before and After-fee) — Quarterly
- Total Return (Before and After-fee) — Quarterly
- Internal Rate of Return — Since Inception
- Historical Component Returns (Before and After-fee) — 1-Yr, 3-Yr, 5-Yr, 10-Yr, and other 5-yr increments
- Distributed and Retained Income Returns
- Distribution and Price Change Returns

A7: SAMPLE PRESENTATIONS

Sample Fund Level Presentation for Client Reporting

XYZ FUND, L.P.

Historical Performance, 20XX-20XX — **Dollar Amounts in Thousands**

	Year End		Before Fee Returns			NFI-ODCE	After Fee Returns			Multiples			
Year	Net Assets	Percent Leveraged	Investment Income (Loss)	Appreciation (Depreciation)	Total Gross Returns	Index Benchmark	Investment Income (Loss)	Appreciation (Depreciation)	Total Net Returns	Investment Multiple (TVPI)	Realization Multiple (DPI)	PIC	RVPI
20XX	$ 125,213	56 %	6.15 %	3.00	9.15 %	13.06 %	5.15 %	3.00 %	8.15 %	1.03	-	0.24	1.03
20XX	449,809	37	6.07	7.00	13.07	21.39	5.07	7.00	12.07	1.24	-	0.73	1.24
20XX	562,550	28	6.45	8.00	14.45	16.32	5.45	8.00	13.45	1.44	0.19	0.90	1.25
20XX	532,547	19	6.19	8.00	14.19	15.97	5.19	8.00	13.19	1.68	0.61	1.00	1.07
20XX	265,460	16	5.45	(9.00)	(3.55)	(10.01)	4.45	(9.00)	(4.55)	1.44	0.91	1.00	0.53
Annualized Time Weighted Returns Since Inception (January 1, 20XX)			6.05	3.19	9.24	10.75	5.06	3.19	8.24				
Annualized Internal Rate of Return Since Inception (January 1, 20XX)					9.45 %				8.45 %				

TVPI = Total Value to Paid-In Capital
DPI = Distributed Capital to Paid-In Capital
PIC = Paid-In Capital to Committed Capital
RVPI = Residual Value to Paid-In Capital

Notes:

1. Returns presented are net of leverage.
2. Performance results include cash and cash equivalents and related interest income.
3. Net returns are after investment management fees and performance incentive fees. Annual investment management fees are 1% of invested capital. No incentive fees have been earned.
4. The income return is based on accrual recognition of earned income.
5. Capital expenditures, tenant improvements and lease commissions are capitalized and included in the cost of the property; are not amortized; and are reconciled through the valuation process and and reflected in the capital return component.
6. Performance results are calculated on an asset-weighted average basis using beginning of period values, adjusted for time-weighted external cash flows.
7. Annual returns are time-weighted rates of return calculated by linking quarterly returns. Income and capital returns may not equal total returns due to compounding effects of linking quarterly returns.
8. The time-weighted return calculations begin on the date of the portfolio's first external cash flow and end on the date of the last external cash flow. Partial periods are not dropped.
9. The annualized internal rate of return ("IRR") is calculated using monthly cash flows. The terminal value utilized in this calculation is equal to the net asset value as of December 31, 20XX.
10. Assets are valued quarterly by the General Partner and appraised annually by an independent member of the Appraisal Institute.
11. Additional information, including the Fund's valuation policy, capitalization policy regarding capital expenditures, tenant improvements, lease commissions and information related to investment management and incentive fees is presented in the notes accompanying the financial statements.
12. The National Council of Real Estate Investment Fiduciaries ("NCREIF") Fund Index Open-Ended Diversified Core Equity ("NFI-ODCE") has been taken from published sources. The NFI-ODCE is a before-fee index of open-ended funds with lower risk investment strategies, utilizing low leverage and equity ownership of stable U.S. operating properties. The Index is capitalization-weighted, based on each fund's net invested capital.
13. The NFI-ODCE data, once aggregated, may not be comparable to the performance of the XYZ Fund due to current and historical differences in portfolio composition by asset size, geographic location,

Sample Property Level Presentation for Client Reporting

ABC SEPARATE ACCOUNT
UNLEVERED PROPERTY PERFORMANCE RETURNS

Periods Ended June 30, 20XX

	ABC Account Before Fee Returns			NCREIF Property Index		
	Operating Income %	Appreciation (Depreciation) %	Total Returns %	Operating Income %	Appreciation (Depreciation) %	Total Returns %
20XX						
First Quarter	1.62	(2.56)	(.94)	1.37	(8.70)	(7.33)
Second Quarter	1.74	(3.28)	(1.54)	1.50	(5.20)	(6.70)
Rolling						
One Year	6.19	(19.60)	(14.35)	5.49	(24.04)	(19.56)
Three Year	5.42	(3.80)	1.48	5.56	(4.39)	.99
Five Year	5.60	3.01	8.75	6.05	1.50	7.61
Ten Year	7.54	1.65	9.30	7.18	1.26	8.50
Annualized Time-Weighted Return Since Inception (9/9/XX)	8.29	1.86	10.28	7.75	1.60	9.44
Annualized Internal Rate of Return Since Inception			9.15			n/a

Notes:

1. Performance results are before the effect of leverage and calculated using the property level return methodology outlined in the Real Estate Information Standards ("REIS") Performance Measurement Resource Manual.
2. Performance results are before deduction of advisor asset management and performance incentive fees and after deduction of advisor acquisition fees.
3. Performance results do not include cash and cash equivalents, related interest income and other non-property related income and expenses.
4. The inputs to the performance return calculation are calculated in accordance with the Real Estate Information Standards ("REIS"). The operating income component of the return is based on accrual recognition of earned income. Capitalized expenditures, tenant improvements and lease commissions are capitalized and included in the cost of the property; are not amortized; and are reconciled through the valuation process and reflected in the appreciation/(depreciation) component.
5. Annualized performance returns are time-weighted, calculated by geometrically linking quarterly returns. Income and appreciation/(depreciation) returns may not equal total returns due to compounding effects of linking the quarterly returns.
6. The time-weighted return calculations begin on the acquisition date for each property and end on the disposition date. Partial periods are not dro
7. The annualized internal rate of return ("IRR") is calculated assuming that net cash flow is distributed quarterly. For purposes of this calculation, net cash flow is defined as operating income minus capitalized costs. The terminal value utilized in this calculation is equal to the fair value of the properties as of June 30, 2009.
8. Additional information, including the ABC Account's valuation policy, is presented in the notes accompanying the financial statements.
9. Capital expenditures, tenant improvements and lease commissions are capitalized and included in the cost of the property; are not amortized; and are reconciled through the valuation process and for the NPI is consistent with the time-weighted calculation methodology for all properties presented herein.
10. Performance results are calculated on an asset-weighted average basis using beginning of period values, adjusted for time-weighted external cash flows.
11. Annual returns are time-weighted rates of return calculated by linking quarterly returns. Income and capital returns may not equal total returns due to compounding effects of linking quarterly returns.

Sample Fund Level Presentation for IRR Reporting

Fund XYZ

Since Inception Internal Rate of Return (IRR)

	Inception to date
Gross of Fee [1], [2]	19.30%
Net of Fee [3]	15.29%

[1]Gross IRR

The Gross Fund IRR has been calculated using the level 1a Fund IRR methodology described by the NCREIF PREA Reporting Standards. Gross returns are presented net of transaction costs but do not reflect the deduction of investment management fees or fund costs. Results are presented gross (before the impact) of the subscription line but net (after the impact) of all property leverage.

[2]Subscription Line

The fund utilizes a subscription line of credit. In January 2015 the fund utilized a subscription line of credit to purchase it's first investment. The first capital call from investors was September 2015.

[3]Net IRR

The Net Fund IRR has been calculated using the level 4 Fund IRR methodology described by the NCREIF PREA Reporting Standards. The Net IRR reflects the deduction of all fund costs, transaction costs, and investment management fees. Carried interest to the general partner and its affiliates has been accrued based on the hypothetical liquidation value of the fund at fair value. Limited partners pay ongoing asset management fees ranging between 0 and 150 basis points. Carried interest is charged to investors based on the waterfall hurdle and range between 0 and 200 basis points based on the hypothetical liquidation of the fund at fair value.

HANDBOOK VOLUME II: MANUALS



NCREIF PREA

Reporting Standards

Updated | December 16, 2020

VALUATION MANUAL

This NCREIF PREA Reporting Standards Manual has been developed by NCREIF's Valuation Committee. This manual has been endorsed and approved by the Reporting Standards Council.

NCREIF pension real estate association PREA

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PREFACE

The NCREIF PREA Reporting Standards provide general guidelines for fair value reporting to investors in the institutional real estate investment industry. Although these standards are not represented as being comprehensive, they are intended to reference and supplement established standards issued by other professional entities including but not limited to generally accepted fair value based accounting principles (FV-GAAP) established by the Financial Accounting Standards Board (FASB), the Global Investment Performance Standards (GIPS®) promulgated by the CFA Institute and the Uniform Standards of Professional Appraisal Practice (USPAP) published by the Appraisal Foundation. As such, this Valuation Manual offers general, principles-based, guidance particularly relevant to the institutional real estate investment industry. Topics such as unit of account, the treatment of selling expenses and accrued interest, as described under established accounting standards, should be considered in applying the guidance in this manual for accounting and reporting purposes.

NCREIF PREA Reporting Standards recognize that USPAP as well as The International Valuation Standards (IVS) published by the International Valuation Standards Council contain critical valuation protocol to be followed when valuing US and foreign investments, respectively. It is also noted that additional important and comprehensive valuation guidance is readily available through publications provided by The Appraisal Institute and The Royal Institution of Chartered Surveyors among other established professional organizations.

The intended purpose of this Valuation Manual is to provide clarification and guidance on valuation issues and policies that are specific and unique to the institutional real estate investment industry. As such, no reproduction of established guidelines set forth by other governing bodies or professional appraisal organizations will be included; however, such guidelines or reporting and ethical requirements may be referenced when applicable. Accordingly, this manual will be reviewed and considered for update annually to ensure it comprises the most current practices reflective of emerging valuation issues and methodologies as well as changes in authoritative guidance.

For presentation purposes, the Valuation Manual is divided into two primary sections. The first section provides an overview of generally accepted valuation practices for the institutional real estate investment industry while the second contains a bibliography of industry foundational materials and NCREIF approved publications offering additional guidance regarding relevant valuation topics.

GENERALLY ACCEPTED PRACTICES

Market Value and Fair Value

While the many definitions that exist for Market Value and Fair Value vary in terms of depth, in principle for financial reporting purposes the definitions are deemed to be synonymous. The full FASB guidance on fair value, when viewed in its entirety and with respect to investment reporting, aligns with common market value principles. However, in the rare instances where the principles of fair value and market value result in measurable differences, the appraisal should provide clear documentation and disclosures of the variance. Below are the most commonly cited definitions of fair value and market value:

Fair Value is "the Price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date."[1]

Market Value is "the most probable price that a property should bring in a competitive and open market under all conditions requisite to a fair sale, the buyer and seller each acting prudently and knowledgeably, and assuming the price is not affected by undue stimulus. Implicit in this definition is the consummation of a sale as of a specified date and the passing of title from seller to buyer under conditions whereby:

1. Buyer and seller are typically motivated.
2. Both parties are well informed or well advised and each acting in what they consider their own best interests.
3. A reasonable time is allowed for exposure in the open market.
4. Payment is made in terms of currency or in terms of financial arrangements comparable thereto.
5. The price represents the normal consideration for the property sold unaffected by special or creative financing or sales concessions granted by anyone associated with the sale."[2]

Frequency and Timing of Valuations

The timing and frequency of real estate valuations are dependent upon and should correlate with several factors including timing and frequency of financial reporting, performance measurement (industry benchmarking), redemption of fund shares, and purchase and/or sale of an asset. The overriding principal is to ensure that the timing at which parties rely upon valuations corresponds with the date for which those value estimates are applicable.

At a minimum, funds should follow the NCREIF PREA Reporting Standards with respect to valuation policies.

While some funds record and report new acquisitions at the purchase price for the valuation cycle during which the asset is acquired, others utilize the current appraisal obtained as an essential element of the

[1] FASB Accounting Standards Codification®, Fair Value Measurements and Disclosure (Topic 820)
[2] Federal Register, Vol. 165, August 24, 1990 "Rules and Regulations," 34.42, as amended April 9, 1992 and June 7, 1994.

purchase process. In either case, funds typically commence valuation at acquisition or at the next scheduled valuation interval.

Independence and Internal Valuations

Appraisals and valuation analysis supporting fund net asset value (NAV) must be calculated in an objective and competent manner. The goal is to create a process that includes an appropriate level of independence, is completed by qualified professionals, and results in an unbiased conclusion. The preceding can be accomplished by internal staff, third-party service providers and appraisers, or a combination thereof.

Valuations prepared by independent appraisers must be performed in conformance with applicable laws and regulations by properly credentialed professionals. Valuations prepared by internal staff should include appropriate research and analysis to result in a credible conclusion. These internal valuations should be prepared in a transparent environment, supervised by competent credentialed professionals, and documented in a manner sufficient to permit an audit of results whereby steps leading to specific valuation outcomes can be verified.

Internal valuation analysis and documentation can be prepared by the relevant business unit; however, reporting, approval, and oversight responsibilities should be managed by individuals or committees with seniority that shall not be subject to influence for the purpose of affecting compensation that is directly dependent on asset values. Both internal and/or external research resources should also be regularly consulted as a further means of promoting independence in the valuation process.

Engagement Procedures

Engagement procedures encompass guidelines for external appraiser selection, rotation, and contracting. The process includes development and maintenance of a list of acceptable valuation service providers, procedures for soliciting and receiving bid proposals, negotiating contracts, and creating engagement letters. These functions are typically performed by an internal valuation department/committee or by independent external consultants with oversight provided by the fund or valuation department.

An acceptable appraisal service provider list should consist of independent valuation professionals that are competent and appropriately credentialed. Appraisers should be pre-qualified based upon competence as established through interview, references, work product review, and professional certification, license, or other credentials that identify the competence of the individual.

New assignments should be engaged with adequate lead time for appraisers, reviewers and those providing property operating and other descriptive information. Further, requests for proposal (RFP) should adequately identify and describe the investment and the valuation services sought. With respect to such services sought, the engagement letter should specify that appraisals submitted for assets located in the United States must comply with USPAP and appraisals of assets situated outside the United States should comply with IVS. Services requested must include a detailed Scope of Work to ensure that instructions in the

engagement letter mirror the Scope of Work ultimately defined in the appraisal report. Following this procedure reduces confusion in the appraisal review or subsequent audit process.

Assignments should be awarded based primarily on appraiser competency with respect to property type and/or geographic expertise, responsiveness, and timely delivery. The RFP, together with the response(s) thereto as well as appraiser selection, should be documented so the fund can demonstrate compliance to its investors and auditors.

Engagement letters or contracts should be transmitted to selected appraisers with sufficient detail regarding acceptance requirements, services sought, and agreed upon contract terms. The letter must also establish the parties to the contract, date of value, due date, definition of value requested, interest to be appraised, intended use, intended users, valuation methods to be utilized, delivery and review protocols, service fees, cash flow modeling requirements, and compliance with fund-specific valuation policies and procedures.

Appraiser rotation on a regular schedule is recommended for all fund types. The benefits of rolling assignments are significant from an independence perspective; accordingly, the clear majority of real estate funds engage external appraisers for no more than a three-year period on the same asset, regardless of valuation frequency of delivery.

All valuations should be reviewed to confirm the reasonableness of conclusions including administration, benchmarking and analysis of valuation trends and results. The adoption of a workflow management system to facilitate and fully document the process is also recommended, especially in the case of larger funds with numerous assets.

Data Transmission and Storage

A policy of data transmission for all valuation documents and related communication should be established. This would include the flow of source data, submission and storage of draft and final appraisal as well as review files, and meaningful correspondence between all participants. It is typical for funds to use a data management system operated and maintained internally or by qualified external consultants. Systems should typically allow for online and interactive appraisal management with users having the ability to upload and view valuation reports and metrics and interact via a review interface. Use of technology ensures process and content transparency particularly through the creation, storage, and retention of documents. Sophisticated data management systems are typically most appropriate for larger funds, whereas smaller funds with fewer assets may create a system that consists of no more than an organized set of documentation procedures.

An integral role of the data management system is to provide ease of access and use, consistency, accountability, and auditability. Systems should be used to facilitate communication throughout the appraisal process, including managing the information flow from property contacts to the appraiser.

The transmission of draft appraisal files should occur within the data management system; however, such draft report files may eventually be purged from the system after review, submission, and acceptance of final

appraisal files. A review document should accompany appraisal files in their permanent storage location within the system to provide an auditable account of comments and changes from the draft to final appraisal report.

Preparation for Audits and Regulatory Examinations

A thorough audit scope necessitates the need for several procedural, communications, and document-driven protocols that ensure appropriate transparency and independence in the valuation process. This is the case whether valuations are prepared internally or by external third-party appraisers. Moreover, the flow of information to auditors will typically be facilitated by an internal valuation department or independent external valuation consultants.

Auditors must be able to obtain and evaluate audit evidence to opine on fair value financial statements; therefore, documentation should be auditable to a level that reasonably evidences the appraisal, appraisal review, management oversight, acceptance of appraised value, and compliance with the fund's written policies and procedures.

Effective management controls over the process used to determine fair value measurements should include oversight regarding primary asset- and market-related data, accuracy of analysis and conclusions, and the impartiality of those providing valuations. Funds should provide appraisal reports and supporting documentation to a level that a party not familiar with the asset will understand the rationale for the concluded value. Appraisal reviews should also demonstrate the assumptions, methodology, or data questioned and/or changed as a result of the review process.

Property Level Debt Valuation

The following is intended to summarize common appraisal perspectives and principles for the valuation of property-level debt as a liability, i.e., when the debt encumbers an owned asset.

When measuring the fair value of property level debt the following principles should be considered[3]:

- Property level debt must be measured from the perspective of a market participant.
- Market participants include those with whom the reporting entity would likely transact within an open market.
- A borrower's legal interest in a mortgage does not trade to other borrowers outside of a real estate transaction.
- Buyers of real estate analyze the impact of leverage (new or assumed) on the property cash flows to the net equity position.

[3] For funds where the units of account are the total asset (the property) and separately the debt liability (the mortgage debt), the fair value of debt would be estimated using current lending parameters, established giving consideration to market participant (lender, in this case) supported assumptions, in establishing those lending parameters.

- The Income Approach is the primary approach used to price the impact of loans whereby contractual debt service payments are discounted at a market interest rate.
- The term of the cash flow should represent what is expected to most likely occur over the life of the note including consideration of open prepayment periods and extension options.
- Determining an appropriate market interest rate is highly dependent on the observation of market participants. Market interest rates should reflect prevailing lending rates used by market participants to analyze the impact of debt on a real estate transaction including consideration of property type, market, loan to value ratio, debt service coverage, and property economics.
- Strict mathematical calculations may not reflect market behavior. Fair value measurements must reflect the price that is expected to be paid by a market participant to assume the debt and should be tested against market evidence.
- Variable rate debt, construction loans, and unsecured fund level debt should follow the same practices and procedures for estimating fair value as those followed for a reporting entity's fixed rate debt, including consideration of prepayment terms and market participant behavior for pricing similar loans.

Portfolio Valuation

The decision regarding whether a group of assets should be analyzed and valued individually or as part of a portfolio depends on the characteristics and attributes of the investment and whether that investment is optimally operated and managed as a single unit. This "unit of value" determination must be based on market norms with consideration given to the highest and best use analysis which would include the buyer pool for the individual assets versus the group. Depending on the scope of work, further consideration may also be given to viewing the asset independently and as part of a portfolio to determine the amount of the portfolio premium, if any. Depending on the most likely buyer of the property, it is also theoretically possible that one would apply a portfolio discount if the sum of the assumed individual property sales is higher than the estimate under a portfolio sale scenario.

The determination of a portfolio value should be based on market evidence that has occurred as close to the applicable date of value as possible. Items of significant impact include differences to rates of return for bulk acquisitions, economies of scope and scale in operations, and trends in market demand.

Once a portfolio premium has been determined, there are several acceptable ways it can be allocated across the individual assets. The premium can be allocated on a pro-rata basis based on the market value estimate of each individual asset or the net operating income of each individual asset. The premium can also be determined and applied based on a difference in capitalization rates or rates of return that are applied in the valuation of the individual assets that comprise the portfolio. If included in the scope of work, the allocation of the premium can be determined by the external appraiser. Depending on the accounting for the portfolio, fund management may determine the allocation internally during each valuation cycle or only on an as needed basis.

Daily Valuation

Private real estate funds that allow investors to buy or sell units (shares) daily typically employ an enhanced valuation protocol relative to the quarterly process commonly used for reporting asset values in direct real estate funds. These enhancements are described in the following paragraphs and procedures should be constructed that adhere to the following principals established by the Defined Contribution Real Estate Council (DCREC):

- Third-party appraisal of each asset, performed at least annually
- Objectivity of valuation process
- The valuation process should incorporate a procedure to recognize material events on a timely basis
- Current accepted daily valuation practices
- Transparent valuation policies and procedures that are verifiable and consistently applied
- Information technology infrastructure
- Property level debt valuation
- Valuation of partnership interests
- Valuation of other assets and liabilities
- Clear internal roles and accountability in valuation process

The daily valuation process, therefore, encompasses the Fund's appraisal process used for reporting and then implements a set of policies, procedures, and systems that allow for a timelier recognition of events (market and/or property specific) that are estimated to have an immediate impact on the net asset value of the fund. Daily valuation processes may differ based on the characteristics of the daily fund being measured. The process should include monitoring and incorporating real-time information into the daily appreciation estimate and/or rules to account for specific material events or series of events that require immediate consideration.

Daily valuation policy enhancements can vary for reasons such as the type of fund (direct or indirect, i.e. fund of funds), number of assets, characteristics of properties, quarterly appraisal processes in place, internal computer systems, internal staffing, external consultant use, etc. The immediate need for information requires communication among internal business units (valuation, asset management, portfolio management, accounting, capital markets, etc.) working together for the collective purpose of ensuring the timely flow of information. At a minimum, a daily valuation process should contain an independent quarterly appraisal process with a system that allows for property or market level events to be quickly discovered and analyzed for determining timely changes in the fund's net asset value.

Written detailed policies and procedures are critical in implementing a daily valuation process and should establish the specific roles and responsibilities of those entities or individuals contributing to the process. At a minimum, this should include:

- Identification and governance of each party or parties responsible for approving, amending, and enforcing the policy, process, and procedures;

- Establishment and documentation of daily monitoring and reporting activity associated with estimating fund income and appreciation, including the determination as to whether or not to recognize it incrementally; and,
- The agreed-to methodology for daily valuations.

Depending on the documented methodology and application, the following steps should be specifically addressed in written policies and procedures:

- Details regarding scheduled communication with fund portfolio representatives or other named knowledgeable parties to monitor activity taking place within the fund;
- Process for consideration of macro-level changes occurring in the capital and real estate markets;
- Specific procedures for monitoring fund as well as asset level valuation, i.e., definition and inclusion of changes in property operations as well as handling of capital costs;
- Schedule for accepting and reporting daily value changes;
- Calculations used for recognition of the dividend accrual and its payment; and,
- Calculations used for individual property effective ownership percentages and debt valuations required to arrive at NAV.

Examples of fund changes and/or property level operations that could trigger an adjustment may include, but are not limited to:

- Exposure to tenants that experience significant events at the corporate level, i.e. bankruptcy, mergers, major credit rating changes, etc.;
- Concentration of credit risk, i.e. exposure to a partner/developer that has a significant event;
- Concentration of net asset value in geographic locations where major events occur regarding major employers, utility costs, transportation, etc.;
- Capital expenditures;
- Leasing activity and associated commissions and tenant improvements;
- Changes in income or expense that would impact a property class or type;
- Material damage resulting from fire, weather, earthquake or other incident, etc., net of ay offset from insurance proceeds;
- Acquisitions or dispositions
- Debt valuations, both at property and entity level; and,
- Fund level expenses.

In addition, cumulative effects of non-material issues at asset level must be tracked on a timely basis.

Valuation of Partnership/Partial Interests

Hypothetical sale methodology is typically employed in valuing real estate partnership interests for fair value financial reporting purposes. This methodology assumes a sale of the real estate asset and consideration of debt and any other assets or liabilities as of the measurement date and reflects any partnership/partial interests. This is commonly referred to as the "waterfall" analysis or equity reconciliation. The general steps to the waterfall process are as follows:

- Step 1: Determine of the fair value of the underlying real estate;
- Step 2: Reduce the value of the underlying real estate to account for debt and any other assets or liabilities;
- Step 3: Calculate any IRR look-back preferences based upon the historical or scheduled cash distributions of the partnership; and,
- Step 4: Allocate the value to the various partnership interests.

This methodology is best employed when the partners' interests are aligned in both management and operation of the asset.

Although less frequently employed, valuation of the fund's partial interest may be undertaken in instances where there is a realizable and measurable value difference to transferring one partner's partial interest versus assuming the economic impact if the whole asset is transferred due to contractual rights and provisions and/or market influences. When valuing the transfer of only the partial interest, consideration of factors that may have an impact on a partial fair value conclusion include, but are not limited to: controlling interest provisions, provisions for decision-making, terms of liquidity, marketability, purchase options, cash flow sweeps, asset class, operator reliance, brand recognition, and market influences. Depending on the situation, the fair value result for an assumed partial interest sale may be a discount, premium or unchanged from that calculated through the hypothetical sale of the entire asset method (waterfall process) commonly utilized above. The basic steps when establishing fair value for partial interests involve:

- Step 1: Determining the cash flow and reversion value of underlying real estate;
- Step 2: Compiling the economic and non-economic provisions of contract rights including buy/sell, decision making or veto, operator reliance, future option(s), term, etc.;
- Step 3: Estimating cash flow and capital proceeds distributions that a buyer of the partial interest will receive; and,
- Step 4: Discounting partnership cash flow and capital proceeds at an appropriate rate of return. The rate of return should incorporate typical property risk characteristics (location, type, tenancy, etc.) as well as risks associated with the limitations and benefits associated with the partnership agreement (control, decision making, liquidity, leverage, etc.).

While there are numerous textbooks, articles and white papers that can be referred to for theory and calculation techniques in valuing the transfer of a partial interest, the preceding text provides a broad overview of the two most commonly employed methodologies.

Valuation of Properties Under Development

The purpose of this guidance is to establish the general principles regarding the valuation of properties under development.

Investors generally pursue real estate developments in anticipation of realizing a profit for the development upon completion and subsequent stabilization, whereby the profit represents the investor's return for undertaking such investment decision. From a valuation perspective, this profit is often referred to as entrepreneurial profit.

When a market participant would reasonably anticipate a profit or loss upon completion and stabilization of a property, and that anticipation is supported by market evidence, it is generally accepted that a portion of that profit or loss may be recognized during the development process,[4] reflecting a reasonable profit earned through the date of value, while ensuring there is still sufficient market-supported profit (return) available to be recognized through the remainder of the development period.

Valuation of properties under development can be difficult, as arms-length transactions of such projects are not readily available. Due to this, some advisors value development assets at the cumulative cost of construction until the asset has reached a predetermined occupancy or physical completion level. This is reasonable when consistent with the fund's valuation policy. However, the general trend has been towards earlier commencement of valuation and shorter carry at cost periods, particularly for open end funds.

The recognition of profit or loss at various stages of the development process may involve some judgement on the part of the valuer, whether internal or external. The determination of profit or loss earned during development should involve consideration of the amount of risk remaining, the anticipated profit upon stabilization, and the extent to which certain risks have been mitigated through the date of value. An analysis of mitigated risk and remaining risk should include consideration of such factors as entitlement risk, construction risk, leasing/sales risk, operating expense risk, credit risk, capital market risk, interest rate risk, pricing risk, event risk, and valuation risk.

Not all risk factors will apply to all situations, and the degree of relative risk will vary by property type, location, market conditions, pre-leasing, and other property-specific factors. A thoughtful analysis of the recognized vs. total profit of a real estate development and the mitigated risk through the date of value in relation to the remaining risk should allow for the appropriate recognition of profit earned through the date of value for properties under development.

Specific to development assets, key elements of valuation that are typically analyzed include: estimates of value on an as is, as complete, and as stabilized basis; total development cost and cost assumed to have been spent as of the date of value; total profit or loss; profit or loss earned/recognized; and profit yet to be earned/recognized.

[4] Recognized within AICPA, Accounting and Valuation Guide, Valuation of Portfolio Company investments of Venture Capital and Private Equity Funds and Other investment companies, June 1, 2019, 5.107.

BIBLIOGRAPHY OF RECOMMENDED REFERENCE MATERIALS

This Bibliography section provides recommended reference materials that can be consulted for additional valuation related guidance, particularly as it pertains to standards of practice. Additional resource documents on various valuation topics that have been approved by the National Council of Real Estate Investment Fiduciaries (NCREIF) can sourced within the "Catalogue of Papers" on NCREIF website (specifically found within "Knowledge Base" - https://www.ncreif.org/member-home/knowledge-base/), and can be provided by NCREIF staff upon request.

Industry Foundational Literature

1. **Uniform Standards of Professional Appraisal Practice (USPAP)**, (Appraisal Standards Board, The Appraisal Foundation), www.appraisalfoundation.org.
2. **International Valuation Standards**, (International Valuation Standards Council (IVSC)), https://www.ivsc.org/standards/international-valuation-standards
3. **Canadian Uniform Standards of Professional Appraisal Practice (CUSPAP)**, (Standards Committee, Appraisal Institute of Canada), https://www.aicanada.ca/about-aic/professional-standards/
4. **The Appraisal Of Real Estate, Fourteenth Edition**, (Appraisal Institute, Chicago, IL, 2013).
5. **Appraisal of Real Estate, Third Canadian Edition**, (Appraisal Institute of Canada, 2002).
6. **RICS Valuation – Professional Standards**, (Royal Institute of Chartered Surveyors (RICS)), www.rics.org/standards.
7. **The Dictionary of Real Estate Appraisal**, Sixth Edition, (Appraisal Institute, Chicago, IL, 2015).
8. **Global Investment Performance Standards (GIPS®) Handbook** (CFA Institute), https://www.cfainstitute.org/en/ethics/codes/gips-standards

DEBT FUND MANUAL

NCREIF PREA
Reporting Standards

December 1, 2025

The NCREIF PREA Reporting Standards Debt Fund Manual has been developed with participation from NCREIF's Accounting, Valuation and Performance Measurement Committees, CREFC, and other industry professionals. The Debt Fund Manual is endorsed and approved by the NCREIF PREA Reporting Standards Council.

NCREIF PREA pension real estate association

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The Pension Real Estate Association (PREA)

NCREIF and PREA encourage the distribution of NCREIF PREA Reporting Standards among all professionals interested in institutional real estate equity and debt investments. Copies are available at www.reportingstandards.info.

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INTRODUCTION

1.01 Background

The NCREIF PREA Reporting Standards (Reporting Standards) have been developed with a mission to establish, manage and enhance transparent and consistent reporting standards for the real estate industry, fostering comparability and informed investment decision-making. The Reporting Standards build on, but are not intended to replace, established standards issued by authoritative organizations, including, but not limited to the following:

- Global Investment Performance Standards (GIPS®) promulgated by the CFA Institute;
- Generally Accepted Accounting Principles (GAAP) in the United States established by the Financial Accounting Standards Board (FASB); and
- The Uniform Standards of Professional Appraisal Practice (USPAP) developed by the Appraisal Standards Board of the Appraisal Foundation.

Collectively, these established standards are referred to as the Foundational Standards. The Reporting Standards include required and recommended elements of reporting (Volume I), as well as practical guidance that established standard-setting organizations do not specifically address regarding institutional real estate investment reporting (Volume II). The Reporting Standards are co-sponsored by the National Council of Real Estate Investment Fiduciaries (NCREIF) and the Pension Real Estate Association (PREA). More information on the co-sponsors can be found on their respective websites: www.ncreif.org and www.prea.org .

Historically, the Reporting Standards focused on real estate equity funds and investments. In March 2021, the Reporting Standards launched a project to expand to include debt funds and investments resulting in the release of updated Reporting Standards in April 2023. The corresponding adopting release of the updated Reporting Standards can be found here: *Reporting Standards Adopting Release April 2023*. The adopting release summarizes the changes made to the Reporting Standards and includes feedback received and conclusions reached, questions posed via exposure draft, and survey results included in the exposure draft.

Concurrently, NCREIF launched a working group jointly with the Commercial Real Estate Finance Council (CREFC) to develop data collection templates, data analytics and reporting resulting in the inaugural publication of the NCREIF/CREFC Open-end Debt Fund Aggregate in August 2023.

1.02 Purpose

The Debt Fund Manual (Manual) has been created to provide clarification and guidance related to:

- Complying with the Reporting Standards for debt funds. As noted above, the required and recommended elements for reporting can be found in Volume I. Compliance with the Reporting Standards is measured on an account (or fund) basis and all required elements must be reported. Recommended elements are considered best practice and may be applicable in certain situations. A Debt Fund Checklist has been created as a quick reference guide and is included in Appendix A. The Debt Fund Checklist should be used in conjunction with Volume I.
- Supporting the NCREIF/CREFC Open-end Debt Fund Aggregate (Aggregate) and any other subsequent data products.
- Industry best practices and other reporting metrics that may be used in the debt fund industry.

The Manual will be reviewed on a regular basis (at least annually) and updated as needed. Suggestions for improvements, clarifications and additional topics should be directed to administrator@reportingstandards.info.

1.03 Acknowledgements

The Reporting Standards Council and Board would like to acknowledge the Manual task force, which is responsible for the contents and completion of the Manual. In addition, the leadership of the Reporting Standards Council, NCREIF and the standing committees, and CREFC are to be acknowledged for the support and commitment to review and provide feedback throughout the Manual development process. It truly has been an industry effort.

The list of the Manual task force members and their respective firms can be found in the Appendix E to the Manual.

1.04 Organization of Manual

In addition to this introduction, this Manual has separate sections that address the following topics for debt funds and investments:

- Accounting
- Valuation
- Performance measurement

1.05 Terminology

Debt investment types

This Manual covers various debt investment types, including senior loans, subordinated loans, real estate owned (REO) assets, and securitized debt.

Subordinated loans encompass junior notes, structurally subordinated mezzanine loans, preferred equity interests in property-owning entities, and other similar subordinated real estate debt investments.

Commercial real estate property types include, but are not limited to, residential, industrial, office and retail properties.

- **Senior Mortgage:** A first mortgage that has a primary lien against the real estate property, taking precedence or priority over all other mortgages or subordinate loans in the event of default.
- **Junior Mortgage**: A mortgage secured by real estate subordinate to a first mortgage. It often refers to a second mortgage, but it could be a third or fourth mortgage or a subordinate interest in a senior mortgage. In the case of a foreclosure, the junior mortgages would receive repayments only after the senior (first) mortgage has been paid off first.
- **B-Note**: A B-note is the junior/subordinate portion of a split mortgage to one or more senior promissory notes, referred to as A-notes. The A-Note and B-Note of a given loan are secured by the same senior mortgage. However, the A-note is the senior piece and has the highest priority. The B-note is the subordinated piece, with lower repayment priority and thus, higher risk.
- **Mezzanine Loan**: A loan that is subordinate to the primary mortgage and that is secured by a pledge of the equity interests of the entity owning the property instead of secured by the real property itself. The borrower pledges its equity interest in the property as collateral for the mezzanine loan. A

mezzanine lender's remedy enforcement mechanisms are governed under the Uniform Commercial Code (UCC) rather than the state specific statutes that govern mortgage loan remedy enforcement mechanisms.

- **Preferred Equity:** Preferred equity is a form of subordinate financing that is structured as an equity investment in the property-owning entity or at the joint venture entity. Repayment is achieved through priority rights of cash flow and/or capital proceeds. These distribution rights may be structured to replicate principal and interest payments, and they may be accrued or paid current (or via some combination). Preferred equity investments may be accounted for as a loan or equity investment depending on the legal preferred equity structure utilized.
- **Real Estate Owned (REO):** REO property refers to real estate acquired by the lender following foreclosure or a similar transaction (including a deed-in-lieu). This typically occurs after a borrower default on a loan, resulting in the lender enforcing its remedies and taking title to the real estate collateral asset(s).
- **CRE Debt Securities:** Securities backed by commercial mortgage loans that may be traded publicly or privately. They include commercial mortgage-backed securities (CMBS), collateralized loan obligations (CLOs), collateralized debt obligations (CDOs), and other commercial real estate securities.
- **B-Piece**: The most junior set of bonds in CMBS securitization. The B-Piece generally refers to the below investment grade set of bonds.
- **Participating Mortgage**: A participating mortgage allows the lender to have participatory equity rights through a share of increases in property level income and/or increases in residual property value over the loan balance or original property value at the time of loan funding. A participating mortgage generally consists of four parts: (1) principal, (2) "base interest" payments at the contractually stated fixed or floating rate; (3) "contingent interest" payments for which the lender is paid a percentage of property net operating income or cash flow after debt service; and (4) "additional contingent interest," which is in the form of lender participation in the appreciation in the value of the underlying property.
- **Non-Participating Mortgage:** An investment secured by a lien on real estate that generally entitles the lender to payments of contractual principal and interest that do not increase based on the underlying operating results of the property.
- **Accrued Non-Current Interest**: Certain loans may divide the contractual interest rate into two components. A portion of the interest is due on periodic dates currently and paid in cash or via interest reserve, while the remaining portion of the interest is accrued / deferred until the maturity date of the loan.

Certain terms used herein are defined as follows:

- **Fund**: A vehicle where capital is pooled together and managed as a single entity with a common investment objective. For purposes of this Manual, a Fund includes commingled funds, co-investments, joint ventures and single-investor investment accounts. A fund has one or more investments and may include real estate equity and real estate debt investments.
- **Debt Investment**: A loan (such as a mortgage, mezzanine loan, debt security, and preferred equity) that is secured, directly or indirectly, by a commercial real estate property or properties. May also be referred to as "loan investment."
- **Financial Accounting Standards Board (FASB)**: The Financial Accounting Standards Board is the designated organization for establishing standards of financial accounting and reporting. Those

standards govern the preparation of financial reports. The FASB is officially recognized as authoritative by the Securities and Exchange Commission and the American Institute of Certified Public Accountants.

- **Accounting Standards Codification (ASC)**: Codification of FASB standards that comprise GAAP. FASB ASC Manual is used informally to refer to the current FASB standards under the ASC and ASU.
- **Accounting Standards Update (ASU)**: A document issued by the FASB in the United States, which details changes to the accounting standards codification and guidance on selected accounting policies set out by FASB.
- **American Institute of Certified Public Accountants (AICPA)**: The AICPA represents the CPA profession nationally regarding rulemaking and standard-setting and serves as an advocate before legislative bodies, public interest groups, and other professional organizations. The AICPA develops standards for audits of private companies and other services performed by CPAs.
- **Accounting principles generally accepted in the United States of America (US GAAP or GAAP)**: The United States accounting standards are established by the FASB. GAAP are the standards, conventions, and rules that accountants follow in recording and summarizing transactions and in preparing financial statements. US GAAP is a foundational standard of the Reporting Standards.
- **Global Definitions Database (GDD):** A common set of terms and meanings for the non-listed, private real estate industry created by a global alliance consisting of ANREV (Asian Association for Investors in Non-Listed Real Estate Vehicles), INREV (European Association for Investors in Non-Listed Real Estate Vehicles), and the Reporting Standards. Link to the GDD: www.reportingstandards.info/global-standards.
- **Global Investment Performance Standards (GIPS®):** The GIPS® standards are applied on a firm-wide basis and are ethical standards for calculating and presenting investment performance to prospective clients and prospective investors based on the principles of fair representation and full disclosure. The GIPS® standards (www.gipsstandards.org) are promulgated by and are a registered trademark owned by the CFA Institute. The GIPS® standards are one of the foundational standards of the Reporting Standards.
- **Commercial Real Estate Finance Council (CREFC):** CREFC is the trade association for the multi-trillion commercial real estate finance industry. CREFC and NCREIF together created the NCREIF/CREFC Open-End Debt Fund Aggregate.
- **Open End Debt Fund Aggregate (Aggregate):** The NCREIF/CREFC Open-End Debt Fund Aggregate is a fund-level aggregate comprising open-end funds that provide credit and financing to borrowers who own commercial real estate. The Aggregate contains funds with various strategies and styles, as reported by the managers. The Aggregate is not a benchmark; however, it is a step toward the goal of creating a more focused index/benchmark of open-end debt funds with a similar strategy around risk/return.

The Manual may contain additional words in capital letters that are defined in the Global Definitions Database or within the Manual itself.

ACCOUNTING

Background

As noted in the Reporting Standards, Volume I, Fair Value Generally Accepted Accounting Principles (FV GAAP) is the basis for fair value accounting used to report by the institutional real estate investment community to both tax-exempt investors (e.g., pension funds) and taxable investors (e.g., funds and international investors). It is the intent of this Manual for users to prepare financial statements that comply with GAAP, while supporting the Reporting Standards in a consistent and transparent manner. Furthermore, the topics within the Manual are generally focused on debt funds and investments that are reported at fair value in accordance with relevant GAAP guidance. Fair value across debt funds and investments is often promulgated by ASC 946, *Investment Companies*, or ASC 960, *Accounting and Reporting by Defined Benefit Pension Plans*.

Where applicable guidance is not specified within authoritative GAAP, non-authoritative guidance may be applied. The appropriateness of the sources of non-authoritative guidance depends on its relevance to particular facts and circumstances, and the specificity of the guidance to the facts and circumstances. The lack of applicable authoritative accounting guidance specific to the institutional real estate investment industry has caused certain fair value accounting practices and alternative presentations - prevalent in the industry - to constitute non-authoritative GAAP. These practices are included in the Manual.

This Manual and related appendices are not intended to address a comprehensive application of GAAP to the preparation of financial statements. Users of this Manual and the related appendices should consider all recently issued ASUs, whether included or excluded in this Manual to determine their effect on the preparation of financial statements.

Relevant accounting guidance contained in authoritative FASB ASC topics have been considered in the development of this Manual.

FUND LEVEL ACCOUNTING

2.01 Introduction

2.01(a) The Fund Level represents the aggregation of all investments (a reporting entity may hold one investment or multiple investments). In addition, it includes other assets, liabilities, income and expenses recorded at the fund level, as well as fund level debt that is not specifically allocated to a single investment or group of investments.

2.01(b) As detailed below, the Operating Model and the Non-operating Model provide alternative presentations while generally resulting in the same net asset values; diversity exists when determining which model is presented. The determination of the appropriate fair value reporting presentation to use is made by the entity's management based on a review of the relevant accounting literature. Reporting Standards require FV GAAP through application of either one of these presentations.

2.01(c) The information contained in this section is separated based upon the applicable reporting presentation.

2.02 Fair Value Net Asset Value (FV NAV)

2.02(a) FV NAV represents the fair value of the Fund's investment in the underlying investments owned (i.e., the fair value of the investments and other assets in excess of the fair value of the liabilities). While not all assets and liabilities under GAAP are required to be measured at fair value, the investments make up the vast majority of the Statement of Net Assets and both the Operating Model and Non-operating Model presentations require investments to be reported at fair value in accordance with ASC 820. Therefore, the FV NAV reported under both the Operating Model and Non-operating model will generally be the same.

2.03 Overview of Operating and Non-operating Presentations

2.03(a) Operating and Non-Operating Model

This Manual provides a consistent set of accounting standards for the institutional real estate and debt investment community. Entities investing in real estate and debt investments generally present their financial statements using the Operating Model (i.e., a gross presentation) or Non-operating Model (i.e., a net presentation). Fund management makes an accounting policy election to determine which presentation to utilize. Refer to Sections 2.04 and 2.05 below for further detail on the Non-operating and Operating Models, respectively.

- Note: This debt fund manual will outline and provide information for both the operating and non-operating model basis of presentation. For those debt funds that do not own any real estate investments, the expectation would be that both sets of financial statements are very similar in presentation given the nature and accounting treatment for debt investments. Primary drivers for the consistency in presentation for debt funds under both the operating and non-operating models are as follows:
    - The concept of consolidation, whereby underlying investment level operations are presented gross or net based on the consolidation conclusion, is not a primary driver

of any differences in presentation for debt investments given there typically is not a significant amount of investment level activity. This contrasts with real estate equity investments, where underlying investment level activity (rental revenues and property operating expenses, property level interest expense, etc.) and other investment level costs are shown on a gross basis versus net basis, driving a more significant difference in presentation.

- The pattern of revenue recognition for debt funds on a gross or net basis would generally be consistently applied. For real estate equity investments, the pattern of revenue and expense recognition can differ on a gross versus net basis.

The Reporting Standards require fair value financial information for all investments. The FV NAV of a fund should generally be the same under either reporting presentation. Varying interpretations of these two presentations exist. Other bases of presentation that may be used in the global real estate industry are not addressed within this Manual. The determination of the appropriate model to be used by a fund is made by fund management.

2.03(b) The fundamental premise for fair value-based accounting presentations is based on existing GAAP, which requires that certain investments held by tax-exempt investors, including defined benefit pension plans and endowments, are reported at fair value. This presentation is supported by FASB ASC Topic 960, *Plan Accounting — Defined Benefit Pension Plans* (ASC 960), and Governmental Accounting Standards Board (GASB) Codification Section Pe5, *Pension Plans-Defined Benefit*, and Section Pe6, *Pension and Other Postemployment Benefit Plans — Defined Contribution*, and is referred to throughout the Manual as the Operating Model.

2.03(c) Over the years, investments made by fund managers have become increasingly complex, and it has become apparent that many of these funds have attributes similar to those of an "investment company," as set forth in ASC Topic 946, *Financial Services — Investment Companies* (ASC 946), with significant content derived from the AICPA Audit and Accounting Guide — Investment Companies, (the "AICPA Investment Company Guide"). This authoritative guidance also supports the use of a fair value accounting presentation for investment companies when a fund meets the requirements to report as an investment company under ASC 946.

2.03(d) GAAP hierarchy is defined in two levels known as authoritative guidance and non-authoritative guidance. All authoritative GAAP is codified within a single source known as the ASC. Authoritative guidance takes precedent over non-authoritative guidance. However, non-authoritative guidance is applied for a particular transaction, item, or event when applicable guidance is not specified within authoritative guidance. As indicated above, ASC 960 is the authoritative accounting source for certain tax-exempt investment vehicles that hold real estate investments, and ASC 946 is the primary source for entities that satisfy the criteria of an investment company. Given the lack of specific authoritative GAAP applicable to a single model for the institutional real estate investment industry, a dual-reporting model prevails in the industry.

2.03(e) Common Fund Structures

Many funds adopt complex fund structures to increase flexibility in pricing, tax synergies, and access to alternative distribution channels for their shares. A master-feeder fund structure typically comprises one or more feeder funds that invest substantially all their assets in a master fund. External

investors hold equity interests in the feeder funds, while the master fund pools assets from all its feeder funds and invests them in accordance with its investment strategy. Under current SEC views, the annual reports of feeder funds should contain two sets of financial statements: one for the master fund and the other for the specific feeder fund. Another common fund structure is fund-of-funds, which are investment companies that invest in other investment companies. A typical fund-of-funds structure involves investments in more than one investee fund. A master-feeder structure can also be viewed as a fund-of-funds, but the feeder usually invests substantially all its assets into one investee fund (the master fund) and the master fund invests in investee funds.

As noted in the SEC's Investment Management Guidance Update No. 2014-11, in the circumstances of both master-feeder funds as well as fund-of-funds, generally, the SEC staff has taken the position that non-consolidated financial statements are most meaningful. For additional guidance around these structures and financial statement presentation, see Chapter 5 of the AICPA Investment Company Guide.

2.03(f) Fund Level Organizational Costs

Newly formed investment companies typically incur organization costs when forming the legal entity to conduct business under the entity's domicile. In accordance with ASC 946, and under ASC paragraph 720-15-25-1, organization costs should be expensed as incurred.

Note: There may be funds that maintain offering documents or limited partnership agreements that allow the fund to capitalize and amortize initial organization costs over a pre-determined time period (i.e., five years). This could result in differences between Trading NAV (per governing documents) and FV NAV for the fund. This Manual recommends that financial statement preparers discuss this scenario, when applicable, with their external auditors and other advisors.

2.03(g) Offering (Syndication) Costs

A newly formed entity may incur offering or syndication costs in connection with raising capital for a Fund. In accordance with ASC 946, offering costs of closed-end funds should be charged to equity/capital. For open-end funds, offering costs should be treated as a deferred charge and deferred until the beginning of operations and amortized to expense over 12 months.

2.04 Non-operating Model

2.04(a) Introduction

Many investment funds that satisfy the criteria of an Investment Company in accordance with ASC 946 may prepare financial statements under the Non-operating Model. Financial statements prepared under the Non-operating Model report all investments at fair value on a recurring basis.

The Non-operating Model generally utilizes a “net” presentation. The Statement of Net Assets presents investments as a single line item, by presenting the fund’s fair value of its total debt investments. The Statement of Operations generally reports investment income from debt investments on an accrual basis. If the Fund has any real estate investments (i.e. through foreclosure), the Statement of Net Assets presents the equity investment as a single line item by presenting the fund’s fair value of its net equity position. Investment income will represent the cash that the fund receives as Income distributions from real estate equity investments. Any undistributed profits from

the investment's operations are reported through change in unrealized gain or loss when the fund fair values the net working capital of its underlying investment in real estate.

2.04(b) Election of the Fair Value Option under ASC 825-10

The Fair Value Option under ASC 825-10 permits entities to elect a one-time irrevocable option to measure financial instruments including, but not limited to, notes payable and portfolio level debt at fair value in accordance with ASC 820 on an instrument-by-instrument basis. Further information can be found in Section 3.08.

2.04(c) Consolidation - Applicability of ASC 810

ASC 810-10-15-12d states, "Except as discussed in paragraph 946-810-45-3, an investment company within the scope of Topic 946 shall not consolidate an investee that is not an investment company." Rather, those controlling financial interests held by an investment company shall be measured in accordance with guidance in Subtopic 946-320, which requires investments in debt and equity securities to be subsequently measured at fair value.

The exception referred to above, discussed in paragraph 946-810-45-3, refers to instances in which the investment company has an investment in an operating entity (i.e., does not meet the criteria of an investment company under ASC 946) that provides services to the investment company, for example, an investment adviser or transfer agent. In those cases, the purpose of the investment is to provide services to the investment company rather than to realize a gain on the sale of the investment. If an individual investment company holds a controlling interest in such an operating entity, consolidation is appropriate.

Additionally, if an intermediate entity such as a blocker corporation or REIT is wholly owned by an investment company and acts as an extension of the investment company's operations and to facilitate the investment strategy, it could be considered for consolidation in accordance with ASC 810.

See section 2.05(c) for additional information.

2.04(d) Consolidation - Applicability to Investment in an Investment Company

GAAP is silent on the topic of when it is appropriate for an investment company to consolidate another investment company in which it holds a controlling financial interest. Accordingly, diversity in practice exists in this area. Refer to the Basis for Conclusion in ASU 2013-08 (BC 62 to 65) for further information on the concerns of the board and stakeholders when they contemplated this issue as part of the Investment Company project.

2.04(e) Equity Method

Under ASC 946, for the non-operating model an investment company cannot apply the equity method of accounting to a noncontrolling interest in another investment company. Such an investment must be measured by an investment company at fair value in accordance with ASC 946-320.

2.04(f) Revenue Recognition

As mentioned above, interest income from debt investments is generally accrued on a monthly basis. For real estate investments, revenue is typically recognized when dividends are received from the investee to the extent of undistributed earnings by the investee (e.g., tax basis earnings, GAAP earnings). Dividend income is presented as a component of net investment income. In this presentation, any undistributed earnings by the investee are part of the fair value of the investee and therefore are reflected in the unrealized gain or loss.

Changes in fair value from period to period are reported as changes in unrealized gain or loss on the statement of operations, which is presented separately from net investment income. These gains or losses are realized upon the disposal of an investment.

2.05 Operating Model

2.05(a.1) Introduction

Under the Operating Model, the Statement of Net Assets presents the gross assets and gross liabilities of the fund's investments as separate line items. The Statement of Operations presents the gross revenue and expenses. Note that consolidation guidance per ASC Topic 810, Consolidation, may be considered such that any Equity Method Investments would be presented as an asset balance within a single financial statement line item.

2.05(a.2) Entities that report under ASC 960 are required to follow ASC 810, *Consolidation* (ASC 810), and ASC 323, *Investments – Equity Method and Joint Ventures* (ASC 323). As indicated above, some entities that report under ASC 946 may elect to present their financial statements under the Operating Model. It is best practice that those entities that present their financial statements based on the Operating Model under ASC 946 consider the consolidation guidance in ASC 810 in determining an accounting policy, including an evaluation of whether or not the investee is a variable interest entity (VIE), to determine whether it has a controlling financial interest in the investee and therefore whether consolidation under the operating model is appropriate.

2.05(a.3) Investments must be reported at fair value in accordance with ASC 820. The objective of the Statement of Operations is to present the increase or decrease in the net assets resulting from the entity's investment activities.

2.05(b) Election of the Fair Value Option Under ASC 825-10

The Fair Value Option under ASC 825-10 permits entities to elect a one-time irrevocable option to measure financial instruments including, but not limited to, portfolio level debt at fair value in accordance with ASC 820 on an instrument-by-instrument basis.

2.05(c) Consolidation: Applicability of ASC 810

2.05(c.1) Under the Operating Model, a fund should generally assess consolidation under ASC 810. Investments may include direct investments in real estate and debt, as well as holdings of controlling equity interests in separate legal entities, which invest in real estate assets. The fund manager may consider existing authoritative guidance within ASC 810 to determine whether an investment in an investee (e.g., joint venture) represents a VIE to be assessed for consolidation under the VIE model,

or whether the investment in an investee should be consolidated in accordance with the voting interest entity model.

2.05(c.2) Under the scope exception referred to in ASC 810-10-15-12(d), an investment company technically should not consolidate an investee that is not an investment company unless the investee is an operating entity that provides services to the investment company. However, it is suggested that a fund that qualifies as an investment company and prepares its financial statements under the Operating Model perform the consolidation analysis under ASC 810, including an evaluation of whether the investee is a VIE, to determine whether it has a controlling financial interest in the investee and therefore whether consolidation under the Operating Model is appropriate.

To the extent that ASC 810 is not followed as a result of the preceding paragraph, preparers should consider adopting and applying a consistent accounting policy, for example, by looking at their ownership percentage, rights of the different partners, etc., to determine the most appropriate and meaningful presentation for presenting the investment on a gross basis (akin to a consolidated JV) or net basis (akin to an equity method investment).

2.05(d) Consolidation: Accounting

2.05(d.1a) Entities that report under ASC 960 are required to follow ASC 810. While ownership of a greater than 50% voting interest in an investment is generally considered to be an indication of control, many joint venture investments contain complex governance arrangements that make assessments of control difficult. A multitude of factors must be considered in deciding whether consolidation of an investee is appropriate, including a determination of whether or not the investee is a VIE. If investments in entities are not deemed to be controlling interests, the equity method of accounting should be followed if the “significant influence” criterion is met in accordance with ASC 323.

2.05(d.1b) It is suggested that entities that report as investment companies under ASC 946 and utilize the Operating Model presentation follow ASC 810. Although ASC 946-323-45-1 precludes the use of the equity method of accounting for investment companies, given the use of the operating model presentation for many real estate funds, it is best practice to apply judgment and follow ASC 810 as outlined above. If investments in entities are not deemed to be controlling interests, these investments should be accounted for as investments in non-consolidated joint ventures, in a similar manner to ASC 323.

2.05(d.2) Under the Operating Model, investments either owned directly by a fund or reported through the consolidation of an investee are recorded on the Statement of Net Assets at their fair value. If the investee is less than 100% owned, a corresponding credit to noncontrolling interest is recorded at fair value for the noncontrolling interest in the investment. The difference between fair value and the adjusted cost basis of an investment is the unrealized gain or loss associated with the asset and liability, and if applicable, the noncontrolling interest. Changes in fair value from period to period are reported as changes in unrealized gain or loss on the statement of operations, which is presented separately from net investment income. These gains or losses are realized upon the disposal of an investment.

2.05(d.3) The consolidation process outlined in ASC 810 requires that the noncontrolling interest continues to be allocated its share of losses even if that allocation results in a deficit noncontrolling interest balance. This standard also requires the acquirer to measure a noncontrolling interest in the acquiree

at its fair value at the acquisition date. The noncontrolling interest would continue to be recorded at fair value assuming a hypothetical liquidation at fair value. An entity should perform an assessment of its noncontrolling interest's rights and consider whether the noncontrolling interest is a redeemable equity security within the scope of ASC 505-10-50.

2.05(e) Accounting for Investments in Non-consolidated Joint Ventures

Investors with non-controlling investments in investees (e.g., partners in joint ventures) accounted for under the equity method of accounting should record as investment income only their share of the investee's net income or loss, determined in accordance with GAAP on the fair value basis of accounting. The investment is recorded at fair value with the difference between the fair value and the basis recorded as an unrealized gain or loss. This amount is exclusive of items such as depreciation, amortization, and deferred rent, but would include promote reallocations, as appropriate. ASC 970-323-35-17 suggests that stipulated income allocation ratios should not be used if cash distributions and liquidating distributions are determined on some other basis (i.e., income should be allocated first on behalf of any preferred returns or interest, and then to the respective partners in proportion to their contractual ownership interests, etc.). Intercompany items, such as interest on loans by an investor to an investee should be eliminated to the extent of the investor's economic interest in the venture, as if the investee were consolidated.

For all investment companies that follow ASC 946 and utilize the Operating Model presentation, investments in non-consolidated joint ventures are initially recorded at the original investment amounts, are subsequently adjusted for the entity's share of undistributed earnings and losses (including unrealized and realized gains and losses) from the underlying entities from the dates of formation, are increased by additional contributions, and are reduced by distributions received.

2.06 Capital / Equity Transactions

2.06(a) Contributions/Reinvestments

Entities shall record capital contributions and reinvestments (for open end funds) as of the date required by any fund governing documents. Cash received for capital contributions before the required date shall be recorded as an advance capital contribution liability and subsequently reclassified to equity upon the required capital call date.

2.06(b) Distributions/Dividends

Entities should record distribution liabilities on the legal date of declaration in accordance with fund governing documents. Open-end funds may record the liability on the ex-dividend date to properly state the net asset value at which sales and redemptions are made. Closed-end funds typically record the distributions when the cash distribution is made.

2.06(c) Redemptions

Open-end funds with redemption provisions shall record redemptions in accordance with fund governing documents and evaluate if there are any redemption liabilities to be recorded prior to payment based on these legal terms.

2.07 Accounting for Uncertainty in Income Taxes

ASC 740, *Income Taxes*, provides guidance for how uncertain tax positions should be recognized, measured, presented and disclosed in the financial statements. ASC 740 requires the evaluation of tax positions taken in the course of preparing a fund's tax returns to determine whether tax positions are "more-likely-than-not" of being sustained by the applicable tax authority. Tax benefits of positions not deemed to meet the more-likely-than-not threshold would be recorded as a tax expense in the current year. Many funds are held through transparent or flow through entities so that the taxable income is reported on separate tax filings including investor K-1s. Therefore, the tax impact of certain positions (including the character of income and gains, investor qualifications/status, classification of income for The Employee Retirement Income Security Act of 1974 (ERISA) reporting, etc.) may or may not affect the GAAP basis financial reporting. In preparing financial statements, tax positions to be reviewed and analyzed may include non-transparent entities at or below the funds, international investments subject to tax in other jurisdictions, and other special considerations including but not limited to the following:

- Tax Exempt Entity Status
- REIT Status
- State and Local Tax Determinations/Nexus
- Unrelated Business Taxable Income
- International Tax Treaties

INVESTMENT LEVEL ACCOUNTING

3.01 Introduction

3.01(a) This section outlines the accounting policies to be followed for accounting at an investment level for interests in various debt investments on a fair value basis.

3.01(b) Debt investments are made using various investment structures. Included in this section is guidance relating to the following investment structures:

- Non-participating and participating mortgage loans receivable, including senior and junior mortgages, A-notes, B-notes, and accrued non-current interest mortgage loans.
- Preferred equity investments and mezzanine loans
- Real estate owned (REO)
- Debt securities, including B-piece securities
- Financing alternatives (liabilities)

3.01(c) The guidance throughout this Manual will reference certain sections of the FASB ASC Manual. Relevant ASC sections referenced throughout include:

- ASC 310-20, *Nonrefundable Fees and Other Costs*: provides guidance on the recognition, measurement, derecognition, and disclosure of nonrefundable fees, origination costs, and acquisition costs associated with lending activities and loan purchases.
- ASC 326, *Financial Instruments – Credit Losses*: provides guidance on how an entity should measure credit losses on financial instruments

- ASC 810, *Consolidation*: provides guidance on the identification, consolidation, and disclosure of entities that are controlled by the reporting entity through means other than voting rights, such as special purpose entities (SPEs) or variable interest entities (VIEs).
- ASC 820, *Fair Value Measurement*: provides guidance around fair value measurements, including (1) defining fair value; (2) establishing a framework for measuring fair value; and (3) outlines required disclosures about fair value measurements.
- ASC 825-10, *Financial Instruments - Overall*: provides guidance around the recognition and measurement of financial assets and liabilities, including certain origination costs.
- ASC 835-30, *Imputation of Interest*: provides guidance for the appropriate accounting when the face amount of a note does not reasonably represent the present value of the consideration given or received in the exchange.
- ASC 860, *Transfers and Servicing*: provides guidance on the recognition, derecognition, and measurement of transferred financial assets and the servicing rights and obligations related to those assets
- ASC 946, *Financial Services – Investment Companies*: provides incremental industry-specific guidance for the entities that meet the assessment of investment company status.

3.02 Investments in mortgages and other loans receivable: General discussion

3.02(a) There are primarily two types of mortgage loan investments held by funds: non-participating and participating mortgage loans. A non-participating mortgage loan is an investment that generally entitles the lender to payments of contractual principal and interest that do not increase based on the underlying operating results of a property.

3.02(b) A participating mortgage is an investment that generally consists of four parts: (1) principal; (2) ”base interest” payments at contractually stated fixed or floating rates; (3) ”contingent interest” payments for which the lender is paid a percentage of property net operating income or cash flow after debt service; and (4) ”additional contingent interest,” which is in the form of lender participation in the appreciation in value of the underlying property.

3.02(c) Usually the loan terms of a participating mortgage are set somewhat more favorably to the borrower than those of a non-participating mortgage on the same property. Common terms on a participating mortgage historically include high loan-to-value ratios, base interest rates that are lower than comparable non-participating mortgages, and the occasional structure that may allow for a deferral of interest between the basic interest coupon and some lower “pay rate,” typically during development and lease-up. The deferral may be paid when cash flow from net operating income is sufficient or may be added to the loan balance and be payable in full only at maturity.

3.02(d) The contingent interest component of a participating mortgage often represents a lender’s right to a portion of the adjusted net cash flow generated by the collateralizing property. Typically, certain expenses such as, but not limited to, legal or other professional fees related to ownership of the property (i.e., not directly related to the operating activities of the property) are not permitted as deductions from gross income for determining the amount in which the lender participates in contingent interest. Often a reserve for replacements, or for tenant improvements, leasing commissions, and capital expenditures, is set aside from net operating income before the lender participates in the remainder.

3.02(e) The additional contingent interest or equity conversion component often specifies a hurdle rate that the lender is entitled to receive from basic interest, contingent interest and additional contingent interest before the borrower participates in any additional upside (i.e., appreciation or proceeds from sale).

3.03 Accounting for non-participating mortgage loans receivable

3.03(a) **Measurement**: Non-participating mortgage loans receivable should be carried on the statement of net assets at their fair value. The difference between fair value and the adjusted cost basis of a mortgage loan is the unrealized gain or loss on investment. Valuation changes in fair value from period to period are reported as unrealized gain or loss on the statement of operations and are presented separately from net investment income. Such unrealized gains or losses are realized upon the disposition of the investment either through a sale of the mortgage note receivable (in accordance with the guidance in ASC 860, *Transfers and Servicing*) or through paydown of the mortgage note receivable by the borrower at maturity (or prior to maturity in the case of early prepayments).

3.03(b) **Loan acquisition and origination costs (expense)**: Loan origination costs, as defined by ASC 310-20-20, represent costs associated with originating a loan.

There are two methodologies that may be applied for the subsequent treatment of loan origination costs within the statement of operations:

- Upfront expense recognition: For mortgages held at fair value, loan origination costs shall generally be expensed as incurred[1].

- Amortization over life of the loan: Although it may not be general industry practice for certain fair value reporting entities, direct loan costs and loan origination fees (See Section 3.03(c) below) may be offset and only the net amount is deferred and amortized over the life of the related loan using the interest method described in ASC 835. The objective of the interest method is to arrive at periodic interest income, net of fees and costs, that reflects a constant effective yield on the net investment in the mortgage loan receivable.

    - Note: The amortization of these costs for BDCs and investment companies was also discussed as part of an AICPA Expert Panel, in which the panel acknowledged that an application of guidance in accordance with ASC 310-20 to defer the loan costs over the life of the loan by analogy is reasonable.

Other lending-related costs should generally be expensed in the period incurred. In certain instances, there may be acquisition costs incurred if a fund were to acquire a mortgage loan receivable versus originating the loan. Other acquisition costs could represent fees paid to investment managers and/or other professional fees associated with closing of a net investment. Under Topic 946, there is diversity in practice if these costs are expensed directly to earnings or as an unrealized loss, as these costs do not have incremental fair value.

[1] ASC 825-10-25-3

3.03(c) **Origination fees (income)**: Origination fees represent fees generally collected up-front from borrowers that generally are determined based on a percentage of the total loan commitment, in accordance with the loan agreement terms.

ASC 946 does not provide specific guidance pertaining to fee income associated with loan originations. As a result, there are two methodologies that could be considered when determining the appropriate accounting for such fees.

- Recognized as income when received: It is common practice and recommended that fair value funds recognize origination fees when collected, typically at investment inception, in accordance with the terms of the related investment agreements. This is consistent with guidance per ASC 825-10-25-3 (as outlined above) for investments held at fair value.

- Capitalized and deferred, net of origination costs: As outlined above within Section 3.03(b), certain entities may net origination fees with origination costs and defer over the life of the related loan under the effective interest method in accordance with ASC 310-20.

Note: Certain fair value funds may elect to capitalize and amortize loan origination fees over the life of the loan. In these instances, the preparers of the financial statements may choose to analogize the accounting treatment to the treatment of interest for premiums or discounts. Section 2.122, *Interest*, of the *AICPA Audit and Accounting Guide: Investment Companies* dated August 1, 2023 (the Investment Company Guide) outlines the following:

- As stated in FASB ASC 946-320-35-20, premiums and discounts should be amortized using the interest method. FASB ASC 835-30-35-2 states that the difference between the present value and the face amount of the net investment should be treated as a discount or premium and amortized as interest expense or income over the life of the note in such a way as to result in a constant rate of interest when applied to the amount outstanding at the beginning of any given period.

3.03(d) **Fee income**: The loan agreement's contractual terms may provide additional fees and charges to the borrower to pay the fund, which are recorded as fee income on the fund's statement of operations.

These additional fees may include loan modification fees, late charge fees, non-refundable underwriting or due diligence fees (which are usually collected upfront upon executing the term sheet with the borrower), and exit fees. Exit fees are similar to origination fees, whereby a financing fee is negotiated and embedded within the loan agreement; however, its payment is deferred until a later date. Unlike a prepayment penalty, exit fees are received not only if the loan is paid off early but also when it is paid off at maturity. Although these additional fees may be negotiated and embedded within the loan agreement, they may be subject to further renegotiation as the loan nears maturity or repayment.

ASC 946 does not provide specific guidance pertaining to loan fee income. As a result, two methodologies could be considered when determining the appropriate accounting for such fees similar to the origination fee as discussed above in section 3.03(c) by either recognizing the income upon receipt of the exit fee payment or any other fee income (best practice for fair value funds) or accruing the exit fee income over the life of the loan.

When making the determination on treatment, a distinction between service-based fee income (likely to be recognized as incurred) versus yield enhancement (likely to be deferred and amortized) may be a critical component and judgment from an accounting treatment perspective.

3.03(e) **Interest receivable**: The carrying amount of interest receivable currently due (generally one year or less) are generally considered to approximate fair value. Therefore, for fair value reporting, interest receivable currently due may be reported at its undiscounted amount provided that the results of discounting the carrying amount would not be material and that receipt can reasonably be assured.

3.03(f) **Interest income**: Interest income associated with any non-participating mortgage loan receivable is reported in net investment income. The recognition of base interest income should be on an accrual basis in accordance with the contractual terms of the loan unless the loan is considered non-performing under GAAP. For mortgage loans with fixed and determinable rate changes, base interest income should be accounted for when the change contractually occurs rather than using an effective interest or straight-line method.

For non-performing loans (e.g., the borrower is unable to fulfill its payment obligations), the accrual of interest income is generally suspended when the collection of interest is less than probable or the collection of any portion of the loan's principal is doubtful. Although GAAP does not directly address how a creditor should recognize, measure, or display interest income on a non-performing loan, accounting guidance[2] allows a creditor to use existing methods of recognizing interest income. This may include:

- Cash-basis method: Interest income is recognized under a cash method whereby cash payments of interest received are recorded as income.
- Cost recovery method: Any interest or principal received is recorded as a direct reduction of the recorded investment in the loan.

3.03(g) **Fair Value** measurement: Valuation adjustments are reported as unrealized gains and losses. The fair value of a non-participating mortgage loan and any accrued non-current interest may be based on the discounted value of the total future expected net cash flows.

The selection of an appropriate discount rate should reflect the relative risks involved and interest rates charged for similar receivables. The determination of fair value must also take into consideration the underlying collateral, credit quality of the borrower, and any related guarantees, as well as the specific terms of the loan agreement, and if applicable, the most recent covenant report(s).

Refer to the Valuation Section for further details regarding valuation considerations, methodologies and other pertinent information impacting the valuation of debt fund investments.

3.03(h) Modification of mortgage terms should generally be accounted for through an adjustment of value and recorded through unrealized gain or loss in the statement of operations.

[2] ASC 310-10-35-53

3.04 Accounting for participating mortgage loans receivable

3.04(a) Because of the participation feature inherent in these loans, and the fact that the lender usually provides a significant portion, if not all, of the funds necessary to acquire, develop, or construct the property, accounting for participating mortgages should be determined based upon the following guidance, as applicable.

A participating mortgage may have the characteristics of either a loan, a noncontrolling equity investment in a joint venture, or a controlling interest subject to consolidation for accounting purposes, depending on the facts and circumstances[3].

3.04(b) Participating mortgages not considered joint ventures or investments in real estate in accordance with ASC 310 should also be carried on the balance sheet at their fair value. The difference between fair value and the adjusted cost basis of a mortgage loan is the unrealized gain or loss associated with the asset. Changes in fair value from period to period are reported as changes in unrealized gain or loss on the statement of operations, which is presented separately from net investment income. Such unrealized gains or losses are realized upon the disposition of the investment, either through a sale of the mortgage note (in accordance with the guidance in ASC 860) or through paydown of the mortgage note by the borrower at maturity (or prior to maturity in the case of early prepayments).

3.04(c) **Initial measurement (including loan origination costs, loan origination fees, fee income)**: Refer to Section 3.03(b), 3.03(c) and 3.03(d) for details and discussion on the accounting for these items.

3.04(d) **Interest income**: Interest income associated with any participating mortgage loan is reported in net investment income. The recognition of base interest income should be based on an accrual basis in accordance with the contractual terms of the loan unless the loan is considered non-performing under GAAP. For mortgage loans with fixed and determinable rate changes, interest income should be accounted for based on when the change contractually occurs rather than using an effective interest or straight-line method.

For non-performing loans, generally the method for interest recognition is the cash method where payments of interest received are recorded as interest income provided that the amount does not exceed that which would have been earned based on the contractual terms of the loan.

Contingent interest income from operating cash flows is also recorded by the lender as part of net investment income upon the resolution of the contingency or the receipt of cash. Additional contingent interest received from disposal or refinancing of the underlying property is recorded as part of realized gains and losses.

3.04(e) **Fair value measurement**: The fair value of a participating mortgage investment is equal to the discounted value of the total future cash flows expected from the investment. The value of the mortgage loan may not exceed the value of the underlying real estate plus any qualifying guarantees.

The discount rate used in the valuation should reflect the risk/return characteristics of the participating investment structure. The valuation may be performed with different discount rates for the different sources of the anticipated cash flows; a “debt” rate may be associated with the nonparticipating cash flows, and an “equity” rate may be associated with the participation cash flows.

[3] ASC 310-10-25, paragraphs 19-20

In all cases the economic substance of the transaction must be taken into account in determining the value of the investment.

Refer to the Valuation Section for further details regarding valuation considerations, methodologies and other pertinent information impacting the valuation of debt fund investments.

3.04(f) **Modifications**: Modification of mortgage terms should be accounted for through an adjustment of value and recorded through unrealized gain or loss in the statement of operations.

3.05 Accounting for preferred equity investments

3.05(a) **Preferred equity**: A preferred equity investment is often facilitated through the fund acquiring an ownership interest in an underlying joint venture with a third-party owner or operator. The terms of the joint venture agreement will dictate the fund's underlying investment and related accounting treatment. In certain instances, the investment may be reported as an investment in an underlying joint venture, in which the fund's investment represents a preferred return on contributed equity. In many instances, the fund will not have participating rights in the income or distributions of the underlying properties within the joint venture above the preferred return. The income or preferred return on investment would be recorded on an accrual basis in accordance with the terms of the preferred equity agreement (i.e., monthly/quarterly).

In some cases, the preferred equity investment may be structured as a debt investment based on the terms of the legal agreement. In these scenarios, income would be recognized in accordance with the terms of the investment and corresponding interest rate.

The nature and structure of the preferred equity investment (investment in a joint venture or debt investment) will dictate the financial statement presentation within the statement of net assets. For those investments deemed to be an investment in an underlying joint venture, the user can refer to the existing NCREIF PREA Fair Value Accounting Manual for additional detail. For those investments deemed to be a debt investment, refer to section 3.03 above for additional information.

3.05(b) **Consolidation**: Depending on the nature of the preferred equity investment and the basis of accounting that is applied at the fund level (gross - operating versus net - non operating), a consolidation analysis may be necessary to evaluate whether the fund has control of the underlying joint venture in instances when the investment is deemed to be through an underlying joint venture. If the operating model is utilized to present the fund financial statements, this may be an appropriate step. Refer to the Fair Value Accounting Manual for further consolidation considerations for real estate joint ventures.

For preferred equity investments structured as a debt investment, or when the financial statements are presented in accordance with ASC 946 on a net basis, there is no requirement to perform a consolidation analysis.

3.06 Real estate owned (REO) & REO transactions

3.06(a) When a fund receives physical possession of real estate property that collateralized a mortgage loan (through an in-substance repossession, deed-in-lieu or foreclosure), there should be consideration given to the change in the form of its investment.

A fund is considered to have received physical possession (resulting from an in-substance repossession, deed-in-lieu or foreclosure) of real estate property collateralizing a mortgage loan only upon the occurrence of either of the following:

- The fund obtains legal title to the real estate property upon completion of a foreclosure. A fund may obtain legal title to the real estate property even if the borrower has redemption rights that provide the borrower with a legal right for a period of time after a foreclosure to reclaim the real estate property by paying certain amounts specified by law.
- The borrower conveys all interest in the real estate property to the fund to satisfy the loan through completion of a deed in lieu of foreclosure or through a similar legal agreement. The deed in lieu of foreclosure or similar legal agreement is completed when agreed-upon terms and conditions have been satisfied by both the borrower and the fund.

In many legal jurisdictions, a borrower has a legal right to reclaim a foreclosed real estate property, for some period of time, by paying an amount specified by law. A fund should not wait until this redemption period has expired to reflect the change in the form of a mortgage loan investment to real estate property. The creditor obtains physical possession when it obtains legal title because it generally has the right to sell the property subject to the borrower's right of redemption.

Accounting guidance for REO transactions is primarily driven by ASC 310-40. When a creditor receives physical possession of real estate property that collateralized the mortgage loan, it should derecognize the loan receivable and recognize the real estate property at its fair value in accordance with GAAP[4].

For investment companies, ASC 946 does not provide specific guidance on how to record any difference between the mortgage loan investments carrying value (representative of fair value, which is often reflective of the fair value of the underlying collateral in cases where the borrower has defaulted or is otherwise exhibiting signs they are unable to repay the loan) and the fair value of the REO asset.

As a result, there are two methodologies that could be considered when determining the appropriate accounting for such differences in the real estate property recognized at fair value at the point of physical possession by the lender and fair value of the mortgage loan investment.

- In one methodology, the associated difference between the fair value of the mortgage loan and the REO asset is recorded as an unrealized event within the statement of operations. Under this methodology, there has been no realization event as the investment still exists; however, the investment has taken the form of an equity interest rather than a mortgage loan. As there is still uncertainty to the overall returns from the initial mortgage loan investment the fund would continue to record all changes to the fair value of the investment (regardless of the form) as unrealized until the real estate property is sold. The cost basis in the mortgage loan would be the outstanding principal balance of the mortgage.
- The other methodology would be to treat the receipt of real estate property in exchange for the mortgage loan investment as a realization event in the statement of operations. Under this

[4] ASC 310-20-40-2

approach, the new cost basis of the real estate property would be the fair market value of the real estate property at the time of foreclosure.

In determining which approach is utilized, the fund's management should understand legal form (i.e., is the real estate property owned under a new legal entity or the existing LP/LLC that originated the mortgage loan) when considering whether there is a realized or unrealized event.

Regardless of the methodology followed regarding the reporting for repossession, deed-in-lieu or foreclosures, such methodology should be disclosed and applied consistently through the fund's life. Relevant details of the foreclosure should be included in the notes to provide for an understanding of the nature of the investment.

Foreclosed or repossessed real estate should be presented on the balance sheet as a separate financial statement line item with disclosure of the change in the form of the investment disclosed in the notes to the financial statements. ASC 310-10-50 also requires a fund to disclose (1) the carrying amount of foreclosed real estate property held by the fund and (2) the recorded investment in consumer mortgage loans collateralized by real estate property that are in the process of foreclosure.

Refer to the NCREIF PREA Reporting Standards Fair Value Accounting Policy manual for further guidance on the accounting for real estate property investments after foreclosure, deed-in-lieu or repossession in the fund's financial statements.

3.07 Accounting for Debt Securities

3.07(a) **Debt Securities**: A fund may invest in a variety of different types of securitized loan products including Collateralized mortgage-backed securities (CMBS), CLOs, Collateralized debt obligations (CDO), and other publicly or privately traded commercial real estate securities. These are fixed income debt investments backed by mortgages on commercial real estate properties.

Securitized debt vehicles are financial arrangements that involve the transfer of assets, such as loans or receivables, to a separate legal entity, such as a special purpose entity (SPE) that issues securities backed by the cash flows from the assets. The purpose of securitization is to isolate the assets from the credit risk of the transferor, to enhance the liquidity and marketability of the assets, and to lower the cost of funding for the transferor.

3.07(b) **Accounting**: The accounting for most fixed income debt securities will be similar in nature to the accounting guidance outlined above per Section 3.03.

The accounting for certain securitization transactions depends on whether the transferor has surrendered control over the transferred assets and whether the transferee is a consolidated entity of the transferor. The consolidation of securitized debt vehicles is governed by the guidance within ASC 810 and ASC 860.

3.07(c) **Consolidation Principles**: The concept of consolidation does not apply for debt funds that meet investment company criteria in accordance with ASC 946 and present on a non-operating or net basis. For debt funds that are presented on a gross basis, the consolidation of securitized debt vehicles is based on the concept of control, which is the power to direct the activities of an entity that most significantly affect its economic performance. Control can be achieved through voting rights or other

contractual arrangements that give the reporting entity the ability to influence the decisions and outcomes of the securitized debt vehicle.

3.08 Financing Alternatives

Funds may utilize a variety of forms of leverage, both financial and structural, to enhance the returns of the fund. Financial leverage alternatives include note-on-note financing, repurchase facilities (warehousing facilities), and securitization via the commercial real estate collateralized loan obligation (CLO) market.

Structural leverage may be achieved through (i) sale or syndication of senior participation interests in the fund's originated mortgage loans, or (ii) acquiring a subordinate position from another originating lender.

For entities that present in accordance with ASC 960, there is diversity in practice as certain funds may hold these financing alternatives at cost.

Investment companies that do reflect these financing alternatives at fair value should do so in accordance with ASC 820 based on the amount, from the market participant's perspective, at which the liability could be transferred in an orderly transaction between market participants at the measurement date, exclusive of transaction costs. The fair value definition of ASC 820 focuses on the price that would be paid to transfer the liability (an exit price), not the price that would be received to assume the liability (an entry price).

The Fair Value Option under ASC 825-10 also permits entities to elect a one-time irrevocable policy election option to measure financial instruments at fair value on an instrument-by-instrument basis.

3.08(a) **Note-on-note financing**: The fund may finance the acquisition of mortgage loans using note-on-note transactions in which the note-on-note lender provides an advance (calculated as a percentage) against the loan asset originated or acquired by the fund. In return, the fund assigns the underlying loan as collateral to the note-on-note lender. Note-on-note financings may be either partially recourse or non-recourse to the fund. The fund maintains the levered asset in its statement of net assets and the proceeds from the transaction are recorded as a liability in the fund's statement of net assets. The note-on-note accrues interest expense based on contractually defined rates at time of issuance. The fund is obligated to continue paying interest to the note-on-note holder even if the original borrower defaults. If the fund defaults on its obligations, the note-on-note lender can take ownership of the underlying loan (collateral) without going through foreclosure proceedings.

3.08(b) **Loan participation**: In this structure the fund originates a loan, and either concurrently or subsequently transfers an interest in that loan to one or more lenders in exchange for proceeds equaling the transferred interest. Participations may be either (a) pari passu (of equal priority) or (b) senior/subordinate. The former does not create structural leverage; it only reduces the fund's exposure. If the fund transfers a senior position (either a senior mortgage or A-note) whereby the fund retains a subordinate position, this transaction creates structural leverage. Loan sales and participations are usually non-recourse to the fund. If the transfer does not meet the requirements for sale accounting under ASC 860, the fund continues to recognize the entire asset in its statement of net assets, and the proceeds from the transfer are presented as a liability or secured borrowings

within the statement of net assets. The fund continues to maintain effective control of the loan, and the loan continues to be serviced by the loan servicer originally elected by the fund.

3.08(c) **Repurchase Facilities (Warehouse financing)**: This type of leverage is typically facilitated through a Master Repurchase Agreement (MRA). ASC 860-30 defines an MRA as an agreement under which the transferor (repo obligor or seller) transfers a financial asset to a transferee (repo lender or buyer) in exchange for cash and concurrently agrees to reacquire that financial asset at a future date for an amount equal to the cash exchanged plus interest. The fund, as the repo obligor, will sell eligible loans to the lender with a simultaneous agreement by the lender to sell the loans back upon request of the fund on the related repurchase date. The fund can revolve eligible loans on and off the facility in accordance with the MRA. Repurchase facilities are typically partially recourse to the fund.

The fund (or transferor) shall continue to report the transferred financial asset in its statement of financial position with no change in the asset's measurement (that is, basis of accounting). In accordance with ASC 860-30, the fund can account for the sale of the loans under the MRA as secured borrowings, and the fund maintains effective control over the transferred loans and investments.

The accounting for noncash collateral by the obligor and the secured party depends on whether the secured party has the right to sell or repledge the collateral and on whether the obligor has defaulted. Noncash collateral shall be accounted for as follows:

- If the repo lender has the right by contract or custom to sell or repledge the collateral, accounting guidance requires that the obligor reclassify that asset and report that asset in its statement of financial position separately (for example, as security pledged to creditors) from other assets not so encumbered[5].

- If the repo lender sells collateral pledged to it, it shall recognize the proceeds from the sale and its obligation to return the collateral. The sale of the collateral is a transfer subject to the provisions of this Topic.

- If the obligor defaults under the terms of the secured contract and is no longer entitled to redeem the pledged asset, it shall derecognize the pledged asset as required by paragraph 860-30-40-1 and the repo lender shall recognize the collateral as its asset. See paragraph 860-30-30-1 for guidance on the secured party's initial measurement of collateral recognized. See paragraph 860-30-40-1 for further guidance if the debtor has sold the collateral.

- Except as provided in paragraph 860-30-40-1 the obligor shall continue to carry the collateral as its asset, and the secured party shall not recognize the pledged asset.

To provide an understanding of the nature and risks of short-term collateralized financing obtained through repurchase agreements that are accounted for as secured borrowings at the reporting date, a fund shall disclose the following information for each interim and annual period about the collateral pledged and the associated risks to which the transferor continues to be exposed after the transfer:

[5] 860-30-45-1

- A disaggregation of the gross obligation by the class of collateral pledged. An entity shall determine the appropriate level of disaggregation and classes to be presented on the basis of the nature, characteristics, and risks of the collateral pledged.

- The remaining contractual maturity of the repurchase agreements, securities lending transactions, and repurchase-to-maturity transactions. A fund shall use judgment to determine an appropriate range of maturity intervals that would convey an understanding of the overall maturity profile of the fund's financing agreements.

- A discussion of the potential risks associated with the agreements and related collateral pledged, including obligations arising from a decline in the fair value of the collateral pledged and how those risks are managed.

3.08(d) **Term loan financing**: Term loan financing provides leverage that is generally fully funded at origination and is secured by a single asset or portfolio for a predetermined term. Term loans may be structured as a pari passu tranche adjacent to a revolver or as stand-alone financings. A term loan enables the borrower to borrow a specific sum of money, which is repaid over an agreed-upon period, with fixed or floating interest rates and a contractual repayment schedule.

3.08(e) **Collateralized Loan Obligation (CLO) Securitization:** When appropriate, the fund may pool mortgages and other loans receivable in a trust, which is certificated, rated and generally sold to institutional fixed income investors as bonds (CLO Securitization or Securitization). The senior-most tranches of the trust are sold into the fixed income markets with the issuer (the fund) retaining the junior classes of bonds. Interest is paid to the senior bond holders first with all residual interest income from the loans paid to the junior classes. As loans are repaid, the principal is typically used to pay off the senior tranches first, then sequentially to more junior classes, which simultaneously reduces leverage and increases the weighted average cost of financing.

Risk retention rules, as set forth by the relevant federal regulatory agencies, may require the funds or financial institutions that securitize pools of CMBS or CLO mortgages to satisfy specific risk retention obligations related to the credit risk associated with those bonds. The risk retention interest may impact financial statements by requiring the identification and accounting for the retained risk, including potential impacts on valuation and disclosure. The rules also affect financial reporting by requiring specific disclosures about the retained risk and its impact on the CLO's financial position and performance.

3.08(f) **Financing costs**: Financing costs represent costs incurred in connection with obtaining fund or asset level leverage. For certain financing alternatives, this may include both a recurring advance fee and an advance fee paid to lenders whenever the loan investment is pledged to the facility. Usually, the advance fee is a percentage of the total loan commitment.

Upfront costs and fees related to financings for which the Fair Value Option is elected shall be recognized in earnings as incurred and not deferred[6]. The Fair Value Option under ASC 825-10 permits entities to elect a one-time option that is irrevocable to measure financial instruments including, but

[6] ASC 825-10-25-3

not limited to, notes payable and portfolio level debt at fair value on an instrument-by-instrument basis.

It is recommended that, subsequent to the adoption of the Fair Value Option under ASC 825-10, and for all entities that fair value these financing alternatives, the related financial costs are not deferred and continue to be fully expensed as a component of net investment income for those instruments that are measured at fair value.

For those entities that have not adopted the Fair Value Option under ASC 825-10, debt costs will continue to be deferred and amortized to interest expense using the effective interest method.

3.09 Current Expected Credit Loss (CECL) Accounting Guidance

Note: As outlined below within Section 3.09 (b), this section on CECL will not impact fair value reporting entities; however, it is included for completeness purposes or instances in which investments may be held at cost.

3.09(a) **ASC 326 CECL**: The FASB issued ASU 2016-13 to amend its guidance on the impairment of financial instruments. The ASU adds to US GAAP an impairment model known as the Current Expected Credit Loss (CECL) model, which is based on expected losses rather than incurred losses. The objectives of the CECL model are to:

- Reduce the complexity in US GAAP by decreasing the number of credit impairment models that entities use to account for debt instruments
- Eliminate the barrier to timely recognition of credit losses by using an expected loss model instead of an incurred loss model
- Require an entity to recognize an allowance of lifetime expected credit losses
- Not require a specific method for entities to use in estimating expected credit losses

3.09(b) **Applicability**: Financial instruments (including mortgage loan investments) that are measured at fair value with changes through the income statement are not subject to ASC 326, the current expected credit losses (CECL) standard. ASC 326 primarily applies to financial assets that are measured at amortized cost or at fair value through other comprehensive income (OCI). Therefore, the specific requirements and guidelines for estimating and recognizing credit losses under ASC 326 are not applicable to financial instruments measured at fair value with changes through the income statement.

3.10 Investment Advisory fees

3.10(a) General

Investment advisory fees may include acquisition, origination, asset management, disposition, financing, and incentive fees. These fees are generally paid by the fund to the manager and reflected in the fund's financial statements. However, if these fees are paid from the investor(s) to the manager directly, they may not be reflected in the fund financial statements, but should be disclosed in the footnotes.

3.10(b) Acquisition, Origination and Financing fees

Acquisition and origination fees paid to the manager by the fund generally compensate the manager for their services rendered in originating or acquiring mortgage loans receivable. These fees are generally expensed as incurred and reported as a component of net investment income.

Financing fees generally compensate the manager or a third-party advisor for their services rendered for a loan payable that the advisor arranges on behalf of the investment. These fees are generally expensed as incurred and reported as a component of net investment income.

3.10(c) Asset Management Fees

Asset management fees are generally expensed as incurred and reported as a component of net investment income.

3.10(d) Disposition Fees

Disposition fees may be paid when an investment is sold. The fee generally compensates the manager or a third-party advisor for services rendered in an investment disposition, including sales marketing, negotiating, and closing. As this fee is not earned until the work is performed or substantially performed, the fee is generally recognized as a cost of sale in the period in which the investment is sold and is not considered as a component of fair value prior to the sale date.

3.10(e) Incentive Fees and Promote Reallocations

3.10(e.1) Incentive fee arrangements and calculations vary widely and are governed by the fund documents, but generally these fees are paid after a predetermined investment performance return has been attained. For example, these fees may be payable upon, actual or constructive sale of an investment or portfolio, when cash flows from operating or capital distributions exceed some threshold, or at certain measurement dates during the hold period based upon a hypothetical sale of an investment or portfolio.

3.10(e.2) Incentive fees earned by the manager should be recognized as a payable as if all assets were sold and liabilities were settled at the date of the Statement of Net Assets. The calculation of the amount earned is specific to the related fund advisory agreement, but generally the calculation should assume that the investment or fund is liquidated at its fair value as of the reporting date and cash proceeds are distributed to the investors. An expense and liability should be recorded for the amount of the incentive fee, although not necessarily currently payable.

3.10(e.3) The related impact of recording a liability for an incentive fee should be either (1) Changes in incentive fees that result from meeting and exceeding operating result goals are expensed as a component of net investment income; or (2) Changes in incentive fees and promotes (carried interest) that are earned based on changes in an investment's fair value are recorded as a change in unrealized gain or loss.

3.10(e.4) Incentive fees recorded in the financial statements are generally either recorded: (1) within realized or unrealized gains, if the primary driver of the incentive is related appreciation of the investment, or (2) within net investment income, if the primary driver of the incentive is income based return.

3.10(e.5) Certain promote reallocations that would be due to a general partner or managing member in the manner of "carried interest" should not be expensed, but rather should be reflected as a reallocation of capital from the limited partners to the general partner in the Statement of Changes in Net Assets.

3.10(f) Related Party Fees and Affiliate Transactions

3.10(f.1) Related parties are defined in the glossary to the FASB Codification and include, but are not limited to, affiliates of the entity, principal owners of the entity, management of the entity, parties over which the entity has significant influence and parties that have significant influence over the entity. An affiliate is defined in the glossary as a party that, directly or indirectly through one or more intermediaries, controls, is controlled by, or is under common control with an entity. Affiliate loan administration or loan servicing arrangements for debt funds may fall into the scope of related parties.

3.10(f.2) Related party fees and affiliate transaction arrangements should be properly disclosed in the financial statements, regardless of how significant or quantitatively immaterial the amounts involved are. The investment manager should seek to provide full transparency to fund investors regarding all fees and arrangements where an affiliate entity provides services or is otherwise involved in a particular fund or separate account.

Per the AICPA Investment Company Guide paragraph 7.118, "Amounts paid to affiliates or related parties (such as advisory fees, administration fees, distribution fees, brokerage commissions, and sales charges) should be disclosed, in accordance with FASB ASC 850. Significant provisions of related-party agreements, including the basis for determining management, advisory, administration, or distribution fees, and, also, other amounts paid to affiliates or related parties should be described in a note to the financial statements."

3.10(f.3) ASC 850 also states that transactions between related parties are considered to be related party transactions even though they may not be given accounting recognition. For example, an entity may receive services from a related party without charge and not record receipt of the services. While not recorded, their disclosure is required, nonetheless. Refer to the related party fees and affiliate transactions footnote in the illustrative financial statements.

VALUATION

The purpose of the Valuation section of the Manual is to provide clarification and guidance on valuation issues and policies that are specific and unique to debt and credit funds. As such, the Manual will not include established guidelines set forth by other governing bodies or professional valuation or appraisal organizations; however, such guidelines or reporting and ethical requirements may be referenced when applicable.

4.01 Key Concepts

Market participant behavior establishes fair value.

Fair value is a market-based measurement, and when valuing debt investments, market participants should take into account the perspective of similar investors in the relevant market for the same investment. It is measured using the assumptions that market participants would use when pricing an asset or liability, including assumptions about risk.[7]

Market participants often include similar investors.

When valuing debt investments, market participants often include similar investors in the relevant market for the same investment. For instance, when valuing debt investments (i.e., loans valued from the lender's perspective), market participants may include other lenders in the same market. As a result, entities that are investors in a financial instrument should measure fair value from the perspective of a market participant that holds the asset.[8]

Valuation conclusions should consider relevant exit scenarios.

The objective of fair value measurement is to estimate an exit price as of the reporting date from the perspective of a market participant that holds the asset or owes the liability. Understanding future exit scenarios may be helpful when considering "the assumptions that market participants would use when pricing the asset or liability, including assumptions about risk."[9]

Fair value measurement requires judgement.

A fair value measurement should consider relevant calculations and scenarios that a market participant would consider in evaluating the debt investment. Assessing the significance of any input requires judgment, considering factors specific to the investment. Further, "the availability of relevant inputs and their relative subjectivity might affect the selection of appropriate valuation techniques." In some cases, a thoughtful reconciliation of multiple calculations or scenarios may be the most appropriate fair value conclusion.[10]

[7] ASC 820-10-05-1B
[8] ASC 820-10-05-1C, ASC 820-10-35-16H
[9] ASC 820-10-05-1C, ASC 820-10-35-53
[10] ASC 820-10-35-38, ASC 820-10-35-2B

Most Likely Cash Flows

Cash flows

When valuing a debt investment, the schedule of cash flows used in an application of the income approach will usually represent what is most likely to occur after a review of contractual terms and expectations about possible variations in the amount and timing of payments. However, as described above, judgement should be exercised, and in some cases, a thoughtful reconciliation of possible cash flows from multiple calculations or scenarios may be the most appropriate method to determine the schedule of cash flows to be used.

Loan economics

The loan documents (normally the loan agreement and/or promissory notes, including any amendments) should contain the key economic data that defines the future contractual cash flows for the loan. For example, information needed to model the contractual cash flows for a fixed-rate loan may include the origination date, maturity date, payment frequency, day-count convention, payment dates, prepayment information, principal amount, amortization information, and as applicable, the fixed-rate coupon, floating rate coupon (spread over margin), and origination, extension, exit, and other fees.

Expectations about possible variations

After consideration of contractual loan economics, adjustments may be needed to represent what is most likely to occur. The most likely cash flow may change over the life of a loan depending on different facts and circumstances. Examples of possible variations that should be considered include anticipated early prepayment, contractual amendments, extension options, forbearance agreements, expected missed payments or in some cases exercising the right to step into equity ownership (via foreclosure, deed-in-lieu, or otherwise). In all cases, the cash flows used to determine fair value should be attributable to the financial asset or liability being measured, and they should be reflective of assumptions that market participants would use when pricing the asset or liability.[11]

Valuation Principles

The valuation of most debt investments employs an income approach, which considers the contractual cash flows of the investment and a market discount rate. In some situations, the par value approach is employed as described below in section 4.05. The following is a summary of valuation principles for debt investments commonly utilized by debt funds.

- Cash flows and assumptions must be measured from the perspective of a debt investor (not the borrower).
- A discounted cash flow valuation method discounts cash flows at a market interest rate.
- Market interest rates should be based on observable market data and reflect prevailing interest rates, considering factors such as underlying property type, credit metrics, remaining term/duration/average life, and advance rates.
- The term of the cash flows should represent what is expected to most likely occur over the life of the asset including considerations to prepayment terms, extension options, and the assumed maturity date of the debt investment.

[11] ASC 820-10-55-6

There may be situations for which valuation is determined using a market approach, for example when the loan is nonperforming as described in section 3.03 Nonperformance below. Fair value measurements must reflect the price that is expected to be paid by a market participant to purchase the debt asset and should be tested against market evidence.

A written Valuation Policy, including methods and procedures, must be maintained and consistently applied. The Valuation Policy must:

- Include definitions of internal roles and responsibilities for the execution and governance of the valuation process
- Describe the frequency of internal and external valuations
- Describe independent valuation process oversight (internal or external) including the review and approval of final values, as well as diligence applied to appraiser selection where relevant
- Identify and source (or define) the relevant applicable professional standards of the valuation process
- State whether liabilities are valued
- Address value acceptance and dispute resolution procedures.

4.02 Frequency and Timing of Valuations

Debt Investments

Valuation of debt investments supporting fund net asset value (NAV) must be calculated in an objective and competent manner by qualified professionals. The fair value analysis can be accomplished by internal staff, third-party service providers, or a combination thereof; although, the fund type or investment vehicle should be considered as described in Assets, Liabilities, and Net Asset Value (NAV) below.

Valuations of debt investments prepared by third parties must be performed in conformance with applicable laws and regulations by properly credentialed professionals. Valuations prepared by internal staff should include appropriate research and analysis sufficient to result in a credible conclusion. Internal valuations should be prepared in a transparent environment, supervised by competent credentialed professionals, and documented in a manner sufficient to permit a review of results whereby steps leading to specific valuation outcomes can be verified.

Internal valuation analysis and documentation can be prepared by the fund manager/GP; however, reporting, approval, and oversight responsibilities should be managed by individuals or committees with independence, and compensation of these individuals should not be tied to changes in valuation of assets for which they have responsibility. Both internal and external research resources should be regularly consulted as a further means of promoting accuracy in the valuation process.

The timing and frequency of fund valuations should align with several factors, including timing and frequency of financial reporting, performance measurement needs (e.g., industry benchmarking), and both the timing windows for contributions and redemptions, as well as the specific type of fund or investment vehicle. The overriding principle is to align the frequency of valuation with the fund's most frequent valuation reporting requirements, which is at least quarterly or annually per industry best practice. Open-end funds typically obtain external valuations on a quarterly basis; although, internal valuations are also appropriate. Closed-

end funds may obtain either internal or external valuations on debt investments with external valuation timing determined by the fund's governing documents.

Underlying Real Estate Collateral

The underlying real estate collateral valuation should be prepared by an independent appraiser prior to the loan origination. For debt investments in the form of syndicated loans, mortgage-backed securities, and other such structures, an appraisal of the underlying real estate collateral is obtained by the originator closing the loan and is generally shared with investors, like a debt fund investor. It may be impractical for the debt fund to obtain a new appraisal, and therefore, is not required.

After origination or investment, reasonable judgement should be exercised to determine the frequency and level of valuations (i.e., ranging from internal update to new, external MAI appraisal). Ongoing credit monitoring of relevant factors such as market conditions and property performance, without limitation, should be conducted to determine if the most recent value disclosed in reporting to investors, benchmarks, or other relevant interested parties remains supportable. Internal and/or external valuation updates should be conducted at the earliest of a) the period in which ongoing credit monitoring suggests a potentially meaningful change to value of the collateral or b) the fund policy's stated valuation frequency. The overriding principle is to ensure that real estate collateral values result in loan-to-value calculations that support investors' understanding of risk. Real estate collateral is typically externally valued at least annually.

REO properties should be valued at fair value and prepared by an independent appraiser at the time of acquisition or transfer. Valuation principles of REO are addressed in section 4.03 Nonperformance below, which further references principles outlined in the *Reporting Standards Handbook Volume II – Valuation Manual.*

4.03 Nonperformance

This section provides a framework to establish valuation procedures for nonperforming debt investments.

A valuation policy should proactively address nonperformance scenarios. The fair value treatment of nonperforming investments should be aligned with general valuation principles, periodicity and other definitions dictating the valuation of all fund investments; however, nonperformance may call for more expansive valuation methodologies, potentially including a thoughtful reconciliation of various outcomes.

Stages of nonperformance

For debt investments secured, directly or indirectly, by commercial real estate, metrics such as loan to value, debt yield, debt service coverage ratios, and internal risk ratings are often used to monitor credit risk. The risk of nonperformance increases as one or more of these performance metrics deteriorate, leading to a higher likelihood of outcomes other than the underwritten contractual cash flows and maturity repayment. Examples of nonperformance include:

- Debt service coverage ratio or debt yield falling materially below business plan, which may or may not represent a technical default;
- Property value falling below the principal balance through the last dollar (i.e., below the principal balance of all secured and mezzanine debt);

- Indications that a borrower will not satisfy an upcoming liquidity event, such as final maturity, a required partial paydown due to financial covenants, a required purchase of a replacement cap with a low strike, or the required funding of a reserve account.
- Maturity or debt service default; and/or
- Event of default as defined by the loan documents, if material.

Methodology Considerations

Regardless of performance, debt valuations should begin with modeling the most likely cash flows and determining the market yield for the investment given its term, credit risk level, etc. Upon identifying an investment having entered the stages of distress, a valuer must contemplate alternative investment outcomes and build upon the valuation methodology.

Depending on the stage of nonperformance, alternative investment outcomes may include:

- Discounted payoff with/without modification to the contractual principal and interest payments;
- Modification of the existing loan that may include extension of the maturity date, principal paydown, adjusted amortization schedule, and/or change in the coupon rate;
- Foreclosure and sale of the underlying real estate; or
- Deed in lieu of foreclosure and sale of the note or the underlying real estate.

Each of the alternative outcomes detailed above may result in different present-value implications. Additional due diligence should be performed to i) identify the probable outcome specific to the debt investment, ii) quantify costs to resolve the debt investment or liquidate the nonperforming collateral, and iii) employ a valuation methodology appropriate for such a scenario. For example, a non-performing loan due to an immaterial event of default may have a low probability of collateral foreclosure, making the assessment of collateral valuation less relevant. If nonperformance escalates, however, the value of the collateral will become crucial in estimating loan repayment proceeds, and a collateral analysis should be incorporated into the methodology.

Because there are several potential resolutions to a nonperforming debt investment, multiple valuation techniques may be used to measure fair value. Respective indications of fair value should be evaluated and considered in developing the reasonableness of the range of values indicated by those methodologies. The fair value measurement is the point within that range that is most representative of fair value under the circumstances.[12]

The stage of nonperformance will influence the principal market for the debt investment, which could include balance-sheet lenders, opportunistic debt investors, or equity investors intending to exercise rights to foreclose and own the collateral at a favorable cost basis. To accurately value debt investments, a reporting entity must include appropriate risk adjustments, such as a risk premium reflecting the amount that market participants would demand as compensation for the uncertainty inherent in the cash flows of an asset or a liability.[13]

[12] ASC 820-10-55-35
[13] ASC 820-10-35-54E

Additional due diligence by the valuer will be required to understand how market participants underwrite nonperformance outcomes and formulate their assumptions about risk.[14] Support for these assumptions can be derived from a few sources including, but not limited to, recent loan originations, secondary market loan transactions, discussions with market participants, and appraisals of the collateral.

Other valuation considerations

The valuation of nonperforming investments requires significant judgment. Below are additional factors that need to be contemplated for valuation of nonperforming debt investments:

Liquidation Value

Despite nonperformance, it is critical for a valuer not to conflate an orderly transaction with that of a liquidated value, which does not adhere to fair value definitions. Although a principal market for certain investments may result in fair value akin to liquidation pricing, determination of market-based valuation methodologies and assumptions of market participants remain critical to establishing fair value.

Collateral Valuation

The valuation of collateral should assume it trades in its principal market (among equity investors) and align with the date of measurement of the debt investment. For non-stabilized assets, an effective date and prospective value at stabilization should be estimated and reasonably derived. It is recognized that the lender may only have a contractual right to lagging or incomplete information from the borrower regarding the collateral performance, and thus, market-based assumptions may need to be employed in the valuation analysis.

Collateral values can be derived using methodologies appropriate to the inherent credit risk of the debt investment. For debt investments with moderate loan to value, the collateral value is a qualitative risk monitoring metric, rather than a valuation input. Therefore, an efficient valuation methodology (such as a Market Approach or Direct Capitalization Analysis) can be reasonably employed. As nonperformance risk escalates, the collateral value has a greater impact on the debt investment valuation, and an underlying collateral valuation should be performed.

Ownership Rights

While the collateral is valued as if trading in its principal market among equity investors, the ownership rights of a debt investment are not equivalent to those of equity ownership. A potential buyer of the debt investment may not obtain the full equity rights of the collateral position and therefore may reduce its purchase price for interim holding costs, such as legal fees, transfer tax and special servicing expense, timing of a potential foreclosure, senior debt payoffs, and risks involved in the assumptions.

Real Estate Owned (REO)

Treatment of REO should be outlined in the fund's valuation policy. Any valuation of REO should align with the principles outlined in the *Reporting Standards Handbook Volume II - Valuation Manual.*

[14] ASC 820-10-55-1C

4.04 Prepayment

Loan prepayment features allow the repayment of all or a portion of the loan's outstanding principal balance ahead of its scheduled maturity date. A loan prepayment is akin to a bond call feature in which the issuer (borrower) has the right to freely buy back the loan from the holder (lender) at a strike price that changes over time. Prepayment options are typically exercised if a) the credit quality of the borrower/collateral improves and the borrower is able to obtain a new loan with greater proceeds than the existing loan; b), the interest rate environment changes whereby the borrower is able to obtain a new loan at a lower rate that is more attractive than the cost to prepay the existing loan; or c) the borrower plans to sell the underlying collateral unencumbered.

Some debt prepayment terms may not include penalties for accelerated partial or full principal repayment, while others may include specific prepayment terms or penalties to compensate the lender for its financial loss due to premature repayment. Prepayment penalty structures can vary significantly depending on the lender, the type of loan, and other specific terms.

Types of Prepayment Features

The following are prepayment features and their respective penalty structures. The loan documents will specify the specific prepayment terms, if any, allowed under the loan:

- No penalty – Borrower may freely prepay the outstanding principal balance of the loan, either in full or in increments, without financial penalty.
- Fixed - Borrower pays a fixed fee or a percentage of the remaining loan balance if the loan is prepaid. This fee is agreed upon in the loan documents and is enforced regardless of when the loan is repaid during the term.
- Stepdown, Graduated, or Scaled – Borrower pays a penalty that decreases over time in a predetermined manner. For example, a common stepdown format for a loan with a five-year term might be 5% of the outstanding loan balance if prepaid in the first year, 4% in the second year, 3% in the third year, and so on.
- Yield Maintenance – Borrower pays a sum that equates to the present value of the remaining interest payments that the lender will lose due to early repayment. This penalty ensures that the lender receives a yield that is at least equivalent to what was originally agreed upon, even if the loan is prepaid. The discount rate and methodology used for calculating the present value will generally be specified in the loan documents. Many yield maintenance provisions provide for a minimum payment (e.g., 1% of the principal balance being prepaid), in case the yield maintenance calculation results in a small or negative yield maintenance payment owed.
- Defeasance – Borrower may substitute government securities for the underlying real estate collateral under the loan. The government securities are specifically selected to provide equivalent cash flows to match the contractual payments and any maturity balloon payments of the original loan. Upon defeasance, the borrower's real estate collateral is released as security from the original loan; the Borrower no longer has obligations under the original loan; and the Borrower is free to refinance or sell the property.

Cash flow Considerations

Cash flow forecasts should incorporate the probability and timing of loan prepayment with consideration of market participant views where appropriate. The determination of the most likely cash flows is dependent

on the specific terms of the loan documents and on the availability of reliable market data. Predicting mortgage prepayments may also be driven by factors such as interest rate environment, economic conditions, borrower characteristics, and loan characteristics including performance. In all cases, the cash flows should be reflective of assumptions that market participants would use when pricing the asset or liability.[15]

Valuation Considerations

The accuracy of prepayment predictions can influence the valuation impact of a particular loan, and assumptions used in the valuation model should be supportable. It is important to use valuation methods that reflect the behavior of typical market participants and are informed by observable inputs. It should be assumed the borrower acts in its own economic best interest, such as settling unfavorable liabilities if open to prepay. Any adjustments to observable market data should be explained and documented. The resulting schedule of cash flows used in an application of the income approach should represent what is most likely to occur. As described in 4.01 above, judgement is required, and in limited circumstances, loans with complex prepayment terms may necessitate scenario-based methods to reflect the most advantageous action taken by both the borrower and lender. Valuation techniques used to measure fair value should be applied consistently unless a change in a valuation approach is warranted and appropriately documented.

4.05 Valuations Equal to the Unpaid Principal Balance

The income approach framework is often used to determine fair value. Under the income approach, the fair value may be above, below, or equal to the unpaid principal balance, also known as the par value of the debt investment, depending upon factors such as the level of interest rates and the credit metrics of the debt investment. Specific circumstances and attributes of debt investments may support the application of the "par method" as an acceptable valuation technique. The par method posits that the fair value of the debt aligns with its unpaid principal balance, an easily observable input. In every case, the integration and weighting of the par method within the overall debt valuation should be considered a material assumption and, therefore, appropriately evaluated and documented.

Performing loans

Factors and situations that may warrant a partial or complete reliance on the par method for valuation purposes encompass, but are not limited to:

- *Loan remaining duration:* Short duration performing loans with a) shorter remaining terms (generally less than 12 months) and b) credit profiles that support payment at maturity are generally held at par. In these situations, most lenders do not view variations between contractual and market interest rates as meaningful because the shorter remaining term (calculated to contractual maturity or the start of an open, fee-free, prepayment period) does not drive a significant market adjustment.
- *Recent originations:* Recently originated mortgages (within one year) tend to be good representations of the market environment and are therefore more accurately valued by the par method. It is important to note that this only holds true where i) market conditions do not significantly change from rate lock, and ii) the collateral's performance and the borrower's credit

[15] ASC 820-10-55-6

worthiness remains consistent. Significant changes in market conditions would include material changes in interest rates and/or credit spreads for comparable new loan originations.

- *Contract Rate Favorability:* Mortgages in which the difference between the contract rate and the prevailing market interest rate is negligible (using professional judgment) may be more accurately valued via the par method. When valuing loans at par, documentation should include analysis demonstrating why market rates have not materially changed since origination or why prepayment economics render premium or discount valuations inapplicable.
- *Derisking and prepayment:* Investments that feature above-market contractual interest rates compared to the market environment (premium loans) should be evaluated for prepayment penalties. Premium loans that are open for prepayment without penalty may be marked to par as borrowers would generally refinance to market rate if they are paying more than the going market rate. It is important to note that other loan characteristics (mentioned above) should be evaluated in tandem with the presence of prepayment penalties to determine if par is the most appropriate conclusion.

Nonperforming loans

- *Impairment (nonperformance):* Where there are indications of nonperformance (i.e., missed or late payments) a par conclusion is most likely not an acceptable method of loan valuation. Refer to the sections on nonperformance and frequency and timing of valuations for further detail.

4.06 Origination, Extension, and Exit Fees

Origination Fees

For debt investments, origination fees are not generally factored into valuations. Origination fees are generally paid by borrowers at the origination of commercial real estate loans and do not impact cash flows beyond originations. Such fees are considered cash flows associated with the origination of the loans and earned at the time of origination or amortized over the life of the loan. Therefore, origination fees are not included in cash flows for loan valuations, which occur after a loan has been originated.

Extension Fees

For debt investments that are modeled past their initial maturity dates and extension fees are applicable, the extension fees should be factored into the valuation cash flows. Maturity date/repayment assumptions are based on the most likely scenario to occur. Extension fees that occurred in the past should not be factored into valuation cash flows.

Exit Fees

For debt investments, exit fees should generally be factored into the valuation cash flows. Exit fees are contractual fees that are detailed in loan documents and are generally paid by the borrower when loans are repaid. There may be certain circumstances in which exit fees are waived, for example, if the loan is refinanced by the same lender. Exit fees should only be considered in the valuation process if such fees are contractually owed and not contingent; contingent exit fees (i.e., triggered based on repayment date or return thresholds) should be excluded from valuation cash flows unless it's known with certainty that they will be paid. Contractually owed exit fees should be included in valuation cash flows based on the most likely scenario to occur.

It is acceptable for exit fees not to be modeled in valuation cash flows if they are accrued and accounted for by an internal accounting team, and this approach has been documented.

4.07 Financial Liabilities

Various leverage strategies may be utilized to enhance investment returns in private real estate debt funds, including financial and structural leverage. The most common forms of financial leverage include warehouse lines, repurchase agreements, CRE CLOs, and loan-on-loan financing. The use of financial leverage creates a borrowing obligation of the fund (or a subsidiary single purpose vehicle) and may be recourse or non-recourse to the fund. By contrast, structural leverage, such as subordinated or sold-off senior tranches, is not reflected on the fund's balance sheet as a direct borrowing obligation, and therefore, it is not subject to fair value.

Valuation Frequency

From the fund's perspective, when financial leverage is used, it creates a net position, which includes the original loan made to the borrower (asset) and the financing (liability) owed to the bank or other lender. In cases where the fund elects to also fair value its liabilities, the frequency of valuation should be the same for both the debt investments and the financings. It is industry practice for open-end funds to fair value financial liabilities at the same frequency as associated debt investments. Industry practice for closed-end funds or entities that present in accordance with ASC 960 may differ and some closed-end funds carry debt at historical cost (if they do not elect the Fair-Value Option as outlined within Section 3.08(f)). For all funds, industry best practice is that the fund's valuation policy (describing if-and-when liabilities are recorded at fair value) should be consistently applied by the given fund.

Valuation Principles

The following is a summary of common valuation perspectives and principles for financial leverage commonly utilized by debt funds, such as repurchase agreements, loan-on-loan, and CRE CLOs.

- Financial leverage must be measured from the perspective of a market participant, such as another lender.
- Industry practice is to value financial liabilities using a discounted cash flow method, where contractual debt service payments are discounted at a market interest rate.
- Market rates should be based on observable market data and reflect prevailing interest rates, considering factors such as property type, property cash flows, and advance rates.
- The term of the cash flows should represent what is expected to most likely occur over the life of the liability including considerations to prepayment terms, extension options, and the assumed repayment dates applied to the underlying debt investment.
- Fair value measurements must reflect the price that is expected to be paid by a market participant to assume the debt and should be tested against market evidence.
- For traded investments such as CRE CLOs, market pricing may be available from third-party providers. For CLO liabilities, especially for private CLOs without observable market prices, valuation should consider changes in CLO liability spreads for comparable tranches, weighted average life, and underlying collateral performance.

PERFORMANCE AND RISK

The purpose of the Performance and Risk section of the Manual is to provide clarification and guidance on performance and risk metrics at two levels: fund level and investment level. Relevant performance and risk measures will differ between the fund and investment level, and various fund structures (e.g., open-end, closed-end, SMAs) may employ different measures.

Disclaimers

The performance and risk metrics included in the Manual may not be appropriate for all fund investment structures and strategies, so it is up to the user to determine the applicability of each item as it relates to a given fund.

Contrasted with performance and risk measured for the market driven public investments industry, the input data that is used to calculate the various measures described in the Performance and Risk section of the Manual generally come directly from or can be derived from the entity's financial statements or fair value accounting books and records. The Reporting Standards require fair value financial statements prepared in accordance with GAAPAs noted in the Accounting section of the Manual, two financial reporting models exist and are used in practice. Although calculated NAV should be the same in either model, caution should be exercised when comparing performance results of components of NAV (e.g., net investment income, appreciation, expense ratios, etc.) prepared under different GAAP interpretations. Please see the Accounting section of the Manual for more details on financial reporting models.

Rate of return formulas reference certain accounting terminology that is generally applicable to fair value reporters using the operating model. Formulas may assume fees are vehicle expenses or in the case of a promoted interest, an equity allocation to the investment manager. To the extent that fees are paid directly by investors to the manager or where financial statements are presented under the non-operating model or other basis of accounting, certain adjustments and disclosures may be required to be consistent with the Reporting Standards.

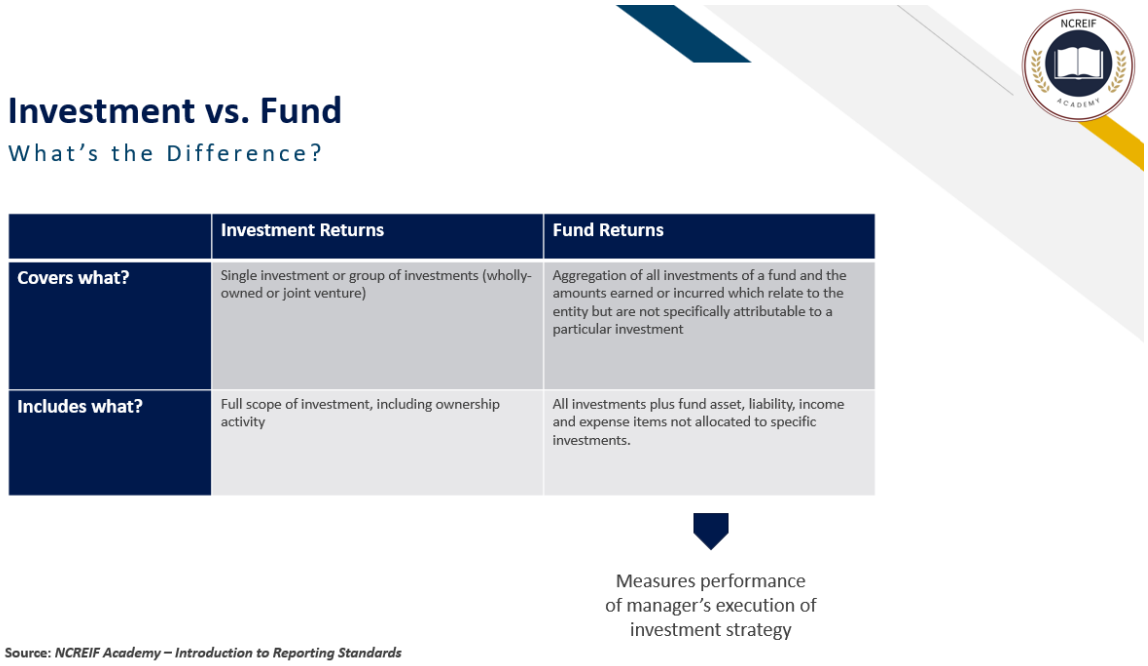
5.01 Structure of the Performance Section

The Performance and Risk section of the Manual is organized by metric type and level of reporting:

- Time-Weighted Return
  - Fund Level
  - Investment Level
- Internal Rate of Return
  - Fund Level
  - Investment Level
- Other Performance and Risk Metrics

Each section contains narrative explanations and calculation formulas.

The following table highlights the differences between investment returns and fund returns.



5.02 Performance Measurement

Time-Weighted Return (TWR)

Overview

A time-weighted return (TWR) is a rate of compound growth adjusted to eliminate the impact of external flows, typically expressed on annualized terms. Mathematically, it is the compound growth rate of a single dollar invested at the start of the investment period compounded by the rate of return calculated during each measurement period. TWRs, or more specifically, chain-linked Modified Dietz returns, are commonly used to measure the performance of a fund or investment and are a type of day weighting methodology accepted under GIPS. By chain-linking or compounding individual period returns, the TWR formulas remove the timing effect of cash contributions and distributions from the entity's performance. Generally, TWRs are used to compare manager performance because TWRs provide a consistent view of overall performance, which is ideal when investor cash flows vary over time. By focusing on asset performance alone, a TWR allows investors to evaluate performance unaffected by investor cash flow timing.

All TWR formulas are built in a similar manner, with a numerator and denominator deriving a single period rate of return. The numerator generally represents some measure of the change in performance of the entity over the measurement period (e.g., income, appreciation, etc.). The denominator represents a measure of the entity's average size over that same period (e.g., weighted average net asset value).

A technical point worth remembering: "Time-weighting" refers to the process of linking multiple periodic rates of return together. Hence, the rate of return for a single period should not technically be referred to as a time-weighted rate of return. In fact, the popular Modified Dietz method, which is the basis for the single period rate of return used in real estate, is an IRR approximation for that single period. It is the chain-linking of periodic Modified Dietz returns, a process that results in a (multi-period) "time-weighted" rate of return.

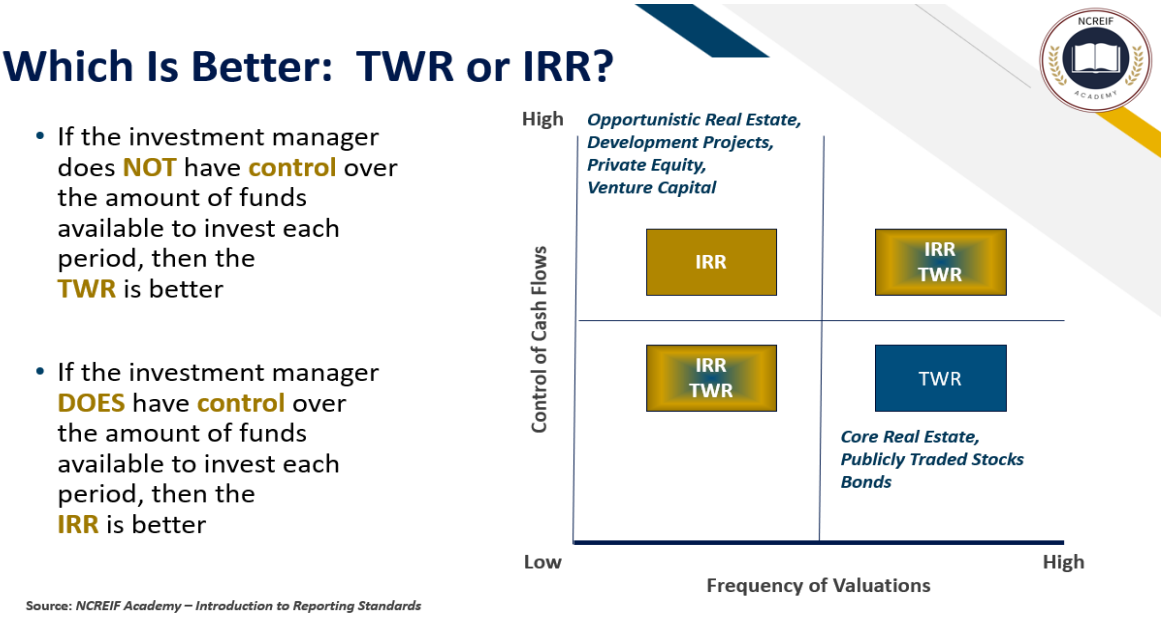
Open-End Funds – TWR is the preferred performance measurement calculation for open-end funds. TWR may be calculated at the investment level for certain real estate debt investments, like CMBS, CLO, or REIT debt securities. The calculation methodology for calculating fund and debt investment level TWR is the same. It is not meaningful to calculate TWR at the collateral (property) level for debt investments because although the collateral may secure the debt investment, the property is not the asset owned by the investor.

A fund level TWR is the aggregation of all investments made by the entity and the amounts earned or expenses incurred that relate to the entity but are not specifically attributable to a specific investment. Fund level TWRs are very broad in nature and capture all activity, which includes but is not limited to, income and expenses applicable to the fund, taken as a whole, such as audit and valuation fees, interest income, and leverage expenses. The fund TWR measures the performance of the investment manager in terms of how well the management team performed its specified strategy. Fund level TWRs are usually presented on a levered basis if the debt fund employs fund level leverage or asset specific leverage. Fund TWRs are typically presented before and after-fees (e.g., management fees and incentive fees) and promote (e.g., carried interest) and include the impact of leverage, cash, and other assets and liabilities.

The standard time frame for computing debt fund sub-period TWRs is the quarter given that debt investment valuations are generally performed quarterly. More frequent periods (daily or monthly) can also be used assuming the valuation cycle matches the sub-period. In the U.S., although daily and monthly valuations for private real estate debt funds are becoming more common, the quarter remains the most used sub-period.

Closed-End Funds – TWR is not typically calculated for closed-end funds because the investment manager has greater control over the amount and timing of the fund's cash flows, relative to an open-end fund in which investors may contribute or redeem at their own discretion, and the manager does not control when investor cash enters or exits their funds. IRR is a return calculation method that considers the investment manager's control over fund cash flows and is, therefore, more appropriate for closed-end funds.

The table below provides considerations as to when TWR vs IRR may be more appropriate:



Component Returns

When presenting TWRs, it is industry best practice to provide component returns classified as income and appreciation. When component returns are presented for a full quarter, the sum of the income return plus the appreciation return will generally equal the total return for the given quarter. When component returns are geometrically linked to create cumulative compounded returns, the simple addition of the cumulative compounded income return plus the cumulative compounded appreciation return will not usually equal the cumulative compounded total return. Presenting returns with each component separately linked is acceptable and appropriate industry practice.

It is noted that the classification of total return into income and appreciation component returns may vary in practice due to differing accounting and performance policies. As variations in accounting practices exist, it may be difficult to compare component return performance across managers with different policies. Care should be taken when analyzing fund and investment level component TWRs.

Additional Disclosures

When presenting TWRs, the following disclosures are also presented.

- **Gross of fees**: Clearly disclose the types of fees deducted from the gross return to arrive at the net return.
- **Net of fees**: Clearly identify the net of fees returns presented for all investor classes. In situations in which fees are billed separately and/or when different fee arrangements exist for investors, reporting must disclose the impact of these fees on TWR expressed, at a minimum, as a basis points range.
- **Periodicity and presentation period**: Reporting must include a single gross of fee and a single net of fee current quarter result, as well as gross of fee annual TWRs for periods 1, 3, 5, 10 years, and since inception (as time periods are available) as of each reporting date. Other relevant interim annualized periods and/or net of fee cumulative periods should be provided as requested by investors. Since-inception results should only be provided if they consist of five or more geometrically linked quarterly period TWRs. When presented, interim period returns must be provided using consistent methodology.
- **Calculation methodology**: The performance returns should use rate of return methodology that adjusts for daily weighted external cash flows (e.g. Modified Dietz) to produce returns. Returns must be geometrically linked and periods of greater than one year must be annualized. The methodology used to calculate TWR must be disclosed in the footnotes of the reporting.
- **Valuation and accounting policy and fees**: For each period presented, the valuation policy, types of fees, and basis of accounting must be disclosed. In addition, methodology used to record fees (i.e., capitalized or expensed or billed separately outside of the fund or SMA) and the effect on the gross and net of fees performance calculations must be disclosed.
- **Activity before initial contribution**: If a fund or SMA commences operations prior to the initial cash contribution from the investors (e.g., a line of credit is used to finance 100% of initial operations), the nature of such activities and the treatment for performance must be disclosed.
- **TWR start date and end date**: Disclose the start date and end date used for the inception-to-date return and the treatment of partial period activity (i.e., included or excluded).

TWR Calculations

As noted above, the formula for calculating fund and investment level TWR is the same, and the formulas below apply to both.

Gross fund level TWR (before-fees)

Gross income return (before-fees)

$$\frac{NII + AF + IFE}{NAV_{t-1} + TWC - TWD}$$

Gross appreciation return (before-fees)

$$\frac{\text{Investment appreciation} + \text{Liability appreciation}}{NAV_{t-1} + TWC - TWD}$$

Gross total return (before-fees)

$$\frac{NII + AF + IFE + \text{Investment appreciation} + \text{Liability appreciation}}{NAV_{t-1} + TWC - TWD}$$

Net fund level TWR (after-fees)

Net income return (after-fees)

$$\frac{NII}{NAV_{t-1} + TWC - TWD}$$

Net appreciation return (after-fees)

$$\frac{\text{Investment appreciation} + \text{Liability appreciation} - IFC}{NAV_{t-1} + TWC - TWD}$$

Net total return (after-fees)

$$\frac{NII + \text{Investment appreciation} + \text{Liability appreciation} - IFC}{NAV_{t-1} + TWC - TWD}$$

Input Definitions

NII = Net investment income (after interest expense from liabilities, advisory fees and expensed incentive fees)
AF = Advisory fee (investment management) expense
IFE = Incentive fee expense and promote
IFC = Change in capitalized incentive fee and promote
NAV_{t-1} = Net asset value of investment at beginning of period (includes unrealized and realized losses on investments)
TWC = Time-weighted contributions
TWD = Time-weighted distributions

Internal Rate of Return (IRR) Overview

The internal rate of return (IRR) is perhaps the most widely accepted performance measure for strategic decision making for closed-end funds, whether reported at the individual investment level or the fund level, and in all cases, over a relevant holding period(s). Open-end funds do not typically calculate IRR; however, IRR may be calculated at the investment level for debt investments held by open-end funds as discussed below.

The IRR is the annualized implied discount rate that equates the present value of entity cash inflows to the sum of the present value of all entity cash outflows plus the present value of unrealized assets still held in the portfolio. Said differently, the IRR is the discount rate that (i) at the investment level, equates the cost of an investment with the present value of the cash generated by that investment, and (ii) at the fund level, equates the invested capital (contributions) to the present value of all returns (realized and unrealized distributions). IRRs are commonly used in the investment industry to measure the performance of a closed-end entity where the manager controls the timing of investor cash flows, and where the investor cannot unilaterally exit the fund via redemption (contrasted with TWRs, which are used to measure performance of the investment manager without regard to timing and size of investor cash flows).

The IRR is:

- A type of "money-weighted" return - an IRR "follows the money" meaning the timing of the investor's cash flows do impact the IRR formula unlike with a TWR.
- The discount rate that results in the net present value of all future cash flows being equal to of zero.

The IRR formula discounts cash flows F_1 through F_n back to the initial cash flow, F_0.

$$F_0 + \frac{F_1}{(1+IRR)} + \frac{F_2}{(1+IRR)^2} + \frac{F_3}{(1+IRR)^3} + \ldots + \frac{F_n}{(1+IRR)^n} = 0$$

Input Definitions

F_O = Original investment in the entity
F_1 - F_n = Net Cash Flows for each applicable period entity not liquidated
F_n = Last period's operating cash flows plus an estimate of the net residual value

The IRR is often derived using a financial calculator such as the IRR and XIRR functions in Excel.

Gross and Net Fund Level IRR

Gross fund IRR is the fund's rate of return prior to certain deductions (fund costs, expenses, management fees, manager promote, or a combination of these items). The net fund IRR reflects the rate of return after deducting various levels of fees and expenses, gross and net fund IRR should be presented pursuant to a hierarchal approach to account for the different levels of fees and expenses coupled with clear disclosures to provide transparent performance reporting. As noted in the paper "*Reporting Standards: Gross and Net IRR: Adding transparency and comparability to closed-end fund performance and investor specific reporting"*[16], reporting can be completed at various "levels" depending upon the reporting purpose.

[16] Research Paper: Gross and Net IRR, August 2019 (https://reportingstandards.info/wp-content/uploads/2020/09/rs-handbook-vol-ii-research-gross-and-net-irr.pdf)

A summary of the levels (i.e., hierarchy) is presented below.

Fund Level Reporting Hierarchy

Level 1: Gross IRR before investment management fees and fund costs. Level 1 should be presented net of investment level expenses.

- The Level 1 IRR can be calculated using two methods:
  - Level 1a – IRR reflects cash flows between a fund and its investments. As such, the IRR start date will precede or coincide with any subscription lines drawn.
  - Level 1b – IRR reflects cash flows between investors and the fund.

Level 2: Fund Gross IRR after deduction for fund costs but before deduction of recurring, transactional and performance-based investment manager fees and promote (carried interest).

Level 3: Level 2 less ongoing, recurring management fee

Level 4: Level 3 less performance-based investment management fees and promote (carried interest). This level represents the investor's return (i.e., Limited Partner (LP)). It does not represent the return of the fund's General Partner (GP). Level 4 is the fund level net IRR.

Investor Specific Reporting Hierarchy

Level 5: Individual LP specific reporting that captures the experience of a single investor, including all investor specific timing, fees, and costs.

Relationship to Total Global Expense Ratio (TGER)

Irrespective of whether Levels 1a or 1b are utilized as a measure of IRR, Levels 2 through 5 consider the same elements of fees and costs that are considered for calculating the Total Global Expense Ratio (TGER). The associated definitions for terms included in each TGER category can be found in the Global Definitions Database. Please refer to the TGER discussion below and also note that TGER is an annual measure where IRR considers TGER elements over the entire period of the IRR calculation. Therefore, the amounts may not be the same.

Investment Level IRR

Debt investment level IRRs provide information on how the performance of a single investment contributes to the performance of the fund taken as a whole. At the debt investment level, the inputs for the IRR formula are based on cash flows to and from the fund itself. Debt investment level IRRs can be calculated on a leveraged or unleveraged basis.

Unleveraged Debt Investment IRR

The initial cash flow for the unleveraged IRR calculation is the amount that is funded for the debt investment (the gross investment, before leverage is considered), which should include the outstanding principal balance and if applicable, any premium or discount for loan purchases, origination fees, and debt investment acquisition costs. It is industry practice that for newly originated loans, certain debt acquisition costs (also known as origination expenses) such as legal fees for loan documentation, third party reports (appraisal, environmental, and property condition reports), title, etc. are generally paid by the borrower, and thus would not be included in the IRR calculation since they are not an outflow by the investor. The Accounting section of this Manual discusses the accounting treatment for acquisition costs.

Other cash flows over the life of the debt investment may include additional loan fundings, amortization of principal, interest payments, fees paid by the borrower, loan maturity payments, participation sales (participation mortgages only), and realizations from REO properties. Net inflows are depicted as a positive cash flow while net outflows are shown as negative cash flows in the calculation. Investment level IRR calculations are typically calculated on at least a monthly basis.

The terminal cash flow is the loan repayment by the borrower if the debt investment has matured or prepaid. If the debt investment has not been repaid, the terminal cash flow will be the fair market value of the debt investment.

Leveraged Debt Investment IRR

The initial cash flow is the amount of equity capital that is funded for the debt investment (net of leverage), which should include the outstanding principal balance (net of leverage) and if applicable, any premium or discount for loan purchases, plus debt investment acquisition costs, less initial leverage balance (i.e., only reflect the net investment made by the fund).

Other cash flows over the life of the debt investment may include additional loan fundings, amortization of principal, interest payments, fees paid by the borrower, loan maturity payments, participation sales (participation mortgages only), and realizations from REO properties. Net inflows are depicted as a positive cash flow while net outflows are shown as negative cash flows in the calculation. In addition, new leverage placed on a debt investment after funding is treated as a positive cash flow in the calculation. Investment level IRR calculations are typically calculated on at least a monthly basis.

The terminal cash flow is the net loan repayment by the borrower (after the leverage repayment amount), if the debt investment has matured or prepaid. If the debt investment has not repaid, the terminal cash flow will be the fair market value of the debt investment less its respective leverage. The method for including leverage (i.e., fair value or cost) should be consistent over time and disclosed.

Additional Disclosures

When presenting IRRs, the following disclosures should be included:

- **Gross of fees**: Clearly disclose the type of fees deducted from the gross return and the level of gross IRR reporting. Level 1a, 1b, or 2 is preferred for gross of fee reporting.
  - Level 1a: Gross IRR before investment management fees and fund costs. Uses cash flows between the fund (regardless of cash source) and its investments.

  - Level 1b: Gross IRR before investment management fees and fund costs. Uses cash flows between investors and the fund.
  - Level 2: Fund Gross IRR after deduction for fund costs but before fees. Uses cash flows between investors and the fund after deduction of fund costs but before fees.
- **Net of fees**: Clearly disclose the types of fees deducted from the gross return to arrive at the net return. Clearly identify the net of fees returns presented for all investor classes. In situations where fees are billed separately and/or when different fee arrangements exist for investors, reporting must disclose the impact of these fees on IRR expressed, at a minimum, as a basis points range.
- **Time period and frequency of cash flows**: Disclose (a) the period for the calculation; and (b) the frequency of the cash flows used in the calculation. At a minimum, quarterly cash flows must be utilized.
- **Realized IRR end date**: Disclose the ending date of the realized IRR calculation. If final net assets of the fund/debt investment have not been distributed when the last investment is sold or otherwise disposed, the method used in determining the final distribution and IRR end date must be disclosed.
- **Use of subscription lines**: When subscription lines are used, disclose the date of the first investment of the fund or SMA and the date of the first capital call.

Multiples

Overview

Multiples are metrics that generally measure the amount earned on invested capital without the consideration of time such as the holding period of the investment. Given that multiples are expressed as ratios, with one financial input in the numerator and another in the denominator, they may require less time and financial data to calculate than IRR returns. Multiples can be presented independently, but they are commonly reported with IRRs. Equity multiples and IRRs are complimentary in that equity multiples simply measure the amount earned while IRRs consider not only the total earnings but also the time required. Non-performance multiples include the paid-in-capital multiple that measures the percentage of total investor capital that has been drawn down for investments.

Open-End Funds – Open-end funds typically report TWRs and do not typically calculate multiples.

Closed-End Funds – Closed-end funds calculate multiples since inception of the entity rather than a discrete period (month, quarter, etc.). Fund level multiples are always presumed to be shown after all fees and carried interest unless stated otherwise.

Recallable / Recycled Capital

Through the standard course of investment in a closed-end fund, investors may receive distributions from investments during the fund's defined investment period. If allowed within the fund documents, the manager can call this distributed capital down a second time for further use. This is considered recycled or reinvested capital because it was initially contributed to the fund by the investor, later returned as a distribution from the fund back to the investor, and then potentially re-contributed by the investor to be used towards a subsequent investment.

Accounting for recallable capital within reported equity multiples requires additional consideration as to how the re-contribution is handled from an accounting perspective. While recycling capital includes a recontribution of capital, there are times when the capital never leaves the fund before it is contributed to a

new investment. Managers must choose how to present the equity multiple as the total contribution of capital will not be picked up from an investor perspective if the recallable capital is not distributed back to investors before being called back. The most conservative approach would be to consider any re-contributed capital as a new part of the denominator as this would be a "dollar being used again." This can be challenging depending on how the accounting relating to the recalled capital is done; if the capital never leaves the fund, there may need to be an outside adjustment to be able to accurately reflect the contribution when it is recalled. The method for accounting for recallable capital in calculating equity multiples should be consistent across time and disclosed.

Investment Multiple or Total Value to Paid-In Capital Multiple (TVPI)

This investment multiple gives users information regarding the value of the fund relative to its cost basis, not taking into consideration the time invested. TVPI is equal to the sum of the total distributions since inception plus the fund's residual value divided by the total capital called since inception. As an example, a fund level TVPI multiple equal to 1.50 typically indicates that the investors have $1.50 of value in the fund (including distributions previously received) for every $1 invested.

Paid-In Capital Multiple or Paid-In Capital to Committed Capital Multiple (PIC)

At the fund level, this ratio gives information regarding how much of the total investor commitments have been called. The paid-in capital is the aggregate amount of committed capital transferred to a fund by investors. For a fund level PIC, typically a ratio such as 0.80 is read as 80% of the fund's capital commitments have been contributed by investors.

Multiple Formulas

Paid-In Capital Multiple or Paid-In Capital to Committed Capital Multiple (PIC)

$$\frac{PIC}{CC}$$

Investment Multiple or Total Value to Paid-In Capital Multiple (TVPI)

$$\frac{TV}{PIC}$$

Realization Multiple or Cumulative Distributions to Paid-In Capital Multiple (DPI)

$$\frac{D}{PIC}$$

Residual Multiple or Residual Value to Paid-In Capital Multiple (RVPI)

$$\frac{RV}{PIC}$$

Input Definitions

PIC = Paid in Capital; All capital drawn down including the amount recalled.

CC = Committed Capital
Fund Level: Cumulative fund PIC plus unfunded capital commitments.
Investment Level: Cumulative investment PIC plus unfunded capital earmarked for investment.

TV = Total Value
Fund (or SMA) Level: Sum of residual fund net assets (NAV) plus aggregate fund distributions to investors since inception.
Investment Level: Sum of residual investment net assets (NAV) plus aggregate distributions to investors / the fund / SMA which were attributed to the investment.

D = Total Distributions
Fund Level: Aggregate fund distributions paid to investors since inception.
Investment Level: Aggregate investment distributions paid to the fund since inception.
Note that distributions since inception within the Reporting Standards include all distributions paid regardless of type (i.e., operations and return of capital).

RV = Residual Value
RV is defined as NAV representing the remaining equity of a fund or investment.
Fund Level: Net asset value (NAV) of the fund.
Investment Level: Net asset value (NAV) of the investment.

Total Global Expenses Ratio (TGER)

TGER is a principles-based measure that was developed to facilitate comparison of fees and costs among investment funds that operate across different regions of the globe. The fees and costs included in TGER are all components of the fund's expense load. TGER was developed in collaboration with INREV, ANREV, and the Reporting Standards.

Although rooted in authoritative guidance and industry standards, TGER is not meant to be prescriptive, thus diversity in practice may occur as with application of any principles-based guidance. TGER is a stand-alone metric and does not conflict with other industry standards that include fee and expense information required by GAAP, such as Related Party disclosures and expense ratios in financial statement statements. Although these expense ratios may be similar in some ways to TGER, the components of the GAAP ratios may be different.

A historic TGER based on the time-weighted average gross asset value of the fund over 12 months is typically to be reported annually. A prior year comparison of fees and costs may be reported quarterly. For closed-end funds, TGER is best considered over a longer time horizon and accordingly, in addition to annual reporting of TGER, a since-inception TGER may also be reported to show the trending of the expense burden over time or at any given point within a fund's lifecycle. A since-inception based TGER must be clearly labeled and include the date of inception.

Note that definitions for all fees and costs are included in the Global Definitions Database.

TGER Formula

$$\frac{MF + TF + PF + VC + VT}{\text{Time Weighted Average GAV}}$$

Input Definitions

Fees Charged by the Investment Manager

MF = Ongoing Management Fees – Fund and asset management fees charged by the investment manager for services regarding the everyday running of the vehicle and its portfolio.

TF = Transaction Based Fees – Fees charged by the investment manager for services regarding the acquisition/disposition of investments.

PF = Performance Fees – Fees charged by the investment manager after a predetermined investment performance has been attained.

Costs Charged by Third Parties

VC = Vehicle Costs – Third party costs incurred predominantly at the vehicle level to maintain and grow its operations.

VT = Vehicle Related Taxes – Expenses related to the tax structure and position of the vehicle.

Ratio Denominator

GAV = Gross Asset Value – Total assets as determined by the vehicle's accounting standards, e.g., US GAAP, IFRS, and adjusted for specific elements to arrive at a market-relevant gross asset value in accordance with INREV Guidelines/NCREIF PREA Reporting Standards.

Appendix A2 of the Reporting Standards Handbook Volume II: Manuals Performance and Risk provides details of fees and costs within each TGER category. The TGER fees and costs categories for real estate debt and equity funds are similar; however, the following category adjustments may be needed for debt investment: i) Replace Property acquisition/disposition fees with Investment acquisition/disposition fees, if any, and include in TGER; ii) Replace Property management fees with Servicing/Special Servicing fees and exclude from TGER; iii) Add borrower paid fees, if any, that are retained by the investment manager and not contributed to the fund (e.g., commitment, application, underwriting fees) and include in TGER.

See Appendix A3 of the Reporting Standards Handbook Volume II: Manuals Performance and Risk for additional information about the calculation of GAV.

Note the contractual investment manager compensation that represents the spread between the before and after fees TWR may differ from the above defined fees charged by the manager.

It should be noted that funds utilizing the non-operating model may be required to report an expense ratio in accordance with GAAP that may differ from TGER.

Additional information on TGER and related ratios can be found in the Guidance Paper "*Total Global Expense Ratio: a globally comparable measure of fees and costs for real estate investment vehicles"* on the Reporting Standards website www.reportingstandards.info.

Additional TGER Disclosures

- **Use of rebates**: TGER disclosures must indicate whether management fee adjustments including rebates, fee reduction, fee waivers, and transaction costs are utilized by the fund. The management

fees used to calculate TGER should include these reductions (i.e., are presented net of any such adjustments).

- **Types of fees and costs included in the calculation**: TGER disclosures must indicate the types of fees and costs included in TGER. Additionally, information on fees paid to the manager is captured within related party disclosures in the financial statement notes
- **Use of estimates**: TGER disclosures must include a description of the types of estimates utilized in the calculation for TGER including, but not limited to, information not available as of the reporting period; and estimates surrounding GAV (or NAV, if NAV is presented).
- **Fees paid in lieu of third-party services**: To the extent that fees are paid to the manager for services that would otherwise be paid to a third party and do not fall within TGER costs, such fees must be disclosed. An example of such fees for debt funds are loan servicing fees paid to an affiliate of the investment manager.

Leverage: Financial Leverage and Structural Leverage

A debt fund that employs leverage as part of its strategy generally uses financial and/or structural leverage to enhance returns. An unlevered debt fund generally employs a strategy in which it primarily invests in senior investments in whole loans and employs no leverage at the fund level, though it may have structural leverage if it invests in junior debt investments.

Financial Leverage – Financial leverage for debt funds may include, but is not limited to, subscription lines, CLO financings, warehouse/repo lines, note-on-note financing, and unsecured or secured fund level debt. These financings are generally reported within the fair value GAAP based financial statements and usually can be identified directly on or embedded within the Statement of Net Assets.

Structural Leverage – Structural leverage for debt investments occurs when a fund's investment is subordinate to other debt secured by the same collateral. The other debt is senior to the fund's debt investment, and accordingly the fund's debt investment will be repaid only after the other debt is repaid. Types of subordinate debt with implied structural leverage include B-notes, mezzanine debt, preferred equity, and junior securitized debt bonds (CLOs, CDOs, or CMBS bonds that are junior to outstanding senior bonds). It should be noted that the amount of debt that is senior to a fund's debt investment is not shown on the fund's financial statements and may not be disclosed in the notes, since the fund has not made a direct investment in the debt which is senior to the fund's debt investment.

It is best practice to disclose information specific to financial leverage and structural leverage in the recurring reporting to investors.

For purposes of the Reporting Standards, the leverage spectrum serves to facilitate a clear understanding, enhance comparability, and provide consistency when defining types of leverage used by funds. The spectrum of types of leverage generally employed by debt funds is:

- Tier 1: Subscription lines backed by commitments (drawn balance); unsecured and/or secured fund level debt; investment level secured debt. Tier 1 leverage generally includes the fund's financial leverage.
- Tier 2: Debt senior to a junior debt investment; forward commitments; interest rate hedging instruments. Tier 2 generally includes the fund's structural leverage.
- Tier 3: Carve-outs related to leverage; contingent liabilities: credit enhancements; fund level guarantee/investor guarantee; letters of credit

Fund Tier 1 (T1) Leverage Percentage

$$\frac{\text{Fund T1 total leverage (C)}}{\text{Total gross assets (as defined)}}$$

Operating Model

$$\frac{\text{Fund T1 total leverage (C)}}{\text{Total Balance Sheet Assets – (Joint Venture * Partner economic share of total assets)}}$$

Non-Operating Model

$$\frac{\text{Fund T1 Total Leverage (C)}}{\text{Total balance sheet assets + (Fund economic share of total joint venture * liabilities)}}$$

Financial Leverage Ratio (Debt/Equity)

$$\frac{\text{Fund T1 total leverage (C)}}{\text{Total investor capital}}$$

Weighted Average Interest Rate of Fund T1 Leverage

Calculate separately for Fixed-Rate leverage and Floating-Rate leverage.

$$\frac{P_1 * I_1}{P} + \frac{P_2 * I_2}{P} + \frac{P_3 * I_3}{P} + \ldots$$

Weighted Average Remaining Term of Fund T1 Leverage

Calculate separately for Fixed-Rate leverage and Floating-Rate leverage.

$$\frac{P_1 * r_1}{P} + \frac{P_2 * r_2}{P} + \frac{P_3 * r_3}{P} + \ldots$$

Input Definitions

Fund T1 Total Leverage (C) = P = Fund T1 leverage at cost, which is the remaining principal balance
P_i = Principal balance of each liability
I_i = Interest rate of each liability (years)
r_i = Remaining term of each liability (years)

As used herein, Joint Venture includes investments that are other than wholly-owned by the fund including, but not limited to: co-investments, limited partnerships, investments in C-corporations, etc.

5.03 Real Estate Debt Risk and Yield Metrics

The real estate debt investment industry uses metrics and financial ratios that provide information about a debt investment relative to its underlying real estate collateral. The metrics provide a basis to compare different debt investments and/or to see the change in risk of a given debt investment based on the change in its credit metrics. Thus, it is critical that the metrics are clearly labeled to disclose exactly what is being

measured (e.g., actual or stabilized DSCR/DY/LTV; the time period of cash flows; current or fully funded loan balance; etc.).

Investment Metrics

Debt Service Coverage Ratio (DSCR) is the ratio of a property's net operating income (NOI) or net operating cash flow (NCF) to the debt service payments on the loan secured by the property, calculated by dividing the NOI or NCF by total debt service. DSCR is a measure of a mortgaged property's ability to meet monthly debt service payments; thus, higher ratios indicate less risk. A DSCR less than 1.0 means that there is insufficient cash flow from the property to cover debt payments. DSCR should be labeled to include what inputs are used for the calculation.

For example: i) whether the numerator is property NOI or NCF; ii) what time period and property status is used (e.g., quarterly, prior year, current, stabilized); iii) the NOI or NCF treatment of interest rate caps in the metrics from the perspective of the borrower, and whether the debt service payments in the denominator account for the cap/derivative; and iv) the NOI or NCF treatment of guarantees (e.g., an interest reserve guaranty) and whether or not the DSCR reported accounts for the guarantee.

Loan to Cost (LTC) is the ratio of the unpaid principal balance of a debt investment to the property (collateral) cost. LTC should be labeled to indicate what inputs are used for calculation. For example: i) numerator: at origination, current outstanding, or fully funded loan balance; and ii) denominator: construction cost or acquisition cost paid by the borrower.

Loan to Value (LTV) is the ratio of the unpaid principal balance of a debt investment to the property (collateral) value. LTV should be labeled to indicate what inputs are used for calculation. For example: i) numerator: at origination, current outstanding, or fully funded loan balance; and ii) denominator: at origination, current, or stabilized property value. Property value should be determined in accordance with the fund's valuation policy for valuing underlying real estate collateral. Refer to the Valuation section of this Manual for a discussion of valuation of underlying real estate collateral, see sections 4.02 and 4.03 .

Debt Yield (DY) is the property's NOI expressed as a percentage of the unpaid principal balance of a debt investment. Debt yield is used as a measure of risk that is derived from the actual loan balance, rather than a subjective measure of value, such as the loan to value ratio which uses a subjective opinion of value as a component. DY should be labeled to indicate what inputs are used for the calculation.

Current Yield is the debt investment's annual interest income expressed as a percentage of the current fair value of the debt investment.

Yield to Maturity (YTM) is the expected annual rate of return from a debt investment given its current market value, its scheduled payments, and a held to maturity time horizon. YTM is essentially the debt investment's IRR if held to maturity.

Interest Rate is the debt investment's contractual interest rate, with additional detail that may include:

- **Spread**, which is the contractual spread expressed in basis points over the base rate and may include spread to SOFR, spread to treasury, spread to swap, or option-adjusted spread.
- **Rate cap or floor** (if applicable) is the maximum or minimum interest rate, with an interest rate cap generally being an option purchased by the borrower that limits the interest rate to a specified maximum.

- **Rate step-up** (if applicable) is a previously agreed upon increase in the mortgage rate, either contractual upon a certain date or triggered by certain loan level events.
- **Fixed-rate or floating-rate**

Maturity Date is the contractual termination of the debt instrument requiring repayment of the debt.

Extension Options (if applicable) are provisions permitting extension of the original term of the debt instrument. Such provisions are generally subject to the debt instrument achieving certain loan level credit metrics and payment of an extension fee.

Real estate debt risk metrics can be calculated at the fund and/or investment levels as shown below:

Investment Level

The weighted average DSCR, LTV, LTC, or DY of the fund's debt investments is equal to the metric for each debt investment weighted by each investment's unpaid principal balance.

Debt Service Coverage Ratio (DSCR)

$$\frac{\text{Property (loan collateral) NOI or NCF}}{\text{Debt service payments (principal and interest) of debt investment}}$$

Debt Service Coverage Ratio (DSCR) including Subordinate Debt

$$\frac{\text{Property (loan collateral) NOI or NCF}}{\text{Debt service payments (principal and interest) of subordinate and senior debt investments on the property}}$$

Debt Yield (DY)

$$\frac{\text{Property (loan collateral) NOI}}{\text{Unpaid principal balance of debt investment}}$$

Debt Yield (DY) including Subordinate Debt

$$\frac{\text{Property (loan collateral) NOI}}{\text{Unpaid principal balance of subordinate and senior debt investments on the property}}$$

Current Yield

$$\frac{\text{Interest income of debt investment}}{\text{Market Value of debt investment}}$$

Yield to Maturity (YTM)

$$FV_0 = \frac{F_1}{(1+YTM)} + \frac{F_2}{(1+YTM)^2} + \frac{F_3}{(1+YTM)^3} + \ldots + \frac{F_n}{(1+YTM)^n}$$

Input Definitions

FV_0 = Fair Value of debt investment at time zero
F_1 - F_n = Coupon payment (principal and Interest) for each applicable period
F_n = Debt investment balance to be paid at loan maturity

Loan to Cost (LTC)

$$\frac{\text{Unpaid principal balance of debt investment}}{\text{Property (loan collateral) ending cost}}$$

Loan to Value (LTV)

$$\frac{\text{Unpaid principal balance of debt investment}}{\text{Property (loan collateral) value}}$$

First $ Risk LTV (attachment point) for Subordinate Debt

$$\frac{\text{Unpaid principal balance of loans senior to subordinate debt investment}}{\text{Property (loan collateral) value}}$$

Last $ Risk LTV (detachment point) for Subordinate Debt

$$\frac{\text{Unpaid principal balance of subordinate debt investment + Unpaid principal balance of senior loans}}{\text{Property (loan collateral) value}}$$

APPENDIX A – REPORTING STANDARDS VOLUME I DEBT FUND CHECKLIST

The Reporting Standards is a two-volume handbook. Volume I houses all the required and recommended elements of reporting. Volume II includes checklists, discipline specific manuals, and other resources.

Compliance with the Reporting Standards is measured on an account or fund basis. For an account or fund to claim compliance with the Reporting Standards, all required elements must be reported in the account or fund reporting and a statement of compliance may be included in such reporting. Recommended elements are considered best practice and may be applicable in certain situations.

The Debt Fund Checklist has been created as a reference guide that includes the relevant reporting elements grouped by associated discipline (portfolio management, performance, asset management, financial reporting, and valuation), along with the frequency of reporting, required or recommended status, fund type applicability, and Volume I reference in an easy-to-read format. The Debt Fund Checklist should be used in conjunction with and not without reference to Volume I.

Additional information about the Reporting Standards (including checklists, discipline specific manuals, and other resources) can be found at www.reportingstandards.info.

The attached Debt Fund Checklist is provided for reference. Note that it is updated and reviewed as part of the Volume I review process, which may be different timing from updates and review of the Debt Fund Manual.

APPENDIX A – REPORTING STANDARDS VOLUME I DEBT FUND CHECKLIST

Reporting Standards – Debt Funds					
Disciplines	**Element description**	**Frequency**	**Required or recommended element**	**Applicable account type**	**Reference**
Portfolio management	Name or identifier	Quarterly	Required	All	PM.01
	Contact	Quarterly	Required	All	PM.02
	Inception date	Quarterly	Required	All	PM.03
	Structure	Annually	Required	All	PM.04
	Style and strategy	Annually	Required	All	PM.05
	Portfolio diversification by: • Investment/property type • Region/location • Nature of investment (life cycle) • Debt type • Interest rate type	Quarterly	Required	All	PM.06
	Final closing date	Annually	Required	Closed-end	PM.07
	Scheduled termination date	Annually	Required	Closed-end	PM.08
	Management discussion of performance relative to objective	Quarterly	Recommended	All	PM.09
Performance and Risk	Total and Component Time-Weighted Return (TWR) – Gross of Fees and Total TWR Net of Fees. Periods: quarterly, 1 yr., 3yr., 5yr., 10yr., and since-inception (SI)	Quarterly	Required	Open-end	PR.01
	Total and Component Time-Weighted Return (TWR) – Gross of Fees and Total TWR Net of Fees. Periods: quarterly, 1 yr., 3yr., 5yr., 10yr., and since-inception (SI)	As requested by investor		Closed-end	PR.01
	Total and Component Time-Weighted Return (TWR) – Gross of Fees and Total TWR Net of Fees. Periods: quarterly, 1 yr., 3yr., 5yr., 10yr., and since-inception (SI)	As requested by investor		SMA	PR.01
	Disclosures accompanying TWR	Required when TWR is reported		All	PR.01.1-01.7
	Net Asset Value	Quarterly	Required	All	PR.03
	Fund Tier 1 (T1) Total Leverage – at cost	Quarterly	Required	All	PR.04
	Fund T1 Leverage Percentage	Quarterly	Required	All	PR.05
	Since-inception Internal Rate of Return (IRR) - Gross and Net of fees	Quarterly	Required	Closed-end	PR.06
	Since-inception Internal Rate of Return (IRR) - Gross and Net of fees	As requested by investor		SMA	PR.06
	Disclosures accompanying IRR	Required when IRR is reported		All	PR.06.1-06.5
	Paid-in capital multiple	Quarterly	Recommended	Closed-end	PR.07
	Investment multiple	Quarterly	Recommended	Closed-end	PR.08
	Since-inception paid-in capital	Quarterly	Required	Closed-end	PR.13
	Weighted average interest rate of Fund T1 Leverage	Quarterly	Recommended	All	PR.15
	Weighted average remaining term of fixed-rate Fund T1 Leverage	Quarterly	Recommended	All	PR.16
	Weighted average remaining term of floating rate Fund T1 Leverage	Quarterly	Recommended	All	PR.17
	Unfunded commitments	Quarterly	Recommended	Closed-end	PR.19
	Redemptions for quarter	Quarterly	Recommended	Open-end	PR.20
	Total subscribed commitments	Quarterly	Recommended	Open-end	PR.21
	Total redemption requests	Quarterly	Recommended	Open-end	PR.22
	Total Global Expense Ratio (TGER)	Annually	Recommended in 2023, Required in 2024 and beyond	Open-end and Closed-end	PR.23
	Disclosures accompanying TGER	Required when TGER is reported			PR.23.1-23.4

APPENDIX A – REPORTING STANDARDS VOLUME I DEBT FUND CHECKLIST

Handbook Volume I

Reporting Standards – Debt Funds					
Disciplines	**Element description**	**Frequency**	**Required or recommended element**	**Applicable account type**	**Reference**
	Financial leverage ratio	Quarterly	Recommended	All	PR.24
	Distribution yield	Quarterly	Recommended	Open-end	PR.25
Asset management	Loan to value or loan to cost	Quarterly	Required	All	AM.04
	Weighted average interest rate	Quarterly	Recommended	All	AM.05
	Debt yield	Quarterly	Recommended	All	AM.06
	Debt service coverage ratio	Quarterly	Recommended	All	AM.07
Financial Reporting	Condensed Fair Value (FV) GAAP-based financial reporting	Quarterly	Required	All	FR.01
	Fair Value (FV) GAAP-based financial statements	Annually	Required	All	FR.02
	Financial statement audits	Annually	Required	All	FR.03
	Schedule of Investments	Annually	Required	All	FR.04
Valuation	Valuation policy statement	Annually	Required	All	VA.01
	Valuation policy	Required to be maintained and consistently applied		All	VA.02
	Internal valuations	Quarterly	Required	All	VA.03
	External valuations of collateral at origination	One-time	Recommended	All	VA.07
Compliance	Statement of Compliance	Quarterly	Recommended	All	

APPENDIX B – NCREIF/CREFC DEBT FUND AGGREGATE

The NCREIF/CREFC Open-end Debt Fund Aggregate (Aggregate) is a fund-level aggregate comprising open-end funds that provide credit and financing to borrowers who own commercial real estate. The Aggregate is intended to enhance investors' interest & understanding of the rewards and risk of private real estate debt funds, which may lead to increased allocations to debt, benefiting managers, investors, and commercial real estate finance industry professionals.

- The Aggregate presents equal-weighted, fund-level TWR information from open-end debt funds.
- The Aggregate is not a benchmark or an index.
- The Aggregate includes funds that market themselves as Core, Core-plus, or Value-add. Currently the Aggregate contains more funds in the Core-plus space.
- The Aggregate contains both levered and unlevered debt funds.
- The Aggregate is based on fund-level data collection only. Individual debt investment data is not collected.
- The Aggregate contributors calculate quarterly NAVs and returns on a fair value basis.
- The Aggregate uses four quarters to annualize cumulative quarterly returns.
- For Gross fund level TWR (before-fees) and Net fund level (after-fees) TWR purposes, the Aggregate only considers investment management fees, incentive fees, and carried interest (also known as "promote") when distinguishing between gross and net. The Aggregate generally presents TWRs gross of fees while net of fee TWRs may be presented for informational purposes and as a proxy for the average fees charged.
- NCREIF and CREFC are creating standardized definitions for three distinct styles of debt fund investing. These style definitions will help in the goal of ultimately creating separate debt fund indices by style.

More information about the Aggregate is available here: NCREIF/CREFC Open-End Debt Fund Aggregate

APPENDIX C – ILLUSTRATIVE FINANCIAL STATEMENTS

Appendix C-1: Illustrative Financial Statements – Gross (Operating Model) Presentation

The accompanying financial statements are illustrative only and provide a general format for annual financial statements prepared on a fair value basis of accounting. Disclosures included in the illustrative financial statements are not intended to be comprehensive and are not intended to establish preferences among alternative disclosures.

Note: There is diversity in practice amongst private real estate and debt funds from a report presentation standpoint. For purposes of the attached example financial statements, the following bullet points highlight the presentation utilized herein:

- The accompanying financial statements generally represent financial statements and example disclosures for an open-end debt fund presenting as an investment company (ASC 946) based on the operating (gross) model
    - Certain real estate and debt funds that report as investment companies have determined that it is more appropriate to report on the operating (gross) model given that investors are accustomed to seeing gross presentation within the financial statements. This presentation diverges from ASC 946 as written, which is an overall net presentation. This has led to interpretation around the application of certain accounting guidance, such as consolidation concepts, and other gross vs. net presentation items. This may lead to differences in presentation between real estate and debt funds presenting on an operating (gross) versus non-operating (net) model; however, should not impact the overall net asset value of the real estate fund.
- The gross presentation presented herein would also be applicable to separate account debt funds that present their financial statements in accordance with ASC 960, *Accounting and Reporting by Defined Benefit Pension Plans.* However, certain information contained within these example financial statements, such as the Schedule of Investments and Financial Highlights, are not required for ASC 960 reporters.
- The accompanying financial statements are presented on a comparative basis; however, single year presentation is also an acceptable form of presentation in accordance with GAAP.

Refer to Appendix C-2 for an example of non-operating model presentation. Also note that certain funds may issue single-year financial statements only.

XYZ Debt Fund

Operating (Gross) Model

Consolidated Financial Statements for the Years Ended December 31, 20CY and 20PY

XYZ DEBT FUND

CONSOLIDATED STATEMENTS OF NET ASSETS
AS OF DECEMBER 31, 20CY AND 20PY (in thousands)

	20CY	20PY
Assets:		
Real estate investments - at fair value:		
Mortgage and other loans receivable (cost of $113,750 and $134,756, respectively)	$ 115,750	$ 136,818
Investment in real estate preferred equity (cost of $73,099 and $41,861, respectively)	78,910	42,771
Debt securities (cost of $20,000 and $0, respectively)	25,000	-
Real estate owned (cost of $23,509 and $0, respectively)	22,000	-
Total real estate investments	$ 241,660	$ 179,589
Cash and cash equivalents	88,905	62,692
Interest and other receivables	3,178	2,131
Other assets	3,591	5,695
Total assets	**$ 337,334**	**$ 250,107**
Liabilities:		
Line of credit - at fair value (cost of $43,000 and $51,000, respectively)	43,000	51,000
Fund level notes payable - at fair value (cost of $80,000 and $65,000, respectively)	77,115	61,690
Repurchase facilities - at fair value (cost of $32,500 and $0, respectively)	32,500	-
Investment management fees payable	1,350	1,330
Other liabilities	2,900	2,055
Total liabilities	**$ 156,865**	**$ 116,075**
Net assets:	**$ 180,469**	**$ 134,032**

See accompanying notes to the consolidated financial statements.

For illustrative purposes only - Debt Fund operating model financial statements

XYZ Debt Fund
Consolidated Schedules of Investments
As of December 31, 20CY AND 20PY (in thousands)

Investment	City, State	Loan Type	Maturity Date	Interest Rate (fixed/variable)	December 31, 20CY Cost	December 31, 20CY Fair Value	December 31, 20PY Cost	December 31, 20PY Fair Value
Mortgage and other loans receivable								
Apartment								
Loan 1	City, State	Senior	1/1/XXXX	xx.x%/xx.x%	$	$	$ 23,509	$ 25,571
Loan 2	City, State	Mezz	1/1/XXXX	xx.x%/xx.x%	43,585	43,585	42,097	42,097
Total apartment					$ 43,585	$ 43,585	$ 65,606	$ 67,668
Industrial								
Loan 3	City, State	Senior	1/1/XXXX	xx.x%/xx.x%	$ 70,165	$ 72,165	$ 69,150	$ 69,150
Total industrial					$ 70,165	$ 72,165	$ 69,150	$ 69,150
Total mortgage and other loans receivable (x% of NAV)					**$ 113,750**	**$ 115,750**	**$ 134,756**	**$ 136,818**
Preferred equity in real estate								
Apartment								
Pref 1	City, State	Pref	1/1/XXXX	xx.x%	$ 7,865	$ 8,820	$ 2,701	$ 2,978
Pref 2	City, State	Pref	1/1/XXXX	xx.x%	27,641	28,845	24,641	24,782
Total apartment					$ 35,506	$ 37,665	$ 27,342	$ 27,760
Industrial								
Pref 3	City, State	Pref	1/1/XXXX	xx.x%	$ 18,519	$ 20,749	$ 14,519	$ 15,011
Pref 4	City, State	Pref	1/1/XXXX	xx.x%	19,074	20,496		
Total industrial					$ 37,593	$ 41,245	$ 14,519	$ 15,011
Total preferred equity in real estate (x% of NAV)					**$ 73,099**	**$ 78,910**	**$ 41,861**	**$ 42,771**
Debt securities								
Investment 1	Various	CMBS	1/1/XXXX	xx.x%	$ 20,000	$ 25,000	$	$
Total debt securities (x% of NAV)					**$ 20,000**	**$ 25,000**	**$**	**$**

Investment	City, State	Ownership	Acquisition Date	Square Feet (Unaudited)	December 31, 20CY Cost	December 31, 20CY Fair Value	December 31, 20PY Cost	December 31, 20PY Fair Value
Real estate owned								
Apartment	City, State	WO	1/1/XXXX	xxx	$ 23,509	$ 22,000	$	$
Total apartment					23,509	22,000	-	-
Total real estate owned (x% of NAV)					**$ 23,509**	**$ 22,000**	**-**	**-**
Total Real Estate Investments					**$ 230,358**	**$ 241,660**	**$ 176,617**	**$ 179,589**

WO - Wholly Owned Investment
Mezz - Mezzanine loan
Pref - Preferred equity
CMBS - Commercial mortgage-backed security

See accompanying notes to the consolidated financial statements.

For illustrative purposes only - Debt Fund operating model financial statements

Note: GAAP requirement is to only disclose assets that are greater than 5% of NAV but funds may elect to disclose all assets

XYZ DEBT FUND

CONSOLIDATED STATEMENTS OF OPERATIONS
FOR THE YEARS ENDED DECEMBER 31, 20CY AND 20PY (in thousands)

	20CY	20PY
Investment income:		
Interest income on mortgage and other loans receivable	$ 38,140	$ 25,572
Fee income	1,316	9,643
Income from investment in real estate preferred equity	15,164	13,424
Rental revenue from real estate owned	2,500	-
Other income	11	13
Total investment income	**57,131**	**48,652**
Expenses:		
Interest expense	22,467	12,127
Real estate expenses and taxes	1,450	-
General and administrative expense	1,909	2,454
Investment management fees	5,400	5,320
Financing costs	992	2,262
Total expenses	**32,218**	**22,163**
Net investment income	**24,913**	**26,489**
Net realized gain (loss):		
Net proceeds from investment pay-off / sale	11,657	-
Less: cost of investments paid-off / sold	(10,101)	-
Realization of previously recorded unrealized gain (loss) on investments disposed	(267)	-
Net realized gain from pay-off / sale of investments	1,289	-
Net unrealized gain (loss):		
Unrealized gain on mortgage and other loans receivable	2,000	2,389
Unrealized gain on preferred equity in real estate	5,168	1,385
Unrealized gain on debt securities	5,000	-
Unrealized loss on real estate owned	(3,571)	-
Unrealized gain on repurchase facilities	-	-
Unrealized gain (loss) on notes payable	(425)	1,550
Net realized and unrealized gain	**9,461**	**5,324**
Increase in net assets resulting from operations	**$ 34,374**	**$ 31,813**

See accompanying notes to the consolidated financial statements.

For illustrative purposes only - Debt Fund operating model financial statements

XYZ DEBT FUND

CONSOLIDATED STATEMENTS OF CHANGES IN NET ASSETS
FOR THE YEARS ENDED DECEMBER 31, 20CY AND 20PY (in thousands)

	XYZ DEBT FUND
Net assets - December 31, 20PY-1	**$ 95,799**
From operations:	
Net investment income	26,489
Net realized and unrealized gain	5,324
Increase in net assets resulting from operations	31,813
From capital transactions:	
Contributions	11,250
Distributions	(4,830)
Increase in net assets resulting from capital transactions	6,420
Increase in net assets	38,233
Net assets - December 31, 20PY	**$ 134,032**
From operations:	
Net investment income	24,913
Net realized and unrealized gain	9,461
Increase in net assets resulting from operations	34,374
From capital transactions:	
Contributions	14,388
Distributions	(2,325)
Increase in net assets resulting from capital transactions	12,063
Increase in net assets	46,437
Net assets - December 31, 20CY	**$ 180,469**

See accompanying notes to the consolidated financial statements.

For illustrative purposes only - Debt Fund operating model financial statements

XYZ DEBT FUND

CONSOLIDATED STATEMENTS OF CASH FLOWS
FOR THE YEARS ENDED DECEMBER 31, 20CY AND 20PY (in thousands)

	20CY	20PY
Cash flows from operating activities:		
Increase in net assets resulting from operations	$ 34,374	$ 31,813
Adjustments to reconcile increase in net assets resulting from operations to net cash flows from operating activities:		
Investments - at fair value:		
Net realized and unrealized gain	(9,461)	(5,324)
Investments in mortgage and other loans receivable	(3,063)	(51,000)
Principal collections on mortgage and other loans receivable	560	-
Investments in preferred equity in real estate	(41,339)	(16,600)
Net proceeds from investment pay-off / sale	11,657	-
Investment in debt securities	(20,000)	-
Changes in other assets and liabilities:		
Interest receivable	(1,047)	(1,050)
Other assets	2,104	3,434
Investment management fees payable	20	(155)
Other liabilities	845	(110)
Net cash flow used in operating activities	**(25,350)**	**(38,992)**
Cash flows from financing activities:		
Proceeds from line of credit	12,500	21,792
Proceeds from notes payable	15,000	35,000
Principal payments on line of credit	(20,500)	(8,000)
Principal payments on notes payable	-	(10,000)
Proceeds from repurchase facilities	37,500	-
Repayments to repurchase facilities	(5,000)	-
Payment of financing costs	-	(690)
Contributions	14,388	11,250
Distributions	(2,325)	(4,830)
Net cash flow provided by financing activities	**51,563**	**44,522**
Net change in cash and cash equivalents	**26,213**	**5,530**
Cash and cash equivalents — Beginning of year	62,692	57,162
Cash and cash equivalents — End of year	**$ 88,905**	**$ 62,692**
Supplemental cash flow information:		
Cash paid for interest during the year	$ 21,805	$ 11,214
Conversion of mortgage notes receivable to real estate and improvements through deed in lieu of foreclosure (See Note 4)	$ 25,571	-

See accompanying notes to the consolidated financial statements.

For illustrative purposes only - Debt Fund operating model financial statements

XYZ DEBT FUND

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
YEARS ENDED DECEMBER 31, 20CY AND 20PY
($ in thousands)

1. ORGANIZATION

XYZ Real Estate Fund, LP (referred to with its subsidiaries collectively as the "Fund") is a Delaware limited partnership formed on XXXXXX and which commenced operations on XXXXXX. The Fund is organized as a perpetual life, open-ended debt investment fund, in accordance with the Partnership Agreement (the "Agreement") between General Partner LLC (the "General Partner"), a Delaware limited liability company, and other investors (the "Limited Partners").

The Fund is in the business of making investments in senior loans, mortgages, structured debt products, preferred equity, and mezzanine loans to commercial real estate assets located in the United States.

The managing member of the General Partner is a wholly-owned subsidiary of the Investment Advisor [Manager] ("ABC" or "Investment Advisor [Manager]") and has ultimate responsibility for the management and operations of the Fund.

Total unfunded capital commitments from investors were $XXX and $XXX as of December 31, 20CY and 20PY, respectively.

The term of the Fund shall continue in existence until XXXXXX pursuant to the provisions of the Agreement.

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Basis of Presentation — Under Financial Accounting Standards Board ("FASB") Accounting Standards Codification ("ASC") 946, *Financial Services – Investment Companies* ("ASC 946"), the Fund qualifies as an investment company. The accompanying consolidated financial statements of the Fund have been presented in conformity with accounting principles generally accepted in the United States of America ("GAAP") and include the accounts of each of the Fund's wholly owned subsidiaries. All intercompany balances and transactions have been eliminated in consolidation.

Use of estimates — The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the amounts reported in the financial statements and accompanying notes. Actual results could differ from these estimates. The Fund's estimates of fair value are based on the best information available to management at the date of valuation. Amounts ultimately realized from each investment may vary significantly from the fair values presented.

Real estate and capital markets are cyclical in nature. Property and debt investment values are affected by, among other things, the availability of capital, occupancy rates, rental rates and interest and inflation rates. As a result, determining real estate and debt investment values involves many assumptions. Amounts ultimately realized from each investment may vary significantly from the fair values presented.

Debt investments – Investments in mortgage and other loans receivable, preferred equity in real estate, and debt securities are carried at fair value in accordance with FASB ASC 820, *Fair Value Measurement* ("ASC 820"). See Note 3 for further detail.

Real estate owned — Investments in real estate owned are carried at fair value. Development costs and major renovations are capitalized as a component of cost, and routine maintenance and repairs are charged to expense as incurred.

The fair value of the real estate property received through foreclosure represents the initial component of the real estate investment costs.

[Refer to Section 3.06 of the Debt Fund Manual for further background on initial accounting treatment.]

Investment valuation — Debt and real estate investment values are based upon independent appraisals, estimated sales proceeds or the Investment Advisor's opinion of value. Such values have been identified for investment and portfolio management purposes only; the Fund reserves its right to pursue full remedies for the recovery of its investments and other rights. The fair value of real estate investments does not reflect transaction sale costs, which may be incurred upon disposition of the real estate investments.

The estimated fair value of debt and real estate related assets is determined through an appraisal process. These estimated fair values may vary significantly from the prices at which the investments would sell as market prices of these investments can only be determined by negotiation between a willing buyer and seller. Although the estimated fair values represent subjective estimates, management believes these estimated fair values are reasonable approximations of market prices.

Cash and cash equivalents — Cash and cash equivalents are comprised of cash and short-term investments with original maturity dates of less than ninety days from the date of purchase.

The Fund invests its cash primarily in deposits and money market funds with commercial banks. At times, cash balances at a limited number of banks and financial institutions may exceed federally insured amounts. The Fund believes it mitigates credit risk by depositing cash in or investing through major financial institutions. In addition, in the normal course of business, the Fund extends credit to its tenants, which consist of local, regional and national based tenants. The Investment Advisor does not believe this represents a material risk of loss with respect to its financial position.

Through our subsidiaries, we have oversight of certain servicing accounts held with third-party servicers, or servicing accounts, which relate to borrower escrows and other cash balances aggregating $XXX and $XXX as of December 31, 20CY and 20PY, respectively. This cash is maintained in segregated bank accounts, and these amounts are not included in the assets and liabilities presented in our consolidated statements of net assets. Cash in these servicing accounts will be transferred by the respective third-party servicer to the borrower or us under the terms of the applicable loan agreement upon occurrence of certain future events. We do not generate any revenue or incur any expenses as a result of these servicing accounts.

Interest receivable – Interest receivable is recognized on an accrual basis based on contractual amounts provided for in the loan agreements or other legal documents.

Line of credit and fund level notes payable – The line of credit and fund level notes payable are shown at fair value in accordance with ASC 820. See Note 3 for further details.

Repurchase facility —The repurchase facility is shown at fair value in accordance with ASC 820. See Note 3 for further details. Interest expense related to the facility is accrued periodically based on the contractual interest rate and facility terms and is included in net investment income within the consolidated statements of operations.

Financing Costs — Financing costs associated with the line of credit, fund level notes payable, and repurchase facility are expensed as incurred. For the years ended December 31, 20CY and 20PY, the Fund incurred financing costs of $xx,xxx and $xx,xxx, respectively.

Revenue recognition — Interest income on mortgages and other loans receivable is recognized on an accrual basis when the current interest is earned and receivable in accordance with the loan agreements.

[Section to consider if there are non-performing loans] The Fund considers a loan receivable to be non-performing and places loans on non-accrual status at such time as: (1) the fair value of the collateral as determined under the liquidation model is not sufficient to cover the loan's principal and accrued interest; (2) the loan has a maturity default; and/or (3) management determines it is probable that the amounts due according to the contractual terms of the loan will not be collected. While on non-accrual status, the Fund will continue to assess the collectability based on its judgment and measurement methods that are practical and relevant to the specific loan situation. Interest income will cease to be accrued during this time and debt service payments received from the borrower will be applied first to reduce outstanding principal until principal amounts are fully repaid. Any remaining cash receipts will then be recognized as interest income applying the effective interest method to determine the amount of interest income to be recognized for the period.

Fee income consists of origination fees, commitment fees, non-refundable underwriting fees, due diligence fees, prepayment fees and extension fees collected from borrowers and third-party owner/operators and is recognized when the fees are collected, in accordance with the associated loan agreements.

Income from investment in real estate preferred equity is recorded in accordance with the terms of the underlying agreement. Any preferred equity payment amounts that are deferred until the redemption date are recorded as unrealized gain on preferred equity in real estate within the consolidated statements of operations.

Rental revenue from real estate and improvements is recognized on an accrual basis in accordance with the terms of the underlying lease agreements. Other lease rental income, such as adjustments based on the Consumer Price Index, charges to tenants for their share of operating expenses, and percentage rents based on sales, are recognized when earned. Interest income is accrued as earned in accordance with the contractual terms of the loan agreements. Operating expenses are recognized as incurred.

Investment management fees — Investment management fees include asset management fees and investment acquisition fees charged by ABC. Such amounts are reflected in the accompanying consolidated financial statements when incurred.

Income taxes — The Fund is a partnership for U.S. income tax purposes. Under present US law, individual partners are liable for income taxes on their share of the Fund's income. The Fund itself is not liable for any U.S. federal, state, or local income taxes.

FASB ASC 740, *Income Taxes* (ASC 740), provides guidance for how uncertain tax positions should be recognized, measured, presented and disclosed in the consolidated financial statements. ASC 740 requires

the evaluation of tax positions taken in the course of preparing the Fund's tax returns to determine whether tax positions are "more-likely-than-not" of being sustained by the applicable tax authority. Tax benefits of positions not deemed to meet the more-likely-than-not threshold would be recorded as a tax expense in the current year. For the years ended December 31, 20CY and 20PY, there have been no uncertain tax positions.

Concentration of market and credit risk

Concentrations of market and credit risk may exist with respect to the Fund's investments and its other assets and liabilities. Market risk is a potential loss the Fund may incur as a result of changes in the recoverable value of its investments. The Fund may also be subject to risk associated with concentrations of investments in geographic regions and industries. As of December 31, 20CY, the Fund's investments were not concentrated in a particular geographic region or industry.

Credit risk includes the possibility that a loss may occur from the failure of counterparties, such as the Fund's borrowers, to make payments according to the terms of the loan agreements. The Fund's exposure to credit risk at any point in time is generally limited to amounts recorded as assets on the consolidated statements of net assets.

Recently issued accounting standards

Accounting Standard Updates (ASU) recently issued that may be applicable to users of this manual include the following[17]:

- None noted for the year ending December 31, 2024. Open to update in future periods.

Impact of accounting standards not yet adopted — [to be tailored to each year at management's discretion.]

3. FAIR VALUE MEASUREMENTS[18]

The Fund accounts for its investments in accordance with the provisions of ASC 820. ASC 820 establishes fair value measurement framework, provides a single definition of fair value, and requires expanded disclosure summarizing fair value measurements. ASC 820 emphasizes that fair value is a market-based measurement, not an entity-specific measurement. Therefore, a fair value measurement should be determined based on the assumptions that market participants would use in pricing an asset or liability.

The standard establishes a hierarchy for inputs used in measuring fair value that maximizes the use of observable inputs and minimizes the use of unobservable inputs by requiring that the most observable input be used when available. Observable inputs are inputs that the market participants would use in pricing the asset or liability developed based on market data obtained from sources independent of the Fund. Unobservable inputs are inputs that reflect the Fund's assumptions about the assumptions market participants would use in pricing the asset or liability developed based on the best information available in the circumstances. The hierarchy is measured in three levels based on the reliability of inputs:

[17] Additional ASUs may be applicable, as determined by management.

[18] This footnote highlights disclosures that are optional after the adoption of ASU 2018-13, *Fair Value Measurement (Topic 820): Disclosure Framework — Changes to the Disclosure Requirements for Fair Value Measurement*.

Level 1— Valuations based on quoted prices in active markets for identical assets or liabilities that the Fund has the ability to access.

Level 2 — Valuations based on quoted prices in less active, dealer or broker markets. Fair values are primarily obtained from third party pricing services for identical or comparable assets or liabilities.

Level 3 — Valuations derived from other valuation methodologies, including pricing models, discounted cash flow models and similar techniques, and not based on market, exchange, dealer, or broker-traded transactions. Level 3 valuations incorporate certain assumptions and projections that are not observable in the market and use significant professional judgment in determining the fair value assigned to such assets or liabilities.

In instances where the determination of the fair value measurement is based on inputs from different levels of the fair value hierarchy, the level in the fair value hierarchy within which the entire fair value measurement falls is based on the lowest level input that is significant to the fair value measurement in its entirety.

The following is a description of the valuation techniques used for items measured at fair value:

Mortgage and other loans receivable — The fair value of mortgage and other loans receivable held by the Fund have been determined by one or more of the following criteria as appropriate: (i) on the basis of estimated market interest rates for loans of comparable quality and maturity, (ii) by recognizing the value of equity participations and options to enter into equity participations contained in certain loan instruments and (iii) giving consideration to the value of the underlying collateral. The Fund's mortgage and other loans receivable are classified within level 3 of the valuation hierarchy. The fair values of mortgage and other loans receivable are determined by discounting future contractual cash flows to the present value using a current market interest rate, which is updated quarterly by personnel responsible for the management of each investment and reviewed by senior management at each reporting period.

Investment in real estate preferred equity – The fair values of preferred equity in real estate investments are stated at the fair value of the Fund's preferred equity interests in the underlying entities in accordance with the terms of the agreement, which may be impacted by the value of underlying real estate, any related mortgage loans, and other factors such as ownership rights and distribution provisions. The underlying assets and liabilities are generally valued consistently with the techniques as described above for mortgage and other loans receivable and below for real estate and improvements. The Fund's preferred equity in real estate investments are generally classified within Level 3 of the valuation hierarchy.

Debt securities —

[Option 1] Equity securities listed or traded on any national market or exchange are valued at the last sale prices as of the close of the principal securities exchange on which such securities are traded or, if there is no sale, at the mean of the last bid and asked prices on such exchange, exclusive of transaction costs. Such marketable securities are classified within level 1 of the valuation hierarchy.

[Option 2] Debt securities are generally valued at the most recent bid price of the equivalent quoted yield for such securities (or those of comparable maturity, quality, and type). Debt securities are generally classified within level 2 of the valuation hierarchy.

[Option 3] The fair value of the debt securities is determined using a discounted cash flow model. This model estimates the present value of expected future cash flows, which are discounted using a rate that reflects the credit risk of the issuer and current market conditions.

Real estate owned – The fair values of real estate and improvements have been prepared giving consideration to the income (direct capitalization and discounted cash flows), cost, and sales comparison approaches of estimating property value. The direct capitalization approach estimates a stabilized net operating income and capitalizes it at a yield rate. The discounted cash flow income approach estimates an income stream for a property (typically 10 years) and discounts this income plus a reversion (presumed sale) into a present value at a risk-adjusted rate. Yield rates, growth assumptions, and leasing terms utilized in both income approaches are derived from market transactions, where available, as well as other financial and industry data. The cost approach estimates the replacement cost of the building less physical depreciation plus the land value. Generally, this approach provides a validation on the value derived using the income approach. The sales comparison approach compares recent transactions to the appraised property. Adjustments are made for dissimilarities which typically provide a range of value. Generally, the income approaches carry the most weight in the value reconciliation. The Fund's real estate and improvements are generally classified within Level 3 of the valuation hierarchy.

Line of credit – The fair value of the line of credit is determined by discounting the future contractual cash flows to the present value using a current market interest rate. The market rate is determined by giving consideration to one or more of the following criteria as appropriate: (i) interest rates for loans of comparable quality and maturity, and (ii) the value of the underlying collateral. The Fund's line of credit facility is generally classified within level 3 of the valuation hierarchy. The Fund makes frequent draws and paydowns on the credit facility at market rates, and as such, the credit facility is recorded based on contractual outstanding principal balances, which is the best estimate of fair value as of December 31, 20CY and 20PY.

Notes payable and repurchase facilities — The fair values of notes payable and repurchase facilities are determined by discounting the future contractual cash flows to the present value using a current market interest rate. The market rate is determined by giving consideration to one or more of the following criteria as appropriate: (i) interest rates for loans of comparable quality and maturity, and (ii) the value of the underlying collateral. The Fund's notes payable and repurchase facilities are generally classified within level 3 of the valuation hierarchy. The significant unobservable inputs used in the fair value measurement of the Fund's notes payable are the loan to value ratios and the selection of certain credit spreads and weighted average cost of capital risk premiums.

Other assets and liabilities – Interest receivable, other assets, investment management fees payable, and other liabilities are recorded at cost, which approximates fair value, as these are the amounts at which they are anticipated to be realized or liquidated.

The following are the classes of assets and liabilities measured at fair value on a recurring basis during the year ended December 31, 20CY and 20PY, using unadjusted quoted prices in active markets for identical assets (Level 1); significant other observable inputs (Level 2); and significant unobservable inputs (Level 3):

Footnote 3 - Fair Value Measurements

Description	Level 1: Quoted Prices in Active Markets for Identical Assets and Liabilities	Level 2: Significant Other Observable Inputs	Level 3: Significant Unobservable Inputs	Total at December 31, 20CY
ASSETS				
Mortgage and other loans receivable	$ -	$ -	$ 115,750	$ 115,750
Investment in real estate preferred equity	-	-	78,910	78,910
Debt securities		-	25,000	25,000
Real estate owned			22,000	22,000
Total real estate investments	$ -	$ -	$ 241,660	$ 241,660
LIABILITIES				
Line of credit	$ -	$ -	$ 43,000	$ 43,000
Notes payable	$ -	$ -	$ 77,115	$ 77,115
Repurchase facilities	$ -	$ -	$ 32,500	$ 32,500

Description	Level 1: Quoted Prices in Active Markets for Identical Assets and Liabilities	Level 2: Significant Other Observable Inputs	Level 3: Significant Unobservable Inputs	Total at December 31, 20PY
ASSETS				
Mortgage and other loans receivable	$ -	$ -	$ 136,818	$ 136,818
Investment in real estate preferred equity	-	-	42,771	42,771
Total real estate investments	$ -	$ -	$ 179,589	$ 179,589
LIABILITIES				
Line of credit	$ -	$ -	$ 51,000	$ 51,000
Notes payable	$ -	$ -	$ 61,690	$ 61,690

The following is a reconciliation of the beginning and ending balances for assets measured at fair value on a recurring basis using significant unobservable inputs (Level 3) during the year ended December 31, 20CY and 20PY:

Description	Mortgage and other loans receivable	Investment in real estate preferred equity	Debt securities (cost of $20,000 and $0, respectively)	Real estate owned	Line of credit	Notes payable	Repurchase facilities
Beginning balance December 31, 20PY	**$ 136,818**	**$ 42,771**	**$ -**	**$ -**	**$ 51,000**	**$ 61,690**	**$ -**
Investments	3,063	41,339	20,000	-	-	-	-
Principal collections	(560)						
Debt and repurchase facility proceeds	-	-	-	-	12,500	15,000	37,500
Repayments on debt and repurchase facilities	-	-	-	-	(20,500)	-	(5,000)
Assumption of real estate investments through deed in lieu of foreclosure	(25,571)	-	-	25,571	-	-	-
Real estate capital expenditures							
Realized and unrealized gain / loss [1]	2,000	(5,200)	5,000	(3,571)	-	425	-
Ending balance December 31, 20CY	**$ 115,750**	**$ 78,910**	**$ 25,000**	**$ 22,000**	**$ 43,000**	**$ 77,115**	**$ 32,500**
	-	-	-	-	-	-	-
Beginning balance December 31, 20PY-1	**$ 83,429**	**$ 24,786**	**$ -**	**$ -**	**$ 37,208**	**$ 38,240**	**$ -**
Investments	51,000	16,600					
Debt proceeds	-	-	-	-	21,792	35,000	-
Principal payments on debt	-	-	-	-	(8,000)	(10,000)	-
Realized and unrealized gain / loss [1]	2,389	1,385	-	-	-	(1,550)	-
Ending balance December 31, 20PY	**$ 136,818**	**$ 42,771**	**$ -**	**$ -**	**$ 51,000**	**$ 61,690**	**$ -**

[1] Optional after the adoption of ASU 2018-13

The following table shows quantitative information about significant unobservable inputs related to the level 3 fair value measurements used at December 31, 20CY and 20PY:

	December 31, 20CY Fair Value	December 31, 20PY Fair Value	Valuation Technique(s)	Unobservable Inputs	December 31, 20CY Ranges (Weighted Average)	December 31, 20PY Ranges (Weighted Average)
Mortgage and other loans receivable						
Apartment	$ 43,585	$ 67,668	Net present value	Credit spreads	xx% to xx% (xx%)	xx% to xx% (xx%)
				Loan to value ratio	xx% to xx% (xx%)	xx% to xx% (xx%)
				Weighted average cost of capital risk premiums	xx% to xx% (xx%)	xx% to xx% (xx%)
Industrial	$ 72,165	$ 69,150	Net present value	Credit spreads	xx% to xx% (xx%)	xx% to xx% (xx%)
				Loan to value ratio	xx% to xx% (xx%)	xx% to xx% (xx%)
				Weighted average cost of capital risk premiums	xx% to xx% (xx%)	xx% to xx% (xx%)
Investment in real estate preferred equity						
Apartment	$ 37,665	$ 27,760	Net present value	Credit spreads	xx% to xx% (xx%)	xx% to xx% (xx%)
				Loan to value ratio	xx% to xx% (xx%)	xx% to xx% (xx%)
Industrial	$ 41,245	$ 15,011	Net present value	Credit spreads	xx% to xx% (xx%)	xx% to xx% (xx%)
				Loan to value ratio	xx% to xx% (xx%)	xx% to xx% (xx%)
Debt securities						
Investment 1	$ 25,000	$ -	Net present value	Credit spreads	xx% to xx% (xx%)	N/A
				Loan to value ratio	xx% to xx% (xx%)	N/A
Real estate owned						
Apartment	$ 22,000	$ -	Discounted cash flows (DCF)	Discount rate	xx% to xx% (xx%)	N/A
				Terminal capitalization rate	xx% to xx% (xx%)	N/A
				DCF term	X-X years (X years)	N/A
Line of credit						
Other	$ 43,000	$ 51,000	Discounted cash flows (DCF)	Loan to value ratio	N/A - fund level debt instrument	
				Market interest rate	xx% to xx% (xx%)	xx% to xx% (xx%)
Notes payable						
Other	$ 77,115	$ 61,690	Discounted cash flows (DCF)	Loan to value ratio	N/A - fund level debt instrument	
				Market interest rate	xx% to xx% (xx%)	xx% to xx% (xx%)
Repurchase facilities						
Other	$ 32,500	$ -	Discounted cash flows (DCF)	Loan to value ratio	xx% to xx% (xx%)	N/A
				Market interest rate	xx% to xx% (xx%)	N/A

4. REAL ESTATE INVESTMENTS

The Fund's real estate investments consist of real estate loans, which are classified as mortgage and other loans receivable, preferred equity investments, debt securities and real estate and improvements.

The Fund's real estate loans are all secured by a mortgage interest in the underlying property serving as collateral. These loans do not have any participating rights in the operations of the underlying properties.

The Fund's preferred equity investments represent investments in underlying joint ventures with a separate third party. Through these joint venture arrangements, the Fund earns a preferred return based on the capital it has committed, but does not have any incremental participating rights.

The Fund's real estate and improvements represents an investment in an apartment complex location in CITY, STATE. On July XX, 20CY, the Fund's real estate loan for this investment was converted into a wholly-owned real estate asset as part of a deed in lieu of foreclosure agreement between the Fund and the borrower. As of December 31, 20CY, the property was recorded within real estate and improvements in the accompanying consolidated statement of net assets.

A summary of these investments as of December 31, 20CY and 20PY is presented in the table below.

								December 31, 20CY			December 31, 20PY		
Investment	City, State	Loan Type	Investment Date	Maturity Date	Interest Rate (fixed/variable)	Interest Rate Floor	Total Commitment	Unfunded Commitments	Investment at Cost	Investment at Fair Value	Unfunded Commitments	Investment at Cost	Investment at Fair Value
Mortgage and other loans receivable													
Apartment													
Loan 1	City, State	Senior loan	1/1/XXXX	1/1/XXXX	xx.x%/xx.x%	xx.x%	$ 25,000	$	$	$	$	$ 23,509	$ 25,571
Loan 2	City, State	Mezz loan	1/1/XXXX	1/1/XXXX	xx.x%/xx.x%	xx.x%	44,000		43,585	43,585		42,097	42,097
Total apartment							$ 69,000	$	$ 43,585	$ 43,585	$	$ 65,606	$ 67,668
Industrial													
Loan 3	City, State	Bridge loan	1/1/XXXX	1/1/XXXX	xx.x%/xx.x%	xx.x%	$ 90,650	$ 20,000	$ 70,165	$ 72,165	$ 21,500	$ 69,150	$ 69,150
Total industrial							$ 90,650	$ 20,000	$ 70,165	$ 72,165	$ 21,500	$ 69,150	$ 69,150
Total mortgage and other loans receivable									**$ 113,750**	**$ 115,750**		**$ 134,756**	**$ 136,818**
Preferred equity in real estate													
Apartment													
Pref 1	City, State	Pref	1/1/XXXX	1/1/XXXX	xx.x%	xx.x%	$ 13,600	$	$ 7,865	$ 8,820	$	$ 2,701	$ 2,978
Pref 2	City, State	Pref	1/1/XXXX	1/1/XXXX	xx.x%	xx.x%	36,283	15,000	27,641	28,845	15,000	24,641	24,782
Total apartment							$ 49,883	$ 15,000	$ 35,506	$ 37,665	$ 15,000	$ 27,342	$ 27,760
Industrial													
Pref 3	City, State	Pref	1/1/XXXX	1/1/XXXX	xx.x%	xx.x%	$	$	$ 18,519	$ 20,749	$	$ 14,519	$ 15,011
Pref 4	City, State	Pref	1/1/XXXX	1/1/XXXX	xx.x%	xx.x%			19,074	20,496		$	$
Total industrial							$	$	$ 37,593	$ 41,245	$	$ 14,519	$ 15,011
Total preferred equity in real estate									**$ 73,099**	**$ 78,910**		**$ 41,861**	**$ 42,771**
Debt securities													
Investment 1	Various	CMBS	1/1/XXXX	1/1/XXXX	xx.x%	xx.x%	$ 55,000	$	**$ 20,000**	**$ 25,000**	**$**	**$**	**$**
Real estate owned													
Apartment	City, State	N/A	1/1/XXXX						**$ 23,509**	**$ 22,000**			

5. LINE OF CREDIT, NOTES PAYABLE, AND REPURCHASE FACILITIES

Line of credit, notes payable and repurchase facilities consist of the following as of December 31, 20CY and XXPY:

Footnote 5 - Line of Credit, Notes Payable and Repurchase Facility

	Maximum Facility Size	20CY Cost	20CY Fair Value	20PY Cost	20PY Fair Value	Interest Rate [1]	Weighted Average Interest Rate	Maturity Date	Terms [2]
Line of credit									
Line of credit	$ 100,000	$ 43,000	$ 43,000	$ 51,000	$ 51,000	Weekly Variable [3]	5.25%	XXXX	I
Total line of credit	**$ 100,000**	**$ 43,000**	**$ 43,000**	**$ 51,000**	**$ 51,000**				
Notes payable									
Note payable #1		$ 30,000	$ 29,153	$ 30,000	$ 28,967	SOFR (30-day) + x.xx%	7.80%	XXXX	I, PP
Note payable #2		35,000	32,986	35,000	32,723	SOFR (30-day) + x.xx%	6.10%	XXXX	I
Note payable #3		15,000	14,976		0	SOFR (30-day) + x.xx%	6.50%	XXXX	I
Total notes payable		**$ 80,000**	**$ 77,115**	**$ 65,000**	**$ 61,690**				
Repurchase facilities									
Repurchase facility #1	$ 50,000	$ 32,500	$ 32,500	$ -	$ -	x.xx%	6.82%	XXXX	I
Total repurchase facility	**$ 50,000**	**$ 32,500**	**$ 32,500**	**$ -**	**$ -**				
Total	**$ 150,000**	**$ 155,500**	**$ 152,615**	**$ 116,000**	**$ 112,690**				

[1] As of December 31, 20CY, SOFR was x.xxxx%.

[2] Loan Terms PP=Prepayment penalties applicable to loan, I=Interest only, P&I=Principal and Interest

[3] The Weekly Variable Rate shall be the minimum rate of interest necessary, in the professional judgment of the Remarketing Agent, taking into consideration prevailing market conditions, to enable the Remarketing Agent to remarket all of the Bonds on the applicable Rate Determination Date at par plus accrued interest on the bonds for that week.

The Fund has a Repurchase Agreement ("RA") with a lender that has a capacity of $XXX and an option to upsize to $XXX. Under the RA, the Fund's wholly-owned subsidiary will sell eligible loans to the lender with a simultaneous agreement by the lender to sell the loans back upon request of the Fund (subject to contractually defined parameters) on the related repurchase date. The Fund can revolve eligible loans on and off the facility as per the RA. In accordance with ASC 860-30, *Secured Borrowing and Collateral*, the Fund has accounted for the sale of the loans under the RA as secured borrowings as the Fund's subsidiaries maintain effective control over the transferred loans and investments.

The interest rate under the RA is dependent on the type of investment, generally within a predetermined range and is determined on a loan by loan basis. The Fund has pledged mortgage and other loans receivable

investments with an estimated fair value of $XXX as of December 31, 20CY as collateral to the RA. The Fund may be required to post margin under the RA if there is a material adverse change in the credit characteristics of a particular loan with respect to the underlying property, borrower, or particular real estate market. The Fund was not required to post any margin under the RA as of December 31, 20CY.

The following table shows the aggregate amount of maturities of the Fund's debt obligations over the next five years and thereafter as of December, 20CY:

Year Ended December 31		
20CY+1	$	-
20CY+2		43,000
20CY+3		30,000
20CY+4		35,000
20CY+5		-
Thereafter		47,500
Total	**$**	**155,500**

The Fund's loan agreements contain financial and non-financial covenants, including requirements regarding net assets, leverage ratio, and debt service coverage ratio. The Fund believes it was in compliance with all covenants as of and for the year ended December 31, 20CY.

The Fund has evaluated its debt instruments to identify those maturing over the next 12 months. The Fund has $XX of debt maturing within the next 12 months, which it intends to settle through refinance or repayment with cash from financings, or net cash flows from operations.

6. PARTNERS' CAPITAL

The notes to the consolidated financial statements provide only general information pertaining to the Agreement. [Members] [Limited Partners] should refer to the applicable Agreement for a more complete description of the Agreement provisions.

Committed Capital

[Closed end fund example] As of XXX the Partnership has total commitments of $XXXX. The General Partner may call capital up to the amount of unfunded commitments to enable the Fund to make or acquire investments, pay fund expenses or meet other reserve needs for the Fund. The total unfunded commitment as of XXXX is $XXXX. The ratio of total contributed capital to total committed capital is XX% as of XXXX.

Capital Contributions

[insert language from Agreement]

Capital Withdrawals and Distributions

[insert language from Agreement]

Allocation of Profits and Losses

[insert language from Agreement]

[Carried Interest] [Profit Split] [Promote]

[insert language from Agreement]

Clawback

[insert language from Agreement]

7. RELATED PARTY FEES AND AFFILIATE TRANSACTIONS

Note: *The below examples are illustrative only and may not represent a comprehensive list of related party/affiliate transactions for a specific Fund. The intent is to provide full transparency of related party and affiliate transactions of each Fund. Some Investment Managers or General Partners may decide to disclose additional detailed information about related party or affiliate transactions in a separate report to investors.*

Third-party payments facilitated by the Investment Advisor/General Partner that are subsequently reimbursed by the Fund do not meet the definition of related party transactions under ASC 850.

The examples include various fees and expenses that may be paid to the Investment Advisor/General Partner and do not necessarily correspond to the types of fees used to calculate the net of fee returns or for performance assessments.

This disclosure is not a tool to be used for comparison across Funds.

The Fund incurred investment management fees and origination fees of $x,xxx and $x,xxx, respectively, for the year ended December 31, 20CY and $x,xxx and $x,xxx, respectively, for the year ended December 31, 20PY as illustrated below.

Investment Management Fees - The Fund has engaged the [Investment Advisor] [General Partner] to provide investment management and other services. Below is a detailed summary of the fees incurred for these services for the years ended December 31, 20CY and 20PY as well as where they are recorded in the consolidated financial statements:

Footnote 6 - Related Party Fees

Investment Management Fees:	Financial Statement Caption	Year Ended 20CY	Year Ended 20PY	Fee Description
Loan Origination	Financing costs	xxx,xxx	xxx,xxx	XX bp of Projected principal balance
Investment Management	Investment management fees	xxx,xxx	xxx,xxx	X% of Net operating income
Total Investment Management Fees		**$xxx,xxx**	**$xxx,xxx**	

[Add additional fee description details as appropriate]

Investment management fees and origination fees totaling $xx,xxx and $xx,xxx were payable at December 31, 20CY and 20PY, respectively, and are included in investment management fees payable within the consolidated statements of net assets.

Other Related Party Transactions with the [Investment Advisor] [General Partner]

[Add more details of any additional related party relationships between the Fund and Investment Advisor/General Partner or for related party transactions where the manager allocates expenses across multiple Funds as appropriate]

8. FINANCIAL HIGHLIGHTS — Open End Fund Example for a Non-Unitized Fund (Required only for entities reporting as investment companies within the scope of ASC 946)

The Fund computes net assets on a quarterly [monthly] basis. An individual limited partner's total return and average net assets may differ due to the timing of contributions and redemptions. The financial highlights for the years ended December 31, 20CY and 20PY are as follows:

Footnote 8 - Financial Highlights

	December 31, 20CY	December 31, 20PY
Net assets, beginning of period	**$ 134,032**	**$ 95,799**
Income in net assets resulting from operations:		
Net investment income, before asset management fees	30,313	31,809
Net unrealized gain	9,461	5,324
Total income from investment operations, before management fees	39,774	37,133
Investment management fees	5,400	5,320
Total income from investment operations	34,374	31,813
Net increase resulting from capital transactions	12,063	6,420
Net assets, end of period	**$ 180,469**	**$ 134,032**
Total return, before management fees[1]:	**26.3%**	**24.5%**
Total return, after management fees[1]:	**22.7%**	**21.0%**
Ratios to average net assets[2]:		
Total expenses	21.3%	14.6%
Net investment income	16.5%	17.5%

[1] Total Return, before / after investment management fees is calculated by geometrically linking quarterly returns which are calculated using the formula below:

$$\frac{\text{Net Investment Income before / after Asset Management Fees + Net Unrealized Gains (Losses)}}{\text{Beg. Net Asset Value + Time Weighted Contributions - Time Weighted Distributions}}$$

[2] Average net assets are based on beginning of quarter net assets.

9. COMMITMENTS AND CONTINGENCIES

The Fund is from time to time involved in legal actions arising in the ordinary course of business. The outcome of such matters is not expected to have a material adverse effect on the Fund's consolidated financial statements.

The Fund has investments for which it is contractually obligated to fund additional capital after initial funding. Such additional funding is generally provided in the ordinary course of business and includes unfunded commitments under investments in mortgage and other loans receivable. The unfunded commitments consist of funding for leasing costs, interest reserves and capital expenditure. Funding depends on the timing

of lease-up, renovation and capital improvements as well as satisfaction of certain cash flow tests. Therefore, the exact timing and amounts of such future loan fundings are uncertain. As of December 31, 20CY, the Fund was committed to future funding obligations of $XXXX on previously closed investments

10. SUBSEQUENT EVENTS

The Fund has evaluated events subsequent through XXXX X, XXCY+1, the date the financial statements were available for issuance.

* * * * * *

Appendix C-2: Illustrative Financial Statements – Non-Operating Model (Net) Presentation

The accompanying financial statements are illustrative only and provide a general format for annual financial statements prepared on a fair value basis of accounting. Disclosures included in the illustrative financial statements are not intended to be comprehensive and are not intended to establish preferences among alternative disclosures.

Note: There is diversity in practice amongst private real estate funds from a report presentation standpoint. For purposes of the attached example financial statements, the following bullet points highlight the presentation utilized herein:

- The accompanying financial statements represent an open-end debt fund presenting as an investment company (ASC 946) based on the non-operating (net) model

- The accompanying financial statements are presented on a comparative basis; however, single year presentation is also an acceptable form of presentation in accordance with GAAP

Refer to Appendix C-1 for an example of operating model (gross) presentation. Also note that certain funds may issue single-year financial statements only.

XYZ Debt Fund

Non-Operating (Net) Model

Consolidated Financial Statements for the Years Ended December 31, 20CY and 20PY

XYZ DEBT FUND

CONSOLIDATED STATEMENTS OF NET ASSETS
AS OF DECEMBER 31, 20CY AND 20PY (in thousands)

	20CY	20PY
Assets:		
Real estate investments - at fair value:		
Mortgage and other loans receivable (cost of $113,750 and $134,756, respectively)	$ 115,750	$ 136,818
Investment in real estate preferred equity (cost of $73,099 and $41,861, respectively)	78,910	42,771
Debt securities (cost of $20,000 and $0, respectively)	25,000	-
Real estate owned (cost of $23,509 and $0, respectively)	23,225	-
Total real estate investments	$ 242,885	$ 179,589
Cash and cash equivalents	87,780	62,692
Interest and other receivables	3,178	2,131
Other assets	2,591	5,695
Total assets	**$ 336,434**	**$ 250,107**
Liabilities:		
Line of credit - at fair value (cost of $43,000 and $51,000, respectively)	43,000	51,000
Fund level notes payable - at fair value (cost of $80,000 and $65,000, respectively)	77,115	61,690
Repurchase facilities - at fair value (cost of $32,500 and $0, respectively)	32,500	-
Investment management fees payable	1,350	1,330
Other liabilities	2,000	2,055
Total liabilities	**$ 155,965**	**$ 116,075**
Net assets:	**$ 180,469**	**$ 134,032**

See accompanying notes to the consolidated financial statements.

For illustrative purposes only - Debt Fund non-operating model financial statements

XYZ Debt Fund
Consolidated Schedules of Investments
As of December 31, 20CY AND 20PY (in thousands)

Investment	City, State	Loan Type	Maturity Date	Interest Rate (fixed/variable)	December 31, 20CY Investment at Cost	December 31, 20CY Investment at Fair Value	December 31, 20PY Investment at Cost	December 31, 20PY Investment at Fair Value
Mortgage and other loans receivable								
Apartment								
Loan 1	City, State	Senior	1/1/XXXX	xx.x%/xx.x%	$	$	$ 23,509	$ 25,571
Loan 2	City, State	Mezz	1/1/XXXX	xx.x%/xx.x%	43,585	43,585	42,097	42,097
Total apartment					$ 43,585	$ 43,585	$ 65,606	$ 67,668
Industrial								
Loan 3	City, State	Senior	1/1/XXXX	xx.x%/xx.x%	$ 70,165	$ 72,165	$ 69,150	$ 69,150
Total industrial					$ 70,165	$ 72,165	$ 69,150	$ 69,150
Total mortgage and other loans receivable (x% of NAV)					**$ 113,750**	**$ 115,750**	**$ 134,756**	**$ 136,818**
Preferred equity in real estate								
Apartment								
Pref 1	City, State	Pref	1/1/XXXX	xx.x%	$ 7,865	$ 8,820	$ 2,701	$ 2,978
Pref 2	City, State	Pref	1/1/XXXX	xx.x%	27,641	28,845	24,641	24,782
Total apartment					$ 35,506	$ 37,665	$ 27,342	$ 27,760
Industrial								
Pref 3	City, State	Pref	1/1/XXXX	xx.x%	$ 18,519	$ 20,749	$ 14,519	$ 15,011
Pref 4	City, State	Pref	1/1/XXXX	xx.x%	19,074	20,496		
Total industrial					$ 37,593	$ 41,245	$ 14,519	$ 15,011
Total preferred equity in real estate (x% of NAV)					**$ 73,099**	**$ 78,910**	**$ 41,861**	**$ 42,771**
Debt securities								
Investment 1	Various	CMBS	1/1/XXXX	xx.x%	$ 20,000	$ 25,000	$	$
Total debt securities (x% of NAV)					**$ 20,000**	**$ 25,000**	**$**	**$**

Investment	City, State	Ownership	Acquisition Date	Square Feet (Unaudited)	December 31, 20CY Cost	December 31, 20CY Fair Value	December 31, 20PY Cost	December 31, 20PY Fair Value
Real estate owned								
Apartment	City, State	WO	1/1/XXXX	xxx	$ 23,509	$ 23,225	$	$
Total apartment					23,509	23,225	-	-
Total real estate owned (x% of NAV)					**$ 23,509**	**$ 23,225**	**-**	**-**
Total Real Estate Investments					**$ 230,358**	**$ 242,885**	**$ 176,617**	**$ 179,589**

WO - Wholly Owned Investment
Mezz - Mezzanine loan
Pref - Preferred equity
CMBS - Commercial mortgage-backed security

See accompanying notes to the consolidated financial statements.

For illustrative purposes only - Debt Fund non-operating model financial statements

Note: GAAP requirement is to only disclose assets that are greater than 5% of NAV but funds may elect to disclose all assets

XYZ DEBT FUND

CONSOLIDATED STATEMENTS OF OPERATIONS
FOR THE YEARS ENDED DECEMBER 31, 20CY AND 20PY (in thousands)

	20CY	20PY
Investment income:		
Interest income on mortgage and other loans receivable	$ 38,140	$ 25,572
Fee income	1,316	9,643
Equity income from investment in real estate preferred equity	15,164	13,424
Income distributions from real estate owned	825	-
Other income	11	13
Total investment income	**55,906**	**48,652**
Expenses:		
[Fund level] interest expense	22,467	12,127
[Fund level] general and administrative expense	1,909	2,454
Investment management fees	5,400	5,320
[Fund level] financing costs	992	2,262
Total expenses	**30,768**	**22,163**
Net investment income	**24,688**	**26,489**
Net realized gain (loss):		
Net realized gain, net	1,289	-
Net unrealized gain (loss):		
Unrealized gain on mortgage and other loans receivable	2,000	2,389
Unrealized gain on preferred equity in real estate	5,168	1,385
Unrealized gain on debt securities	5,000	-
Unrealized loss on real estate owned	(3,346)	-
Unrealized gain on repurchase facilities	-	-
Unrealized gain (loss) on notes payable	(425)	1,550
Net realized and unrealized gain	**9,686**	**5,324**
Increase in net assets resulting from operations	**$ 34,374**	**$ 31,813**

See accompanying notes to the consolidated financial statements.

For illustrative purposes only - Debt Fund non-operating model financial statements

XYZ DEBT FUND

CONSOLIDATED STATEMENTS OF CHANGES IN NET ASSETS
FOR THE YEARS ENDED DECEMBER 31, 20CY AND 20PY (in thousands)

	XYZ DEBT FUND	
Net assets - December 31, 20PY-1	**$**	**95,799**
From operations:		
Net investment income		26,489
Net realized and unrealized gain		5,324
Increase in net assets resulting from operations		31,813
From capital transactions:		
Contributions		11,250
Distributions		(4,830)
Increase in net assets resulting from capital transactions		6,420
Increase in net assets		38,233
Net assets - December 31, 20PY	**$**	**134,032**
From operations:		
Net investment income		24,688
Net realized and unrealized gain		9,686
Increase in net assets resulting from operations		34,374
From capital transactions:		
Contributions		14,388
Distributions		(2,325)
Increase in net assets resulting from capital transactions		12,063
Increase in net assets		46,437
Net assets - December 31, 20CY	**$**	**180,469**

See accompanying notes to the consolidated financial statements.

For illustrative purposes only - Debt Fund non-operating model financial statements

CONSOLIDATED STATEMENTS OF CASH FLOWS
FOR THE YEARS ENDED DECEMBER 31, 20CY AND 20PY (in thousands)

	20CY	20PY
Cash flows from operating activities:		
Increase in net assets resulting from operations	$ 34,374	$ 31,813
Adjustments to reconcile increase in net assets resulting from operations to net cash flows from operating activities:		
Investments - at fair value:		
Net realized and unrealized gain	(9,686)	(5,324)
Investments in mortgage and other loans receivable	(3,063)	(51,000)
Principal collections on mortgage and other loans receivable	560	-
Investments in preferred equity in real estate	(41,339)	(16,600)
Net proceeds from investment pay-off / sale	11,657	-
Investment in debt securities	(20,000)	-
Financing costs	992	2,262
Changes in other assets and liabilities:		
Interest and other receivable	(1,047)	(1,056)
Other assets	2,104	2,750
Investment management fees payable	20	(155)
Other liabilities	(55)	(110)
Net cash flow used in operating activities	**(25,483)**	**(37,420)**
Cash flows from financing activities:		
Proceeds from line of credit	12,500	21,792
Proceeds from notes payable	15,000	35,000
Principal payments on line of credit	(20,500)	(8,000)
Principal payments on notes payable	-	(10,000)
Proceeds from repurchase facilities	37,500	-
Repayments to repurchase facilities	(5,000)	-
Payment of financing costs	(992)	(2,262)
Contributions	14,388	11,250
Distributions	(2,325)	(4,830)
Net cash flow provided by financing activities	**50,571**	**42,950**
Net change in cash and cash equivalents	**25,088**	**5,530**
Cash and cash equivalents — Beginning of year	62,692	57,162
Cash and cash equivalents — End of year	**$ 87,780**	**$ 62,692**
Supplemental cash flow information:		
Cash paid for [fund level] interest during the year	$ 21,805	$ 11,214
Conversion of mortgage notes receivable to real estate owned through deed in lieu of foreclosure (See Note 4)	$ 25,571	-
Conversion of property level working capital to real estate owned through deed in lieu of foreclosure (See Note 4)	$ 1,000	

See accompanying notes to the consolidated financial statements.

For illustrative purposes only - Debt Fund non-operating model financial statements

XYZ REAL ESTATE ACCOUNT

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
YEARS ENDED DECEMBER 31, 20CY AND 20PY
($ in thousands)

1. ORGANIZATION

XYZ Real Estate Fund, LP (referred to with its subsidiaries collectively as the "Fund") is a Delaware limited partnership formed on XXXXXX and which commenced operations on XXXXXX. The Fund is organized as a perpetual life, open-ended commercial mortgage debt fund, in accordance with the Partnership Agreement (the "Agreement") between General Partner LLC (the "General Partner"), a Delaware limited liability company, and other investors (the "Limited Partners").

The Fund is in the business of making investments in senior loans, mortgages, structured debt products, preferred equity, and mezzanine loans to commercial real estate assets located in the United States.

The managing member of the General Partner is a wholly-owned subsidiary of the Investment Advisor [Manager] ("ABC" or "Investment Advisor [Manager]") and has ultimate responsibility for the management and operations of the Fund.

Total unfunded capital commitments from investors were $XXX and $XXX as of December 31, 20CY and 20PY, respectively.

The term of the Fund shall continue in existence until XXXXXX pursuant to the provisions of the Agreement.

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Basis of Presentation — Under Financial Accounting Standards Board ("FASB") Accounting Standards Codification ("ASC") 946, *Financial Services – Investment Companies* ("ASC 946"), the Fund qualifies as an investment company. The accompanying consolidated financial statements of the Fund have been presented in conformity with accounting principles generally accepted in the United States of America ("GAAP") and include the accounts of each of the Fund's wholly owned subsidiaries. All intercompany balances and transactions have been eliminated in consolidation.

Use of estimates — The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the amounts reported in the financial statements and accompanying notes. Actual results could differ from these estimates. The Fund's estimates of fair value are based on the best information available to management at the date of valuation. Amounts ultimately realized from each investment may vary significantly from the fair values presented.

Real estate and capital markets are cyclical in nature. Property and debt investment values are affected by, among other things, the availability of capital, occupancy rates, rental rates and interest and inflation rates. As a result, determining real estate and debt investment values involves many assumptions. Amounts ultimately realized from each investment may vary significantly from the fair values presented.

Debt investments – Investments in mortgage and other loans receivable, preferred equity in real estate, debt securities and real estate investments are carried at fair value in accordance with FASB ASC 820, *Fair Value Measurement* ("ASC 820"). See Note 3 for further detail.

Real estate owned — Investments in real estate owned are carried at fair value. Development costs and major renovations are capitalized as a component of cost, and routine maintenance and repairs are charged to expense as incurred.

The fair value of the real estate property received through foreclosure represents the initial component of the real estate investment costs.

[Refer to Section 3.06 of the Debt Fund Manual for further background on initial accounting treatment.]

Investment valuation — Debt and real estate investment values are based upon independent appraisals, estimated sales proceeds or the Investment Advisor's opinion of value. Such values have been identified for investment and portfolio management purposes only; the Fund reserves its right to pursue full remedies for the recovery of its investments and other rights. The fair value of real estate investments does not reflect transaction sale costs, which may be incurred upon disposition of the real estate investments.

The estimated fair value of debt and real estate related assets is determined through an appraisal process. These estimated fair values may vary significantly from the prices at which the investments would sell as market prices of these investments can only be determined by negotiation between a willing buyer and seller. Although the estimated fair values represent subjective estimates, management believes these estimated fair values are reasonable approximations of market prices.

Cash and cash equivalents — Cash and cash equivalents are comprised of cash and short-term investments with original maturity dates of less than ninety days from the date of purchase.

Through our subsidiaries, we have oversight of certain servicing accounts held with third-party servicers, or servicing accounts, which relate to borrower escrows and other cash balances aggregating $XXX and $XXX as of December 31, 20CY and 20PY, respectively. This cash is maintained in segregated bank accounts, and these amounts are not included in the assets and liabilities presented in our consolidated statements of net assets. Cash in these servicing accounts will be transferred by the respective third-party servicer to the borrower or us under the terms of the applicable loan agreement upon occurrence of certain future events. We do not generate any revenue or incur any expenses as a result of these servicing accounts.

The Fund invests its cash primarily in deposits and money market funds with commercial banks. At times, cash balances at a limited number of banks and financial institutions may exceed federally insured amounts. The Fund believes it mitigates credit risk by depositing cash in or investing through major financial institutions. In addition, in the normal course of business, the Fund extends credit to its tenants, which consist of local, regional and national based tenants. The Investment Advisor does not believe this represents a material risk of loss with respect to its financial position.

Interest receivable – Interest receivable is recognized on an accrual basis based on contractual amounts provided for in the loan agreements or other legal documents.

Line of credit and notes payable – The line of credit and notes payable are shown at fair value in accordance with ASC 820. See Note 3 for further details.

Repurchase facility —The repurchase facility is shown at fair value in accordance with ASC 820. See Note 3 for further details. Interest expense related to the facility is accrued periodically based on the contractual interest rate and facility terms and is included in net investment income within the consolidated statements of operations.

Financing Costs — Financing costs associated with the line of credit, fund level notes payable, and repurchase facility are expensed as incurred. For the years ended December 31, 20CY and 20PY, the Fund incurred financing costs of $xx,xxx and $xx,xxx, respectively.

Revenue recognition — Interest income on mortgages and other loans receivable is recognized when the current interest is earned and receivable in accordance with the loan agreements.

[Section to consider if there are non-performing loans] The Fund considers a loan receivable to be non-performing and places loans on non-accrual status at such time as: (1) the fair value of the collateral as determined under the liquidation model is not sufficient to cover the loan's principal and accrued interest; (2) the loan has a maturity default; and/or (3) management determines it is probable that the amounts due according to the contractual terms of the loan will not be collected. While on non-accrual status, the Fund will continue to assess the collectability based on its judgment and measurement methods that are practical and relevant to the specific loan situation. Interest income will cease to be accrued during this time and debt service payments received from the borrower will be applied first to reduce outstanding principal until principal amounts are fully repaid. Any remaining cash receipts will then be recognized as interest income applying the effective interest method to determine the amount of interest income to be recognized for the period.

Fee income consists of origination fees, commitment fees, non-refundable underwriting fees, due diligence fees, prepayment fees and extension fees collected from borrowers and third-party owner/operators and is recognized when the fees are collected, in accordance with the associated loan agreements.

Income from investment in real estate preferred equity is recorded in accordance with the terms of the underlying agreement. Any preferred equity payment amounts that are deferred until the redemption date are recorded as unrealized gain on preferred equity in real estate within the consolidated statements of operations.

Income distributions from real estate owned — Distributions from real estate properties are recognized as income when received to the extent such amounts are paid from earnings and profits of the underlying investee.

Investment management fees — Investment management fees include asset management fees and investment acquisition fees charged by ABC. Such amounts are reflected in the accompanying consolidated financial statements when incurred.

Income taxes — The Fund is a partnership for U.S. income tax purposes. Under present US law, individual partners are liable for income taxes on their share of the Fund's income. The Fund itself is not liable for any U.S. federal, state, or local income taxes.

FASB ASC 740, *Income Taxes* (ASC 740), provides guidance for how uncertain tax positions should be recognized, measured, presented and disclosed in the consolidated financial statements. ASC 740 requires the evaluation of tax positions taken in the course of preparing the Fund's tax returns to determine whether tax positions are "more-likely-than-not" of being sustained by the applicable tax authority. Tax benefits of

positions not deemed to meet the more-likely-than-not threshold would be recorded as a tax expense in the current year. For the years ended December 31, 20CY and 20PY, there have been no uncertain tax positions.

Concentration of market and credit risk

Concentrations of market and credit risk may exist with respect to the Fund's investments and its other assets and liabilities. Market risk is a potential loss the Fund may incur as a result of changes in the recoverable value of its investments. The Fund may also be subject to risk associated with concentrations of investments in geographic regions and industries. As of December 31, 20CY, the Fund's investments were not concentrated in a particular geographic region or industry.

Credit risk includes the possibility that a loss may occur from the failure of counterparties, such as the Fund's borrowers, to make payments according to the terms of the loan agreements. The Fund's exposure to credit risk at any point in time is generally limited to amounts recorded as assets on the consolidated statements of net assets.

Recently issued accounting standards

Accounting Standard Updates (ASU) recently issued that may be applicable to users of this manual include the following[19]:

- None noted for the year ended December 31, 2024. Open to update in future periods.

Impact of accounting standards not yet adopted — [to be tailored to each year at management's discretion.]

3. FAIR VALUE MEASUREMENTS

The Fund accounts for its investments in accordance with the provisions of ASC 820. ASC 820 establishes fair value measurement framework, provides a single definition of fair value, and requires expanded disclosure summarizing fair value measurements. ASC 820 emphasizes that fair value is a market-based measurement, not an entity-specific measurement. Therefore, a fair value measurement should be determined based on the assumptions that market participants would use in pricing an asset or liability.

The standard establishes a hierarchy for inputs used in measuring fair value that maximizes the use of observable inputs and minimizes the use of unobservable inputs by requiring that the most observable input be used when available. Observable inputs are inputs that the market participants would use in pricing the asset or liability developed based on market data obtained from sources independent of the Fund. Unobservable inputs are inputs that reflect the Fund's assumptions about the assumptions market participants would use in pricing the asset or liability developed based on the best information available in the circumstances. The hierarchy is measured in three levels based on the reliability of inputs:

Level 1— Valuations based on quoted prices in active markets for identical assets or liabilities that the Fund has the ability to access.

Level 2 — Valuations based on quoted prices in less active, dealer or broker markets. Fair values are primarily obtained from third party pricing services for identical or comparable assets or liabilities.

[19] Additional ASUs may be applicable, as determined by management.

Level 3 — Valuations derived from other valuation methodologies, including pricing models, discounted cash flow models and similar techniques, and not based on market, exchange, dealer, or broker-traded transactions. Level 3 valuations incorporate certain assumptions and projections that are not observable in the market and use significant professional judgment in determining the fair value assigned to such assets or liabilities.

In instances where the determination of the fair value measurement is based on inputs from different levels of the fair value hierarchy, the level in the fair value hierarchy within which the entire fair value measurement falls is based on the lowest level input that is significant to the fair value measurement in its entirety.

The following is a description of the valuation techniques used for items measured at fair value:

Mortgage and other loans receivable — The fair value of mortgage and other loans receivable held by the Fund have been determined by one or more of the following criteria as appropriate: (i) on the basis of estimated market interest rates for loans of comparable quality and maturity, (ii) by recognizing the value of equity participations and options to enter into equity participations contained in certain loan instruments and (iii) giving consideration to the value of the underlying collateral. The Fund's mortgage and other loans receivable are classified within level 3 of the valuation hierarchy. The fair values of mortgage and other loans receivable are determined by discounting future contractual cash flows to the present value using a current market interest rate, which is updated quarterly by personnel responsible for the management of each investment and reviewed by senior management at each reporting period.

Investment in real estate preferred equity – The fair values of preferred equity in real estate investments are stated at the fair value of the Fund's preferred equity interests in the underlying entities in accordance with the terms of the agreement, which may be impacted by the value of underlying real estate, any related mortgage loans, and other factors such as ownership rights and distribution provisions. The underlying assets and liabilities are generally valued consistently with the techniques as described above for mortgage and other loans receivable and below for real estate and improvements. The Fund's preferred equity in real estate investments are generally classified within Level 3 of the valuation hierarchy.

Debt securities —

[Option 1] Equity securities listed or traded on any national market or exchange are valued at the last sale prices as of the close of the principal securities exchange on which such securities are traded or, if there is no sale, at the mean of the last bid and asked prices on such exchange, exclusive of transaction costs. Such marketable securities are classified within level 1 of the valuation hierarchy.

[Option 2] Debt securities are generally valued at the most recent bid price of the equivalent quoted yield for such securities (or those of comparable maturity, quality, and type). Debt securities are generally classified within level 2 of the valuation hierarchy.

[Option 3] The fair value of the debt securities is determined using a discounted cash flow model. This model estimates the present value of expected future cash flows, which are discounted using a rate that reflects the credit risk of the issuer and current market conditions.

Real estate and improvements – The fair values of real estate and improvements have been prepared giving consideration to the income (direct capitalization and discounted cash flows), cost, and sales comparison approaches of estimating property value. The direct capitalization approach estimates a stabilized net operating income and capitalizes it at a yield rate. The discounted cash flow income approach estimates an

income stream for a property (typically 10 years) and discounts this income plus a reversion (presumed sale) into a present value at a risk-adjusted rate. Yield rates, growth assumptions, and leasing terms utilized in both income approaches are derived from market transactions, where available, as well as other financial and industry data. The cost approach estimates the replacement cost of the building less physical depreciation plus the land value. Generally, this approach provides a validation on the value derived using the income approach. The sales comparison approach compares recent transactions to the appraised property. Adjustments are made for dissimilarities which typically provide a range of value. Generally, the income approaches carry the most weight in the value reconciliation. The Fund's real estate and improvements are generally classified within Level 3 of the valuation hierarchy.

Line of credit – The fair value of the line of credit is determined by discounting the future contractual cash flows to the present value using a current market interest rate. The market rate is determined by giving consideration to one or more of the following criteria as appropriate: (i) interest rates for loans of comparable quality and maturity, and (ii) the value of the underlying collateral. The Fund's line of credit facility is generally classified within level 3 of the valuation hierarchy. The Fund makes frequent draws and paydowns on the credit facility at market rates, and as such, the credit facility is recorded based on contractual outstanding principal balances, which is the best estimate of fair value as of December 31, 20CY and 20PY.

Notes payable and repurchase facilities — The fair values of notes payable and repurchase facilities are determined by discounting the future contractual cash flows to the present value using a current market interest rate. The market rate is determined by giving consideration to one or more of the following criteria as appropriate: (i) interest rates for loans of comparable quality and maturity, and (ii) the value of the underlying collateral. The Fund's notes payable and repurchase facilities are generally classified within level 3 of the valuation hierarchy. The significant unobservable inputs used in the fair value measurement of the Fund's notes payable are the loan to value ratios and the selection of certain credit spreads and weighted average cost of capital risk premiums.

Other assets and liabilities – Interest receivable, other assets, investment management fees payable, and other liabilities are recorded at cost, which approximates fair value, as these are the amounts at which they are anticipated to be realized or liquidated.

The following are the classes of assets and liabilities measured at fair value on a recurring basis during the year ended December 31, 20CY and 20PY, using unadjusted quoted prices in active markets for identical assets (Level 1); significant other observable inputs (Level 2); and significant unobservable inputs (Level 3):

Description	Level 1: Quoted Prices in Active Markets for Identical sets and Liabilities	Level 2: Significant Other Observable Inputs	Level 3: Significant Unobservable Inputs	Total at December 31, 20CY
ASSETS				
Mortgage and other loans receivable	$ -	$ -	$ 115,750	$ 115,750
Investment in real estate preferred equity	-	-	78,910	78,910
Debt securities		-	25,000	25,000
Real estate and improvements			23,225	23,225
Total real estate investments	$ -	$ -	$ 242,885	$ 242,885
LIABILITIES				
Line of credit	$ -	$ -	$ 43,000	$ 43,000
Notes payable	$ -	$ -	$ 77,115	$ 77,115
Repurchase facilities	$ -	$ -	$ 32,500	$ 32,500

Description	Level 1: Quoted Prices in Active Markets for Identical sets and Liabilities	Level 2: Significant Other Observable Inputs	Level 3: Significant Unobservable Inputs	Total at December 31, 20PY
ASSETS				
Mortgage and other loans receivable	$ -	$ -	$ 136,818	$ 136,818
Investment in real estate preferred equity	-	-	42,771	42,771
Total real estate investments	$ -	$ -	$ 179,589	$ 179,589
LIABILITIES				
Line of credit	$ -	$ -	$ 51,000	$ 51,000
Notes payable	$ -	$ -	$ 61,690	$ 61,690

The following is a reconciliation of the beginning and ending balances for assets measured at fair value on a recurring basis using significant unobservable inputs (Level 3) during the year ended December 31, 20CY and 20PY:

Description	Mortgage and other loans receivable	Investment in real estate preferred equity	Debt Securities	Real estate owned	Line of credit	Notes payable	Repurchase facilities
Beginning balance December 31, 20PY	$ 136,818	$ 42,771	$ -	$ -	$ 51,000	$ 61,690	$ -
Investments	3,063	41,339	20,000	-	-	-	-
Principal collections	(560)	-	-	-	-	-	-
Debt and repurchase facility proceeds	-	-	-	-	12,500	15,000	37,500
Repayments on debt and repurchase facilities	-	-	-	-	(20,500)	-	(5,000)
Assumption of real estate investments through deed in lieu of foreclosure	(25,571)	-	-	26,571	-	-	-
Real estate capital expenditures	-	-	-	-	-	-	-
Realized and unrealized gain / loss [1]	2,000	(5,200)	5,000	(3,346)	-	425	-
Ending balance December 31, 20CY	$ 115,750	$ 78,910	$ 25,000	$ 23,225	$ 43,000	$ 77,115	$ 32,500
	-	-	-	-	-	-	-
Beginning balance December 31, 20PY-1	$ 83,429	$ 24,786	$ -	$ -	$ 37,208	$ 38,240	$ -
Investments	51,000	16,600	-	-	-	-	-
Debt proceeds	-	-	-	-	21,792	35,000	-
Principal payments on debt	-	-	-	-	(8,000)	(10,000)	-
Realized and unrealized gain / loss [1]	2,389	1,385	-	-	-	(1,550)	-
Ending balance December 31, 20PY	$ 136,818	$ 42,771	$ -	$ -	$ 51,000	$ 61,690	$ -

[1] Optional after the adoption of ASU 2018-13

The following table shows quantitative information about significant unobservable inputs related to the level 3 fair value measurements used at December 31, 20CY and 20PY:

Footnote 3 - Fair Value Measurements

	December 31, 20CY Fair Value	December 31, 20PY Fair Value	Valuation Technique(s)	Unobservable Inputs	December 31, 20CY Ranges (Weighted Average)	December 31, 20PY Ranges (Weighted Average)
Mortgage and other loans receivable						
Apartment	$ 43,585	$ 67,668	Net present value	Credit spreads	xx% to xx% (xx%)	xx% to xx% (xx%)
				Loan to value ratio	xx% to xx% (xx%)	xx% to xx% (xx%)
				Weighted average cost of capital risk premiums	xx% to xx% (xx%)	xx% to xx% (xx%)
Industrial	$ 72,165	$ 69,150	Net present value	Credit spreads	xx% to xx% (xx%)	xx% to xx% (xx%)
				Loan to value ratio	xx% to xx% (xx%)	xx% to xx% (xx%)
				Weighted average cost of capital risk premiums	xx% to xx% (xx%)	xx% to xx% (xx%)
Investment in real estate preferred equity						
Apartment	$ 37,665	$ 27,760	Net present value	Credit spreads	xx% to xx% (xx%)	xx% to xx% (xx%)
				Loan to value ratio	xx% to xx% (xx%)	xx% to xx% (xx%)
Industrial	$ 41,245	$ 15,011	Net present value	Credit spreads	xx% to xx% (xx%)	xx% to xx% (xx%)
				Loan to value ratio	xx% to xx% (xx%)	xx% to xx% (xx%)
Debt securities						
Investment 1	$ 25,000	$ -	Net present value	Credit spreads	xx% to xx% (xx%)	N/A
				Loan to value ratio	xx% to xx% (xx%)	N/A
Real estate owned						
Office	$ 23,225	$ -	Discounted cash flows (DCF)	Discount rate	xx% to xx% (xx%)	N/A
				Terminal capitalization rate	xx% to xx% (xx%)	N/A
				DCF term	X-X years (X years)	N/A
Line of credit						
Other	$ 43,000	$ 51,000	Discounted cash flows (DCF)	Loan to value ratio	N/A - fund level debt instrument	
				Market interest rate	xx% to xx% (xx%)	xx% to xx% (xx%)
Notes payable						
Other	$ 77,115	$ 61,690	Discounted cash flows (DCF)	Loan to value ratio	N/A - fund level debt instrument	
				Market interest rate	xx% to xx% (xx%)	xx% to xx% (xx%)
Repurchase facilities						
Other	$ 32,500	$ -	Discounted cash flows (DCF)	Loan to value ratio	xx% to xx% (xx%)	N/A
				Market interest rate	xx% to xx% (xx%)	N/A

4. REAL ESTATE INVESTMENTS

The Fund's real estate investments consist of real estate loans, which are classified as mortgage and other loans receivable, preferred equity investments, debt securities and real estate and improvements.

The Fund's real estate loans are all secured by a mortgage interest in the underlying property serving as collateral. These loans do not have any participating rights in the operations of the underlying properties.

The Fund's preferred equity investments represent investments in underlying joint ventures with a separate third party. Through these joint venture arrangements, the Fund earns a preferred return based on the capital it has committed, but does not have any incremental participating rights.

The Fund's real estate and improvements represents an investment in an apartment complex location in CITY, STATE. On July XX, 20CY, the Fund's real estate loan for this investment was converted into a wholly-owned real estate asset as part of a deed in lieu of foreclosure agreement between the Fund and the borrower. As of December 31, 20CY, the property was recorded within real estate and improvements in the accompanying consolidated statement of net assets.

A summary of these investments as of December 31, 20CY and 20PY is presented in the table below.

Footnote 4 - Real Estate Investments

								December 31, 20CY			December 31, 20PY		
Investment	**City, State**	**Loan Type**	**Investment Date**	**Maturity Date**	**Interest Rate (fixed/variable)**	**Interest Rate Floor**	**Total Commitment**	**Unfunded Commitments**	**Investment at Cost**	**Investment at Fair Value**	**Unfunded Commitments**	**Investment at Cost**	**Investment at Fair Value**
Mortgage and other loans receivable													
Apartment													
Loan 1	City, State	Senior loan	1/1/XXXX	1/1/XXXX	xx.x%/xx.x%	xx.x%	$ 25,000	$	$	$	$	$ 23,509	$ 25,571
Loan 2	City, State	Mezz loan	1/1/XXXX	1/1/XXXX	xx.x%/xx.x%	xx.x%	44,000		43,585	43,585		42,097	42,097
Total apartment							$ 69,000	$	$ 43,585	$ 43,585	$	$ 65,606	$ 67,668
Industrial													
Loan 3	City, State	Bridge loan	1/1/XXXX	1/1/XXXX	xx.x%/xx.x%	xx.x%	$ 90,650	$ 20,000	$ 70,165	$ 72,165	$ 21,500	$ 69,150	$ 69,150
Total industrial							$ 90,650	$ 20,000	$ 70,165	$ 72,165	$ 21,500	$ 69,150	$ 69,150
Total mortgage and other loans receivable									**$ 113,750**	**$ 115,750**		**$ 134,756**	**$ 136,818**
Preferred equity in real estate													
Apartment													
Pref 1	City, State	Pref	1/1/XXXX	1/1/XXXX	xx.x%	xx.x%	$ 13,600	$	$ 7,865	$ 8,820	$	$ 2,701	$ 2,978
Pref 2	City, State	Pref	1/1/XXXX	1/1/XXXX	xx.x%	xx.x%	36,283	15,000	27,641	28,845	15,000	24,641	24,782
Total apartment							$ 49,883	$ 15,000	$ 35,506	$ 37,665	$ 15,000	$ 27,342	$ 27,760
Industrial													
Pref 3	City, State	Pref	1/1/XXXX	1/1/XXXX	xx.x%	xx.x%	$	$	$ 18,519	$ 20,749	$	$ 14,519	$ 15,011
Pref 4	City, State	Pref	1/1/XXXX	1/1/XXXX	xx.x%	xx.x%			19,074	20,496		$	$
Total industrial							$	$	$ 37,593	$ 41,245	$	$ 14,519	$ 15,011
Total preferred equity in real estate									**$ 83,200**	**$ 89,278**		**$ 41,861**	**$ 42,771**
Debt securities													
Investment 1	Various	CMBS	1/1/XXXX	1/1/XXXX	xx.x%	xx.x%	$ 55,000	$	**$ 20,000**	**$ 25,000**	**$**	**$**	**$**
Real estate owned													
Office 1	City, State	N/A	1/1/XXXX						**$ 23,509**	**$ 23,225**			

5. LINE OF CREDIT, NOTES PAYABLE, AND REPURCHASE FACILITIES

Line of credit, notes payable and repurchase facilities consist of the following as of December 31, 20CY and XXPY:

Footnote 5 - Line of Credit, Notes Payable and Repurchase Facility

	Maximum Facility Size	**20CY Cost**	**20CY Fair Value**	**20PY Cost**	**20PY Fair Value**	**Interest Rate** [1]	**Weighted Average Interest Rate**	**Maturity Date**	**Terms** [2]
Line of credit									
Line of credit	$ 100,000	$ 43,000	$ 43,000	$ 51,000	$ 51,000	Weekly Variable [3]	5.25%	XXXX	I
Total line of credit	**$ 100,000**	**$ 43,000**	**$ 43,000**	**$ 51,000**	**$ 51,000**				
Notes payable									
Note payable #1		$ 30,000	$ 29,153	$ 30,000	$ 28,967	SOFR (30-day) + x.xx%	7.80%	XXXX	I, PP
Note payable #2		35,000	32,986	35,000	32,723	SOFR (30-day) + x.xx%	6.10%	XXXX	I
Note payable #3		15,000	14,976		0	SOFR (30-day) + x.xx%	6.50%	XXXX	I
Total notes payable		**$ 80,000**	**$ 77,115**	**$ 65,000**	**$ 61,690**				
Repurchase facilities									
Repurchase facility #1	$ 50,000	$ 32,500	$ 32,500	$ -	$ -	x.xx%	6.82%	XXXX	I
Total repurchase facility	**$ 50,000**	**$ 32,500**	**$ 32,500**	**$ -**	**$ -**				
Total	**$ 150,000**	**$ 155,500**	**$ 152,615**	**$ 116,000**	**$ 112,690**				

[1] As of December 31, 20CY, SOFR was x.xxxx%.

[2] Loan Terms PP=Prepayment penalties applicable to loan, I=Interest only, P&I=Principal and Interest

[3] The Weekly Variable Rate shall be the minimum rate of interest necessary, in the professional judgment of the Remarketing Agent, taking into consideration prevailing market conditions, to enable the Remarketing Agent to remarket all of the Bonds on the applicable Rate Determination Date at par plus accrued interest on the bonds for that week.

The Fund has a Repurchase Agreement ("RA") with a lender that has a capacity of $XXX and an option to upsize to $XXX. Under the RA, the Fund's wholly-owned subsidiary will sell eligible loans to the lender with a simultaneous agreement by the lender to sell the loans back upon request of the Fund (subject to contractually defined parameters) on the related repurchase date. The Fund can revolve eligible loans on and off the facility as per the RA. In accordance with ASC 860-30, *Secured Borrowing and Collateral*, the Fund has accounted for the sale of the loans under the RA as secured borrowings as the Fund's subsidiaries maintain effective control over the transferred loans and investments.

The interest rate under the RA is dependent on the type of investment, generally within a predetermined range and is determined on a loan by loan basis. The Fund has pledged mortgage and other loans receivable investments with an estimated fair value of $XXX as of December 31, 20CY as collateral to the RA. The Fund may be required to post margin under the RA if there is a material adverse change in the credit characteristics of a particular loan with respect to the underlying property, borrower, or particular real estate market. The Fund was not required to post any margin under the RA as of December 31, 20CY.

The following table shows the aggregate amount of maturities of the Fund's debt obligations over the next five years and thereafter as of December, 20CY:

Year Ended December 31		
20CY+1	$	-
20CY+2		43,000
20CY+3		30,000
20CY+4		35,000
20CY+5		-
Thereafter		47,500
Total	**$**	**155,500**

The Fund has evaluated its debt instruments to identify those maturing over the next 12 months. The Fund has $XX of debt maturing within the next 12 months, which it intends to settle through refinance or repayment with cash from financings, or net cash flows from operations.

The Fund's loan agreements contain financial and non-financial covenants, including requirements regarding net assets, leverage ratio, and debt service coverage ratio. The Fund believes it was in compliance with all covenants as of and for the year ended December 31, 20CY.

6. PARTNERS' CAPITAL

The notes to the consolidated financial statements provide only general information pertaining to the Agreement. [Members] [Limited Partners] should refer to the applicable Agreement for a more complete description of the Agreement provisions.

Committed Capital

[Closed end fund example] As of XXX the Partnership has total commitments of $XXXX. The General Partner may call capital up to the amount of unfunded commitments to enable the Fund to make or acquire investments, pay fund expenses or meet other reserve needs for the Fund. The total unfunded commitment as of XXXX is $XXXX. The ratio of total contributed capital to total committed capital is XX% as of XXXX.

Capital Contributions

[insert language from Agreement]

Capital Withdrawals and Distributions

[insert language from Agreement]

Allocation of Profits and Losses

[insert language from Agreement]

[Carried Interest] [Profit Split] [Promote]

[insert language from Agreement]

Clawback

[insert language from Agreement]

7. RELATED PARTY FEES AND AFFILIATE TRANSACTIONS

Note: *The below examples are illustrative only and may not represent a comprehensive list of related party/affiliate transactions for a specific Fund. The intent is to provide full transparency of related party and affiliate transactions of each Fund. Some Investment Managers or General Partners may decide to disclose additional detailed information about related party or affiliate transactions in a separate report to investors.*

Third-party payments facilitated by the Investment Advisor/General Partner that are subsequently reimbursed by the Fund do not meet the definition of related party transactions under ASC 850.

The examples include various fees and expenses that may be paid to the Investment Advisor/General Partner and do not necessarily correspond to the types of fees used to calculate the net of fee returns or for performance assessments.

This disclosure is not a tool to be used for comparison across Funds.

The Fund incurred investment management fees and origination fees of $xxx,xxx and $xxx,xxx, respectively, for the year ended December 31, 20CY and $xxx,xxx and $xxx,xxx, respectively, for the year ended December 31, 20PY as illustrated below.

Investment Management Fees - The Fund has engaged the [Investment Advisor] [General Partner] to provide investment management and other services. Below is a detailed summary of the fees incurred for these services for the years ended December 31, 20CY and 20PY as well as where they are recorded in the consolidated financial statements:

Footnote 6 - Related Party Fees

Investment Management Fees:	Financial Statement Caption	Year Ended 20CY	Year Ended 20PY	Fee Description
Loan Origination	Financing costs	xxx,xxx	xxx,xxx	XX bp of Projected principal balance
Investment Management	Investment management fees	xxx,xxx	xxx,xxx	X% of Net operating income
Total Investment Management Fees		**$xxx,xxx**	**$xxx,xxx**	

[Add additional fee description details as appropriate]

Investment management fees and origination fees totaling $xx,xxx and $xx,xxx were payable at December 31, 20CY and 20PY, respectively, and are included in investment management fees payable within the consolidated statements of net assets.

Other Related Party Transactions with the [Investment Advisor] [General Partner]

[Add more details of any additional related party relationships between the Fund and Investment Advisor/General Partner or for related party transactions where the manager allocates expenses across multiple Funds as appropriate]

8. FINANCIAL HIGHLIGHTS — Open End Fund Example for a Non-Unitized Fund (Required only for entities reporting as investment companies within the scope of ASC 946)

The Fund computes net assets on a quarterly [monthly] basis. An individual limited partner's total return and average net assets may differ due to the timing of contributions and redemptions. The financial highlights for the years ended December 31, 20CY and 20PY are as follows:

Footnote 8 - Financial Highlights

	December 31, 20CY	December 31, 20PY
Net assets, beginning of period	**$ 134,032**	**$ 95,799**
Income in net assets resulting from operations:		
Net investment income, before asset management fees	30,088	28,943
Net unrealized gain	9,686	5,324
Total income from investment operations, before management fees	39,774	34,267
Investment management fees	5,400	2,454
Total income from investment operations	34,374	31,813
Net increase resulting from capital transactions	12,063	6,420
Net assets, end of period	**$ 180,469**	**$ 134,032**
Total return, before management fees[1]:	**26.3%**	**22.6%**
Total return, after management fees[1]:	**22.7%**	**21.0%**
Ratios to average net assets[2]:		
Total expenses	20.3%	14.6%
Net investment income	16.3%	17.5%

[1] Total Return, before / after investment management fees is calculated by geometrically linking quarterly returns which are calculated using the formula below:

$$\frac{\text{Net Investment Income before / after Asset Management Fees + Net Unrealized Gains (Losses)}}{\text{Beg. Net Asset Value + Time Weighted Contributions - Time Weighted Distributions}}$$

[2] Average net assets are based on beginning of quarter net assets.

9. COMMITMENTS AND CONTINGENCIES

The Fund is from time to time involved in legal actions arising in the ordinary course of business. The outcome of such matters is not expected to have a material adverse effect on the Fund's consolidated financial statements.

The Fund has investments for which it is contractually obligated to fund additional capital after initial funding. Such additional funding is generally provided in the ordinary course of business and includes unfunded

commitments under investments in mortgage and other loans receivable. The unfunded commitments consist of funding for leasing costs, interest reserves and capital expenditure. Funding depends on the timing of lease-up, renovation and capital improvements as well as satisfaction of certain cash flow tests. Therefore, the exact timing and amounts of such future loan fundings are uncertain. As of December 31, 20CY, the Fund was committed to future funding obligations of $XXXX on previously closed investments

10. SUBSEQUENT EVENTS

The Fund has evaluated events subsequent through XXXX X, XXCY+1, the date the financial statements were available for issuance.

* * * * * *

Sample Fund Level Presentation for Client Reporting

Debt Fund Manual Note:
Typical client reporting would include TWR (for open-end funds) or IRR (for closed-end funds), but not both. TWR and IRR are included here simply to provide sample presentation formats.

XYZ DEBT FUND
Quarterly Reporting as of 12/31/20X5

				Tier 1 Financial	Before Fee TWR (Time Weighted Return:			After Fee TWR (Time Weighted Returns			Since Inception Multiples	
Year	Assets ($000)	Leverage ($000)	Net Assets ($000)	Leverage %	Return (Loss)	(Depreciation)	Gross Return	Return (Loss)	(Depreciation)	Total Net Return	nt Multiple	Capital Multiple
Q4 20XX	890,000	380,000	510,000	43%	3.23%	0.05%	3.28%	2.23%	0.05%	2.28%	1.69	1.00
20XX	890,000	380,000	510,000	43%	13.55%	0.00%	13.55%	12.55%	0.00%	12.55%	1.65	1.00
20XX	902,500	380,000	522,500	42%	14.71%	-0.50%	14.21%	13.71%	-0.50%	13.21%	1.52	1.00
20XX	909,000	400,000	509,000	44%	14.61%	0.10%	14.71%	13.61%	0.10%	13.71%	1.37	1.00
20XX	900,000	400,000	500,000	44%	13.33%	0.00%	13.33%	12.33%	0.00%	12.33%	1.22	1.00
20XX	400,000	150,000	250,000	38%	9.10%	0.50%	9.60%	8.10%	0.50%	8.60%	1.09	0.50

Period	Annualized Gross TWR	Annualized Net TWR	Annualized Gross IRR	Annualized Net IRR
1-Year	13.55%	12.55%		
3-Year	14.15%	13.15%		
5-Year	13.08%	12.08%		
Since Inception	13.08%	12.08%	13.50%	12.50%

Notes:
Past performance is not indicative of future results. Performance includes the reinvestment of income. Additional information is available upon request.
1. Net Assets and Leverage % shown are as of year end or quarter end, as applicable.
2. Tier 1 Financial Leverage includes subscription lines, unsecured and/or secured fund level debt, and investment level secured debt.
3. Annual returns are time-weighted rates of return calculated by linking quarterly returns. Income and Appreciation returns may not equal Total Returns due to compounding effects of linking quarterly returns.
4. The time-weighted return calculations begin on the date of the portfolio's first external cash flow and end on the date of the last external cash flow. Partial periods are not dropped.
5. After Fees Returns (net returns) performance is calculated using actual fees and is net of all fund fees and expenses, including management fees and performance-based fees. Annual investment management fees are 1% of invested capital. No incentive fees have been earned.
6. Before Fee Returns and After Fee Returns represent the annual return for the given year. Q420XX returns represents non-annualized, quarterly performance as of 12/31/20XX.
7. Annualized Gross and Net Total Returns represents the annualized performance over the indicated number of periods through the most recent year end, 12/31/20XX. The start date for since inception returns is 1/1/20XX.
8. Assets (debt investments) are valued quarterly by an external valuation firm. Collateral for the debt investments is valued quarterly by the Manager and valued annually by an external valuation firm. Liabilities are valued quarterly by an external valuation firm.
9. Annualized Gross IRR has been calculated using the Level 1a fund IRR methodology and using quarterly cash flows. Gross returns are presented net of investment level costs, but do not reflect the deduction of investment management fees or fund costs. Results are presented gross (before the impact) of the subscription line but net (after the impact) of all property leverage. The terminal value utilized in the IRR calculation is equal to the NAV as of 12/31/20XX.
10. The fund utilizes a subscription line of credit. In January 20XX the fund utilized the subscription line to fund its first debt investment. The first investor capital call was September 20XX.
11. Annualized Net IRR has been calculated using the Level 4 fund IRR methodology. The Net IRR reflects the deduction of all fund costs, investment level costs, and investment management fees. Carried interest to the general partner has been accrued based on the terminal value equal to NAV as of 12/31/20XX. Limited partners pay ongoing asset management fees ranging from 0 to 150 basis points. Carried interest is charged to investors based on the waterfall hurdle and range from 0 to 200 basis points based on the terminal value equal to NAV as of 12/31/20XX.
12. Additional information, including the Fund's valuation policy, accounting policy for fees received from debt investments, and information related to investment management and performance-based fees is presented in the notes accompanying the financial statements.

APPENDIX E – ACKNOWLEDGEMENTS: DEBT FUND MANUAL TASK FORCE

Under the direction of the Reporting Standards Council and Board, the Debt Fund Task Force was established to create this Manual. Members of the Debt Fund Task Force and others who contributed to creating this Manual are:

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The Debt Fund Manual Task Force wish to acknowledge the leadership and members of the NCREIF Committees and CREFC who actively contributed to the contents of this document.

RESEARCH

	Date
Enhancing Comparability of Component Returns when Benchmarking to NFI-ODCE	December 19, 2022
ESG Principles of Reporting for Private Real Estate	October 2021
Total Global Expense Ratio: a globally comparable measure of fees and costs for real estate investment vehicles	November 2019
Gross and Net IRR: Adding transparency and comparability to closed-end fund performance and Investor Specific Reporting	August 23, 2019
Assessing and Measuring Financial Risk Related to Subordinated Debt Investments in Private U.S. Institutional Real Estate Investment Funds	July 13, 2016
Determining Investment Discretion: Guidance for Timberland Investment and Performance Reporting	October, 2013
Determining Investment Discretion: Guidance for Determining Investment Discretion for Real Estate Investment Accounts	January 3, 2012

NCREIF PREA

Reporting Standards

Guidance Paper

ENHANCING COMPARABILITY OF COMPONENT RETURNS WHEN BENCHMARKING TO NFI-ODCE

Published December 19, 2022

Enhancing Comparability of Component Returns when Benchmarking to NFI-ODCE

Background

The NCREIF Open-End Diversified Core Index (NFI-ODCE) is the most widely used and recognized index for non-listed real estate fund performance. Investment managers with funds that are not included in NFI-ODCE (for various reasons such as structure and strategy) are frequently asked by investors, internal users and other stakeholders to compare their time-weighted return (TWR) performance results to NFI-ODCE. Sometimes these comparisons are on a total TWR basis and other times, component returns (i.e., income and appreciation) are compared as well.

Frequently, inputs to TWR calculations are derived from the financial statements. Historically, there have been two primary reporting models used for financial statement presentation:

- the Operating Model, which is rooted in providing a "gross presentation" on the balance sheet and income statement (i.e., showing various categories of assets and liabilities from investments on the balance sheet and multiple revenue and expense line items on the income statement reflecting the operations of the underlying investee properties). Additionally, income is recognized as earned using accrual-based accounting rules irrespective of whether cash is distributed from investee properties up to the fund which invests in them; and

- the Non-Operating Model, which has its roots in investment company accounting and provides a "net presentation" (i.e., showing investments recorded as a single "net" line item on the balance sheet and income statement). Under this model, income is recognized as dividend income only to the extent cash generated from earnings is distributed from investee properties up to the fund which invests in them, and undistributed income is recognized as unrealized gain when the fund fair values the net working capital of its underlying investment in real estate.

A third presentation model has also existed within the industry for some time. This third model combines concepts from each of the two models above, with the balance sheet presented under the Non-Operating Model but the income statement with income recognition following the Operating Model (i.e., using accrual-based accounting also known as the equity in earnings method as opposed to recognizing pure cash distributions). This third model is often referred to as Operating Model – Net. This third model leverages concepts from both models to improve overall comparability, which is discussed in greater detail below.

It is important to note that net asset value (NAV) under either the Operating or Non-Operating Model should be the same. Accordingly, the total TWR result is also the same under both reporting models. However, due to accounting rules relating to consolidation and dividend reporting, total net income and total appreciation can be materially different depending on which presentation model is selected. There is no requirement to utilize a particular reporting model and investment advisors typically make decisions on which reporting model to use based on the needs and expectations of the investors/users of the financial statements as well as the needs of the broader investment firm. Please see the Fair Value Accounting Manual for further information and details.

A recent survey confirmed that nearly all NFI-ODCE funds utilize the Operating Model and thus recognize income as it is earned using accrual-based accounting. This is important information to know if a fund's performance is being compared or benchmarked to NFI-ODCE and the fund reports on the Non-Operating Model. Income recognition between these two models is different and thus may impact the comparability of income and appreciation component TWRs.

An illustration of the differences described above is included on the next page.

Illustration of Impact of Accounting Model on Component Return

	Operating Model (Gross)	Operating Model (Net)	Non-Operating Model (Dividend Income)
Consolidated Statements of Net Assets			
Real estate investments	$ 500	$ 200	$ 200
Notes payable	300		
Net Assets	$ 200	$ 200	$ 200
Consolidated Statements of Operations			
Revenue from real estate investments	20		
Earnings from real estate investments		13	
Income distributions from real estate equity investments (div income)			8
Total Income	20	13	8
Real estate expenses and taxes	7		
Net Investment Income	$ 13	$ 13	$ 8
Net realized and unrealized gain (loss):			
Realized gain from sales of real estate invest.	6	6	11
Less: Previously recorded unrealized gain on sales of real estate invest.	(2)	(2)	(3)
Net realized and unrealized gain from the sale of real estate invest.	4	4	8
Unrealized gain (loss) on real estate investments and improvements	5	5	6
Net realized and unrealized gain	$ 9	$ 9	$ 14
Net increase in net assets resulting from operations	$ 22	$ 22	$ 22

The Net Investment Income under the Operating Models (Gross and Net) is $13.
The Net Investment Income under the Non-Operating Model is $8.

The Net Realized and Unrealized Gain under the Operating Models (Gross and Net) is $9.
The Net Realized and Unrealized Gain under the Non-Operating Model is $14.

Total Net increase in net assets resulting from operations under all models is $22.

Component Returns under each model are:

Income Return	6.5%	6.5%	4.0%
Appreciation Return	4.5%	4.5%	7.0%
Total Return	11.0%	11.0%	11.0%

As demonstrated above, a fund's income return under the Non-Operating Model is not comparable to a benchmark income return that utilizes the Operating Model (Gross and Net) such as NFI-ODCE. Therefore, some funds will convert component returns on the investor reports to align with NFI-ODCE component returns to foster comparability.

Considerations When Adjusting Returns for Comparison to NFI-ODCE

The income return hinges upon the definition of net investment income which provides a framework of considerations when adjusting component returns for comparison to NFI-ODCE.

Under the Operating Model (Gross or Net):

- Net investment income is a measure of operating results.
- It is primarily intended to provide a measure of contractual ownership share of the operating activity, exclusive of capitalized expenditures, such as leasing commissions, tenant improvement costs, tenant inducements and other replacement cost that can be capitalized if in accordance with GAAP.
- Rental income is recognized when it is contractually billable to tenants (i.e., straight-lining of rents is not applicable when real estate is reported at fair value). The recognition of rental income matches appraisal methodology which factors in the future rental income in the determination of property value. Accruing for free rent/stepped rent would in essence be accounting for the same item twice (i.e., once in the property's valuation and aging in an accounts receivable/other asset account outside the property base).
- Expenses are generally recognized when the obligation is incurred.
- Certain expenses may be based on the investment vehicle's unrealized change in net asset value, including, for example, incentive management fees, and are recognized as a component of the unrealized gain or loss.

Disclosure When Presenting Comparison to NFI-ODCE

For performance reporting purposes and to show performance comparable to methodologies used in market practice (as in the case of NFI-ODCE), with proper disclosure, it is acceptable and common practice to convert the income and appreciation return components to reflect the underlying attributes of performance. In all cases, income metrics should correspond to the books and records of the fund, its investments, underlying properties, or legal entities. Funds that present component returns comparable to the Operating Model (Gross or Net) but have financial statements presented under the Non-Operating Model should include explicit disclosures explaining the basis for which their component returns were derived.

HANDBOOK VOLUME II: RESEARCH



NCREIF PREA

Reporting Standards

Approved | October 1, 2021

ESG Principles of Reporting for Private Real Estate

NCREIF PREA pension real estate association

INTRODUCING: ESG & DEI PRINCIPLES OF REPORTING

Given heightened interest in Environmental, Social, and Governance ("ESG") related matters throughout the real estate industry (including, but not limited to, Diversity, Equity, and Inclusion ("DEI") topics), a need for reporting guidance for relevant stakeholders has become increasingly important. As such, the NCREIF PREA Reporting Standards ("Reporting Standards") solicited volunteers to form a Think Tank and Task Force to provide its member firms with additional guidance. The Think Tank and Task Force are comprised of investors, consultants, and investment managers with varying degrees of expertise who are well-qualified to embark on this project. The mission of the project is to facilitate the establishment, management, and promotion of transparent and consistent private real estate industry best practices related to ESG reporting in order to incorporate ESG as a part of global investment operations. Additional information can be found within the project prospectus available on the Reporting Standards website.

We are pleased to present the ESG Principles of Reporting ("Principles"). *The Principles presented herein are best practices only and should not be considered requirements in order to claim compliance with the Reporting Standards*. The Principles are intended to capture all relevant reporting aspects and are not intended to be prescriptive on how they are used and implemented. Over time, it is envisioned that as more organizations implement the Principles and/or as regulatory and reporting requirements emerge, certain aspects will eventually become recommended or required topics within Volume I of the Reporting Standards.

When developing the Principles, the Think Tank and Task Force considered several factors, including, but not limited to existing standards or guidelines; differences among firms and investment strategies (e.g., core versus value-added or opportunistic strategies); vertically integrated versus third-party management; and varying levels of resources of member firms. In light of these factors, we understand that not all investment managers will be able to address every aspect of the Principles. As such, we encourage users of these Principles to address Section 1 at a minimum.

Implementing a new reporting framework, especially on a topic with significant complexity, can be a daunting task. The members of the Think Tank and Task Force should be considered a resource as several have created ESG reporting frameworks within their respective organizations[1]. We encourage investors to use these Principles as a starting point to engage with investment managers and their fellow investors on the topic of ESG.

In the coming months, the members of this project will work on the development of an accompanying excel template which will include examples of ESG key performance indicators ("KPIs") that can be used alongside these Principles. Furthermore, it is envisioned that over the following 18 months, additional materials (e.g., an ESG Best Practices Manual) to facilitate implementation of the Principles will be developed and included within Volume II of the Reporting Standards. In all endeavors, the members of this project will strive to collaborate with other industry initiatives and organizations.

[1] Members of the Think Tank and Task Force are listed on the project prospectus.

The following sections are meant to guide a firm on practices and areas of reporting. ESG programs will evolve and progress and thus responses will do the same. The sections are grouped into firm and vehicle information. Firm aspects apply to information and initiatives for firms (i.e., investment firms, subsidiaries, or divisions held out to the public as a distinct business entity). Vehicle aspects apply to information and initiatives for specific investment structures, including funds, joint ventures, club deals and separately managed accounts.

ESG & DEI PRINCIPLES OF REPORTING SECTIONS

1. Firm ESG Information
2. Vehicle ESG Overview
3. Vehicle ESG Strategy and Objectives
4. Vehicle ESG Performance

SECTION 1: FIRM ESG INFORMATION

Section 1 contains topics that are encouraged to be included in due diligence questionnaires (DDQs) or other due diligence materials provided to/by investment managers to assist investors and consultants with underwriting a potential investment in the investment manager. It is envisioned that information within this section should be provided at the time of initial interest and updated upon material changes within periodic reporting to investors.

DDQ Firm Information

1. **Firm Overview (Governance)**: Provide high level overview of the firm.
2. **Boundaries/Disclosures (Governance):** Describe any report boundaries or provide disclosures that identify any nuances associated with the information collected herein.
    a. For example, ESG program exemptions or restrictions: Are any vehicles not included in the firm-level ESG program or only participate in certain elements of the program? Explain why these vehicles are not included.
3. **Firm ESG Structure (Governance)**: Include information on ESG leadership, committees/taskforces, integration into organization, objectives, and commitments. Please indicate when committees/task forces were created, and which individuals are members. How does ESG leadership report to senior management? Include relationships with sustainability consultants and other third parties utilized to help shape ESG strategy.
4. **Firm ESG Policy (Governance)**: Indicate and describe policies in place to integrate ESG into the investment process and the latest date of the ESG policy. Please indicate when policies were created and how often they are updated/revised. If no policy is in place, note reasons why and if there are intentions of adopting a policy.
5. **Firm Culture (Social)**: Describe firm mission, vision, and work culture.
6. **Firm Employee Engagement (Social)**: Expand on employee engagement practices and health & wellness programs. Discuss if there is a process to collect employee satisfaction, promotion rates, retention metrics, and exit interview information. Are results of trend analysis on promotion and retention rates shared with employees?
7. **Firm DEI Efforts (Social)**: Describe DEI initiatives and any policy, statement, or strategy designed to address DEI. What programs are in place to attract, retain, mentor, and promote diverse employees? Comment on pay equity gap analysis, hiring and recruiting practices, internship programs that facilitate DEI, diverse hiring panels etc.
8. **ESG Training**: Explain how employees are trained on ESG topics and responsibilities and monitored on resulting ESG performance. Include any training certifications such as LEED Green Associate.
9. **Firm ESG Goals**: Indicate firm-level ESG goals, (including DEI goals), indicating both short-term and long-term goals. Is any portion of senior management compensation structure tied to achieving these goals, including DEI goals?

10. ***As applicable, Firm Industry Participation on ESG Initiatives***: Describe the firm's involvement, participation, or support of promoting ESG initiatives, including DEI efforts, within the private real estate industry. These could include, but are not limited to, NCREIF PREA Reporting Standards, Institutional Limited Partners Association ("ILPA"), Urban Land Institute ("ULI") Greenprint, Global Reporting Initiative ("GRI"), Task Force on Climate-Related Financial Disclosures ("TCFD"), Global Real Estate Sustainability Benchmark ("GRESB"), Sustainability Accounting Standards Board ("SASB"), United Nations Sustainability Development Goals ("UN SDGs"), United Nations Principles for Responsible Investment ("UN-PRI"), the PREA Foundation, the Robert Toigo Foundation, Sponsors for Educational Opportunity ("SEO"), CFA Institute's ESG and DEI initiatives, etc.
11. ***As applicable, Firm ESG Innovation/Thought Leadership***: Describe the firm's implementation and/or involvement in innovative ESG practices and/or thought leadership, case studies or similar publications to provide information to the wider industry.

SECTION 2: VEHICLE ESG OVERVIEW CONSIDERATIONS

Section 2 includes topics that could be included directly within, or supplemental to, vehicle formation documents. It is envisioned that information within this section should be prepared upon vehicle formation and updated upon material changes within periodic reporting to investors.

Vehicle ESG Overview

12. **Boundaries/Disclosures:** Describe any report boundaries or provide disclosures that identify any nuances associated with the information collected herein.
    a. For example, ESG program exemptions or restrictions: Are certain properties in a vehicle not included in the ESG program or only participate in certain elements of the program? Explain why these assets are not included.
    b. For example, insights into performance data: Is the vehicle sharing common area or whole building data (or a mix), is data normalized (occupancy/weather/etc.), is any data estimated, is any data missing?
13. **Vehicle Information**: Describe the vehicle's overall strategy and objectives. Include the composition of the Investment Committee or investment decision makers.
14. **Vehicle ESG Goals and Targets**: Describe the overall approach to setting the ESG strategy for the vehicle. If any, describe specific, measurable, time-based targets of ESG KPIs and specify ESG commitments (e.g., carbon neutrality) and objectives. Indicate how progress is measured to these commitments and how results are communicated to investors. Additionally, describe any financial objectives with the implementation of ESG strategies.
15. **ESG Responsibility**: Describe how ESG is integrated into the vehicle such as through expanded responsibilities of existing staff, dedicated ESG staff(s) and/or external ESG consultants.
16. **Joint Venture, Third-Party Management and Responsible Contractor Strategy/Policy**: Describe the alignment of ESG goals, (including DEI), between joint ventures and third-party property management companies, if applicable (i.e., ESG-specific requirements for partners, vendors, or contractors).
    a. Describe how partners and service providers address and manage ESG risks and opportunities.
    b. Explain how diversity is considered when hiring joint venture partners, vendors, contractors, or other third-party service providers (e.g., property management, investment banking, leasing, brokerage, accounting, etc.).
17. **Vehicle Compliance**: Detail the vehicle's approach for ensuring compliance for current and future legislation relating to ESG issues (Securities and Exchange Commission ("SEC") / Sustainable Finance Disclosure Regulation ("SFDR"), etc.,). Indicate how the firm has integrated ESG into fund formation contracts, Limited Partnership Agreements or in side letters.
18. **Vehicle Reporting**: Explain how ESG results and case studies are communicated to investors on an ongoing basis (GRESB, Internal ESG evaluation, Annual ESG report, quarterly updates, etc.).

SECTION 3: VEHICLE ESG STRATEGY AND OBJECTIVES

Section 3 includes topics that could be included directly within, or supplemental to, vehicle formation documents and/or included within annual investor reports, as applicable. It is envisioned that information within this section should be provided upon vehicle formation and updated upon material changes on an as needed basis, or annually, as applicable.

Vehicle ESG Objectives

19. **Acquisitions/Due Diligence**: Indicate how and what ESG-related risks, opportunities, and financial impacts are assessed prior to acquisition and if ESG is included in Investment Commitment memos. Please identify who (i.e., internal teams or external resources) are responsible for this task.
    a. With regards to environmental and climate change issues, describe the asset level due diligence required to evaluate environmental/climate risks and opportunities. Describe the process to focus on physical and transition risks and opportunities caused by environmental/climate change concern and assess the financial risks.
    b. With regards to social considerations, describe the asset level due diligence required to evaluate social risks and opportunities (i.e., supply chain, tenant engagement, and affordability).
20. **New Construction/Development**: Describe the integration of ESG policy/principles into new construction and major renovations planning. Also identify who (what internal teams or external resources) are involved in for this integration.
    a. If applicable, specify any qualitative/quantitative targets for new construction aligned with green building standards and/or certifications, minimum energy efficiency requirements, etc.
21. **Asset Management**: Describe how ESG is integrated into asset management. Include if ESG aspects are part of asset level (or group of assets) business plans. Describe whether minimum standard metrics are set across the portfolio and if ESG-related targets and metrics are set. Indicate if and what ESG key performance indicators ("KPIs") are regularly collected and analyzed. Also identify who (what internal teams or external resources) are responsible for this task.
    a. For example, ESG Annual Property Action Plans (Business Plans): Overview of ESG action plans including the percentage of assets with an individual ESG action plan, describe the scope of these action plans, and detail the communication and information flow with asset management.
22. **Data Collection:** Identify any portfolio or asset level tracking systems, including data management tools used, internal protocols, and/or online platforms. Identify who (internal teams and/or external resources) is responsible for managing data collection. Describe quality control procedures and/or data assurance procedures employed to ensure the accuracy of the data collected.
23. **Ratings/Certification Goals**: Identify any green building rating/certification goals (LEED, IREM, Fitwel, WELL, ENERGY STAR, etc.). Describe your specific measures or metrics of success.

24. **Exit ESG Metrics**: Identify how ESG impacts hold/sell analyses and how often those analyses are conducted. Indicate if investments are positioned for disposition using ESG KPI metrics and what metrics are communicated. Also identify who (which internal teams and/or external resources) are responsible for this task.

25. ***As applicable, detail any additional key material aspects*** *for the ESG strategy for the vehicle. Some examples of possible considerations include, but are not limited to:*

a. **ESG Property Guidelines and Policies (Governance)**: Indicate what ESG guidelines or policies are in place at the properties within the fund.

b. **Environmental Impact (Environmental)**: Indicate active management approach to measure and reduce environmental impact (energy, GhG emissions, and water and waste) and/or climate risk (Physical, Transition, Stranding, etc.) throughout hold period. Explain the cost and, if available, the return on investment, of implementing such measures.

c. **Tenant Engagement (Social)**: Indicate stakeholder activities such as tenant liaison and satisfaction measurement strategy, as well as green leases. Explain if/how tenant engagement is used to improve energy efficiency.

d. **Health & Well-Being (Social)**: Describe material strategies to integrate health and well-being at the assets and how success is measured.

e. **Supply Chain (ESG)**: Describe guidelines/policies related to supply chain. Examples include any of the following: responsible contractor policies, contractor codes of conduct, green cleaning, DEI efforts, building materials, human rights issues & scope 3 emissions/embodied carbon tracking, etc. Describe how compliance is monitored.

f. **Community Engagement (Social)**: Describe community engagement and social impact strategy; policies/strategies/guidelines for how assets connect to the community and how they are intended to benefit the community.

g. ***As applicable, Affordability (Social)***: Describe activities, strategies, and/or guidelines for Affordable Housing.

SECTION 4: VEHICLE ESG PERFORMANCE

Section 4 includes topics that could be included within annual investor reports. It is envisioned that information within this section should be updated annually, as applicable.

Vehicle ESG Performance

26. **ESG Vehicle Results**: Report against ESG objectives and associated targets set for the vehicle which were described in the previous section. What was the vehicle's ESG performance? How did the vehicle perform relative to goals and targets? How might processes or procedures be adjusted to ensure successful achievement of goals and targets? Include explanation on why certain target(s) have not yet been met and expected timeline to achieve them. Provide performance of any ESG transparency scores obtained (i.e., GRESB, UN-PRI, etc.) and explain how performance has changed over time.

Total Global Expense Ratio: a globally comparable measure of fees and costs for real estate investment vehicles

November 2019



ANREV

INREV

RS NCREIF PREA Reporting Standards

INREV is the European Association for Investors in Non-listed Real Estate Vehicles
www.inrev.org

ANREV is the Asian association for Investors in Non-listed Real Estate Vehicles.
www.anrev.org

NCREIF is National Council of Real Estate Investment Fiduciaries in the US.
ww.ncreif.org

PREA is the Pension Real Estate Association in the US.
www.prea.org

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Executive summary

The objective of the Total Global Expense Ratio (TGER) is to facilitate comparison of fees and costs between real estate investment vehicles that operate across different regions of the globe.

The new standard also bridges gaps in terminology and definitions for the most widely used categories of vehicle fees and costs that may be charged (directly and indirectly) by investment managers and service providers.

When analyzed in the context of vehicle style, investment strategy and underlying risks, TGER will help those involved in the non-listed real estate market – both institutional investors and investment managers – to compare fee and cost structures between different non-listed vehicles and investment structures. Comparisons between TGERs may also provide an additional mechanism for cost analysis, as the fees and costs of multiple vehicles can be easily measured against industry averages thus driving more informed investment decisions.

TGER aims to improve consistency in the presentation and categorization of fees and costs when comparing vehicles from different domiciles. While it may not be possible to achieve complete consistency in breaking down expenses, the aim is to provide the greatest possible comparability while also maximising the availability of relevant information with respect to fees and expenses. TGER has been designed to be straightforward, easy to understand and compatible with the vehicle's normal reporting cycle.

TGER focuses on the substance of the fees and costs over the form they take resulting in a comparable measure.

TGER was therefore developed to reflect the nature of the expenses, in line with the various types of services for which investment managers charge fees, and the basis on which they charge them.

The principles and guidelines for reporting TGER are listed below. Where appropriate, further explanation is provided to enhance the reader's understanding. In addition, the Appendix section includes definitions of fees and costs.

Background and introduction

Cross-border capital flows

More capital is crossing borders than ever before as real estate is offering an attractive alternative investment across the globe. For example, Asian investors are buying into US real estate funds and US investors are investing into European funds. This raises challenges for investors seeking to monitor the performance of the capital deployed in international markets.

There are many different ways in which fees and costs associated with participation in a vehicle are categorized, classified, defined, accounted, and described, making comparisons across products and borders particularly challenging. Examples include:

- Categorization: For example, what types of services are generally included or considered in addition to the fund management fee.

- Definition: For example, whether an asset management fee is the same as a fund management fee.

- Recognition in financial statements: For example, different accounting standards across the globe prescribe different criteria and methods by which expenses are recognized.

- Description: For example, whether one investment manager includes a service in their vehicle structure while another charges it separately to the fund as a third-party cost or an allocated cost.

For all these scenarios, it is critical to clarify what the impact is on the fees and costs incurred at the vehicle level and how these charges are being disclosed and explained to investors so that they can consistently compare fund costs across vehicles.

Differences between open-end vehicles and closed-end vehicles can also impact fee and cost levels. Some expenses will be more relevant to open-end structures than to closed-end structures due to the finite life and characteristics, of the latter group. For example, a closed-end fund will incur a higher level of transaction-related fees and costs in the investment period than an open- end structure where capital can be deployed through its perpetual life.

Further challenges exist when developing a global comparable measure of the vehicle burden (or load). For example, multi-country vehicles have different types of expenses compared to single-country vehicles.

Therefore, owning an asset or the entity holding the asset will trigger more statutory obligations and administrative costs in some jurisdictions as compared to others.

In this context, additional information on vehicle fees and costs across the globe is of particular interest to investors who are comparing performance across their investment portfolios.

These challenges were one of the catalysts for the collaboration begun in 2015 between ANREV, INREV, NCREIF and PREA: to bring convergence in reporting standards globally.

Process, implementation and effective date

This paper reflects feedback received from the market participants across the globe during a consultation process that ran from March 2018 to July 2018. The discussion was based on the TGER consultation paper jointly released by INREV, NCREIF, PREA and ANREV in March 2018.

Over 40 companies provided a detailed response on the appropriateness and usability of TGER as the first proposed global measure of vehicle fees and costs and its related disclosures. The responses showed positive support for TGER, including unanimous buy-

in from industry participants for appropriate categorization and disclosure of fees and costs.

Under the direction of the global Standards Steering Committee (SSC)[1], which sets priorities for the global standards collaboration, a Fee and Expense Metrics ("FEM") task force was formed to develop TGER.

A multi-phase approach with milestones was established by the FEM task force. The first phase was conducted in 2016 and brought into the industry globally consistent categories (and associated definitions) of fees and costs. The global definitions can be accessed via the Global Definitions Database. In 2017, work began on the development of the TGER metric as part of the next phase.

Following the positive consultation carried out in 2018, TGER is planned to be incorporated as a required element in the INREV Guidelines and the NCREIF PREA Reporting Standards. TGER will apply to both open-end and closed-end vehicles. The effective date for reporting this new element is for calendar year 1 January 2021. For NCREIF PREA Reporting Standards purposes, TGER is required for closed-end funds that were formed (i,e legal fund formation) in 2020 and beyond (e.g., when Net Asset Value (NAV) is first reported to investors).

[1] The Global Standards Steering Committee (SSC) was established in 2015 by INREV, NCREIF, PREA, (collectively, the Sponsorship) and by acknowledgement, ANREV (as licensee of the INREV Guidelines) to prioritise and direct the Global Standards initiative. See appendix for project governance.

Principles

Two key principles are generally driving investor requirements for best practices around disclosure of fees and calculation of expense metrics.

These principles should ultimately lead to disclosure of information that is clear, fair and presented in a way that is not misleading to investors.

1. Comparability:
Fees and costs should be consistently categorized, defined and presented, to enable investors and managers to compare vehicle performance.

2. Transparency:
There should be clear and appropriate disclosure of all the fees and costs charged to the vehicle. Investment managers should also explain the calculation methodology and assumptions used. Communication of all relevant information should be open, accessible and easy to understand.

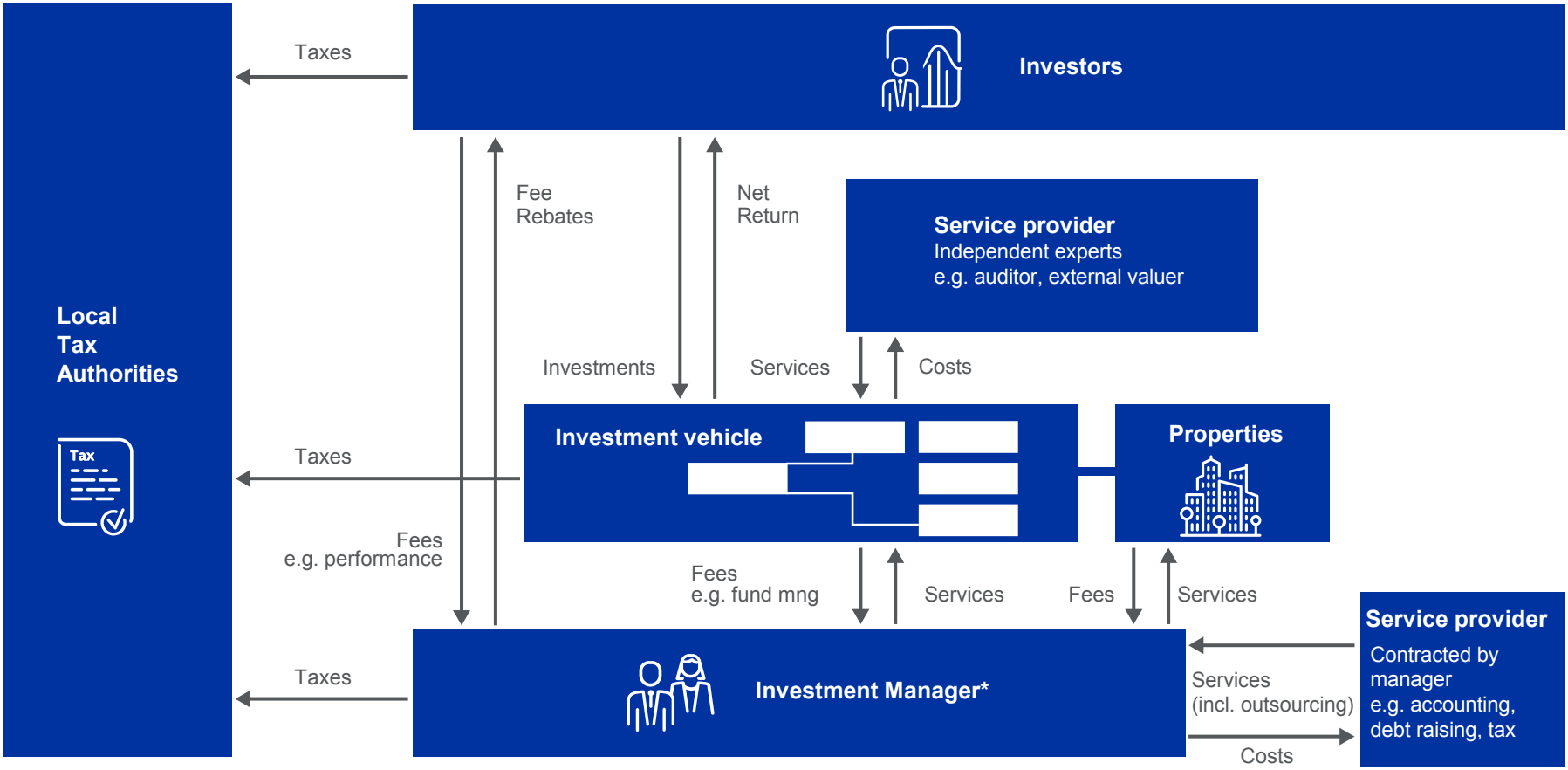
Calculation of TGER

This section of the consultation paper covers:

> Flow and charging of services to the vehicle and its investors

Fees and costs categorization

The picture below provides an example of the different stakeholders and the flow of services charged to the vehicle and its investors. Costs describe third party charges and fees describe manager charges.



* In case of public structures / public market vehicles management fee mechanics might be covered by staff cost

TGER calculation and requirements

Fees and costs incurred by the vehicle are distinguished as follows:

Term	Charged by	Description
Vehicle Fees	Investment Manager	Charges in relation to fund management, transactions and oversight* services
Vehicle Costs	External Service Provider or Investment Manager	Charges in relation to all other services

Fees charged by the manager directly to their investors for services rendered to the vehicle are included in TGER except for investor-specific services.

Where a single fee is charged to cover a variety of activities, the constituent elements will need to be identified, allocated to their appropriate category and disclosed appropriately.

These fees and costs should be applied against Gross Asset Value (GAV) as defined herein, thereby removing the effect of leverage and providing a comparison between investment vehicles with different capital structures. Depending on the investor need, TGER may also be calculated against the Net Asset Value (NAV).

A historic TGER based on the time-weighted average GAV (required) or NAV (recommended) of the vehicle over twelve months, should be provided annually. If considered meaningful, TGER can also be calculated quarterly (on an annualised basis), since inception (recommended for closed-end vehicles), or on rolling multiple period averages. The approach should be consistent with the fee and cost allocation and computation methodology described herein.

TGER should be calculated before tax to avoid a potential lack of consistency due to differences in corporate structuring and treatment of tax.

These elements were carefully considered by the global task force and work on how best to reflect tax cost categories resulted in a proposed after- tax concept – see formula below. TGER after tax is an optional concept designed to reflect the cost associated with tax structures and taxable income.

Also, optionally, at the vehicle launch stage, an estimated TGER for the first year when the vehicle is expected to be stabilized, can be provided in the vehicle documentation. This measure should be calculated following the same methodology as for a historic TGER, although it will be based on estimates.

* Charges by a manager in addition to a similar cost charged by a third party are deemed fund oversight and therefore fall under vehicle fees.

TGER calculation and requirements

The formulae for TGER are as follows:

Required ratio

$$\text{TGER} = \frac{\text{Vehicle fees + Vehicle costs}}{\text{Time weighted Average Gross Asset Value}}$$

Recommended ratio

$$\text{NAV TGER} = \frac{\text{Vehicle fees + Vehicle costs}}{\text{Time weighted Average Net Asset Value}}$$

TGER components

A description of the main fees and costs categories included in the TGER is presented below:

Ongoing Management Fees	Fund and asset management fees charged by investment managers for their services regarding the everyday running of the vehicle and its portfolio.	**Fees charged by the Investment Manager**
Transaction based Fees	Fees charged by investment managers for their services regarding the acquisition/disposition of real estate.	
Performance Fees	Fees charged by investment managers after a predetermined investment performance has been attained.	
Vehicle Costs	Third party costs incurred predominantly at vehicle level to maintain and grow its operations.	**Costs charged by third parties**
Vehicle related Taxes*	Expenses related to the tax structure and position of the vehicle.	
Gross Asset Value	Total assets derived from the vehicle accounting standards, e.g. US GAAP, IFRS, and adjusted for specific elements to arrive at a market-relevant gross asset value in accordance with INREV Guidelines / NCREIF PREA Reporting Standards.	**Ratio denominator**

* Optional category only applicable in case of an after- tax ratio calculation.

The components of the numerator include the vehicle fees and costs for the reporting period, as defined herein.

Only those fees and costs that are attributed to the vehicle during the period should be considered in the calculation of TGER (see appendix for detailed fee and cost matrix).

This comprises the fees charged by the investment manager for oversight activities rather than property/financing-specific activities.

If the manager charges a single fee covering both property and vehicle management activities, it should be split into its constituent elements.

The transaction-based fees and the denominator should be calculated in accordance with the INREV GAV and INREV NAV guidelines and for the US – the GAV and NAV described by NCREIF PREA Reporting Standards. Daily weighting of cash flows is recommended. If not feasible, at a minimum quarterly amounts should be used to calculate the time-weighted average GAV and NAV.

Treatment and allocation of components of TGER

The fees and costs included in TGER are all components of the investment vehicle load. In order to develop a global measure of load, one must understand not only the nature of the fees and costs but also the treatment of such fees and costs within the accounting records which vary around the world.

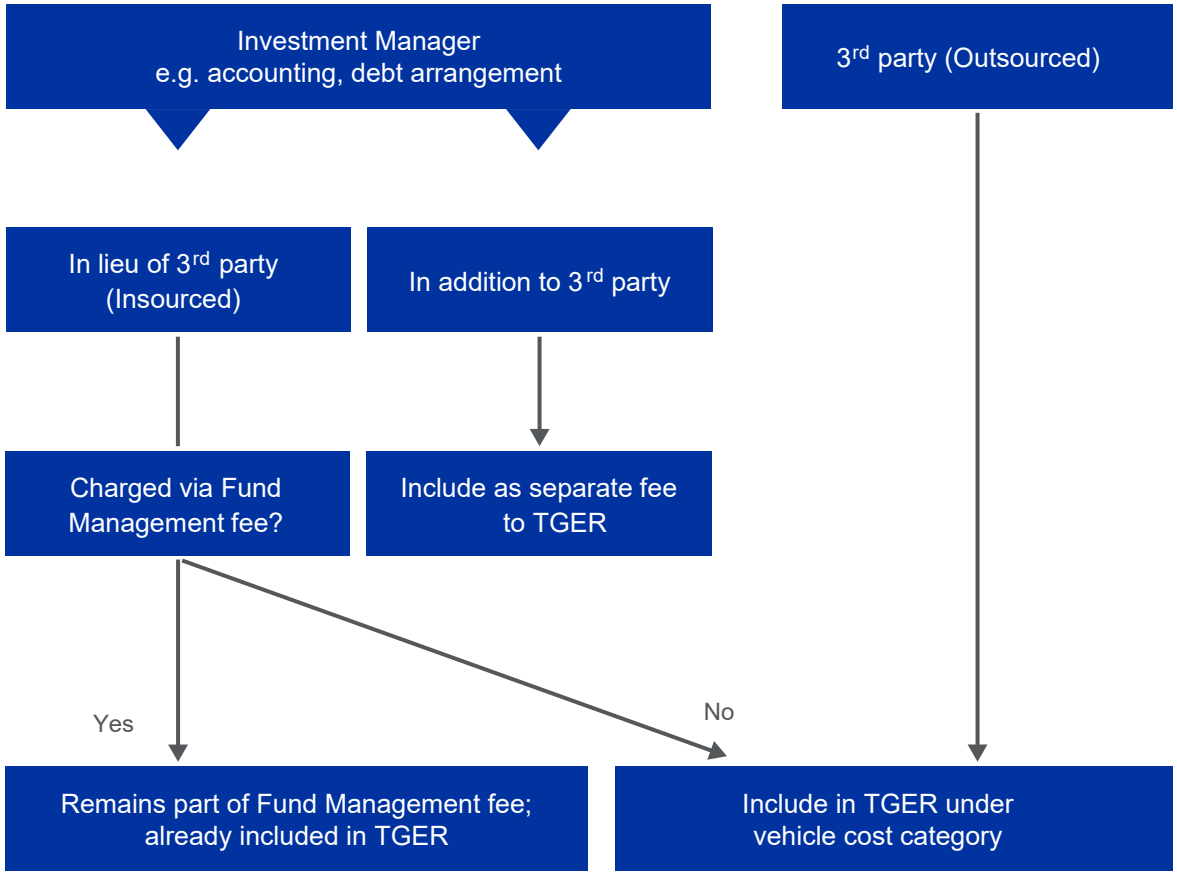
Nature of services

Fees and costs included in TGER are categorized according to the respective nature of the underlying services. This approach ensures consistent classification of services irrespective of the service provider or where the fees and costs are recorded.

To the extent that the fee is charged for a service provided by the manager in lieu of a service provided by a third party, and is charged in addition to the Fund Management Fee, or is otherwise disclosed separately from the Fund Management Fee, it should be classified according to the nature of the service rather than whether the service is provided by the investment manager or a third party.

Example:

The fund documents of Fund ABC permit the manager to charge an accounting fee if the accounting for the fund is performed in-house (in lieu of appointing a third party accounting firm). A separate accounting fee is stipulated in the fund documents. A supporting piece of research is used to determine that the fee charged to the vehicle is at market rate (or lower than market). This fee is therefore categorized as an accounting fee and included in TGER under Vehicle cost category.

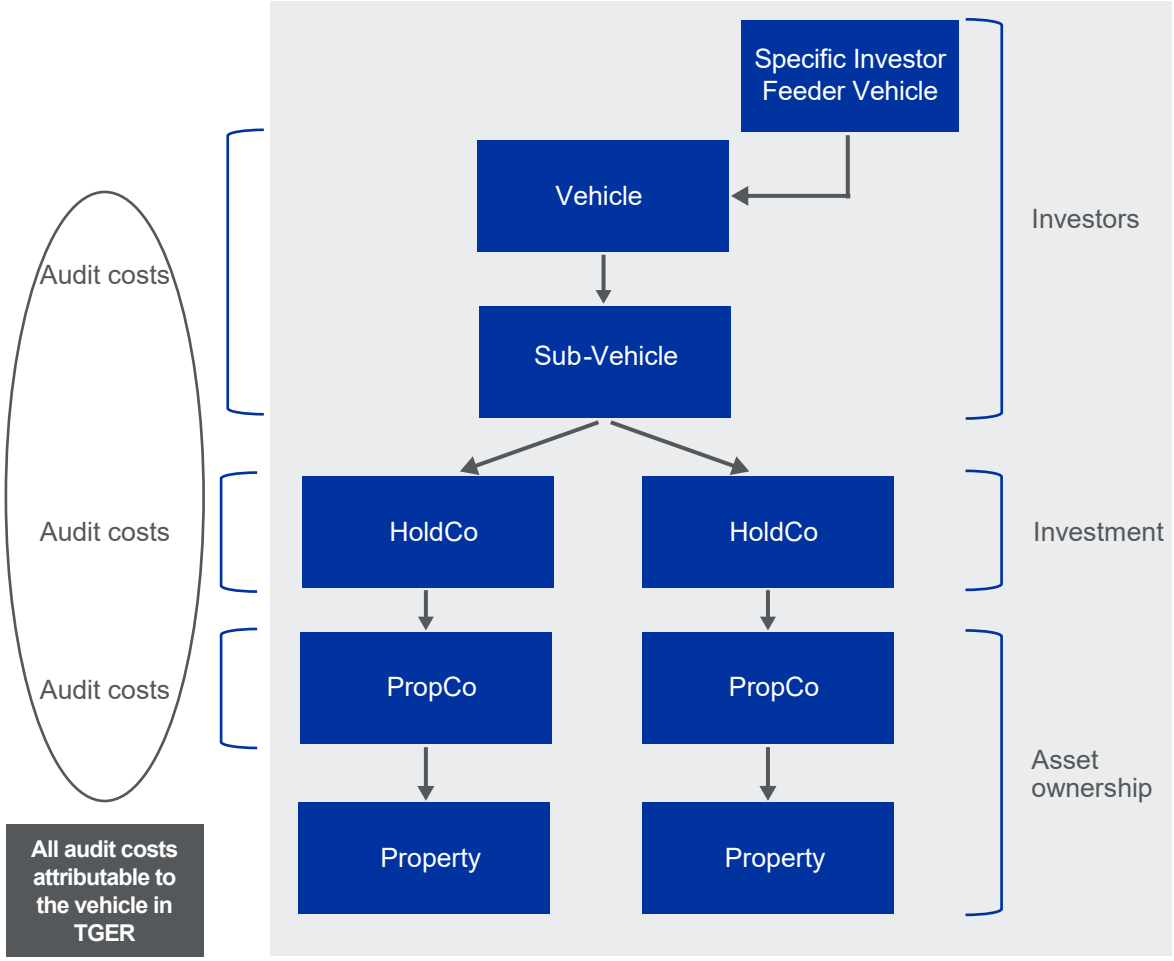


Accounting principles

All expenses are assessed based on the nature of the service no matter where the investment manager determines where that expense sits in the investment structure of the vehicle. Any additional fees and costs charged at specific investor feeder level, including cash, hedge fees and other professional services costs are excluded from TGER. This is because not all investors in a fund participate in all feeder vehicles the fund may establish. Fees and costs can vary significantly depending on what may be required to establish a particular feeder vehicle (established to allow certain investors to invest in a fund). Combining such costs for the fund would be misleading.

Costs incurred by Special Purpose Vehicles ("SPVs"), which sit in the holding structure are included in TGER. Costs of this nature that are charged to the acquisition vehicle must also be included in this category. TGER "looks through" or neutralizes the differences by capturing all these expenses. This approach ensures a consistent allocation, independent of investment hierarchy.

In some cases, the cost of redesigning systems to perform the look through outweigh the benefits, since this detailed level of information is not consistently provided for within existing documentation. In these situations, TGER provides for the use of the practical expedient to not require a look through to identify such costs generated at the SPV level provided (1) the investment manager's systems do not track such information and/or (2) the investment manager does not have access rights to receive such information. If the information is available and fund managers have access rights to be able to perform such look through, the practical expedient cannot be applied.



An example of the application of the look through provision follows. It is important to note that in all cases where the practical expedient is not utilized, the look through provisions should be applied.

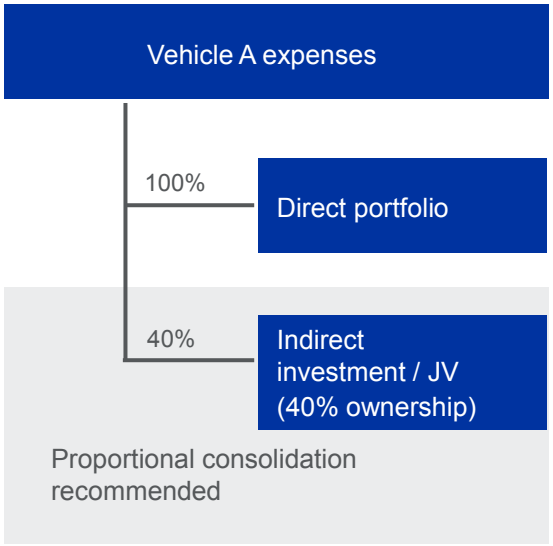
In all cases, the approach taken by the investment manager should be disclosed in a disclosure note as part of their investor reporting.

Example:
In some cases, audit costs relating to the annual audit of the vehicle are allocated to each investment by the investment manager; in other cases, a manager may not allocate these costs to the investment. TGER looks at the nature of the cost rather than where the cost is recorded on the books and reflects the costs of the annual audit in relation to the vehicle accordingly.

Proportional consolidation

Proportional consolidation is recommended to fairly account for expenses incurred with respect to investments which are not wholly owned irrespective of accounting methodology. If sufficient information is not readily available, or the expense(s) is deemed to be immaterial, managers can apply discretion to provide a best estimate of the share of their investment expenses.

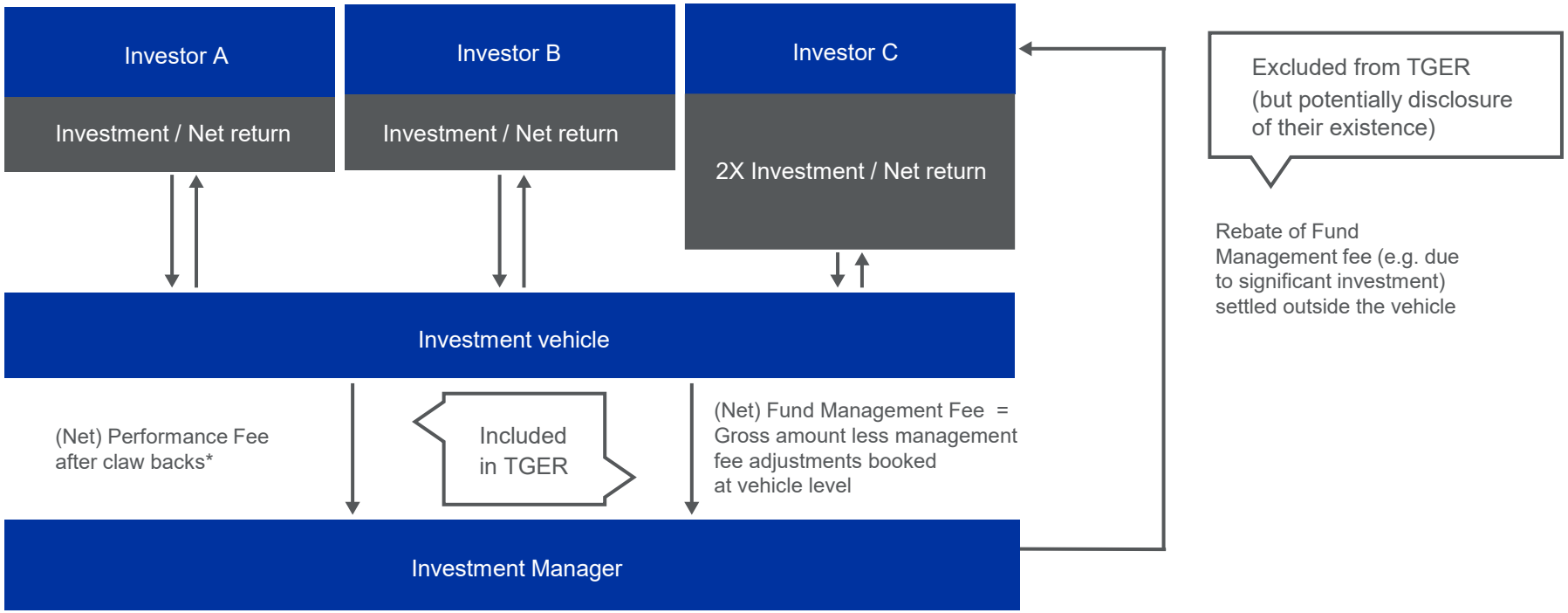
When proportional consolidation is utilized it must be applied to the numerator and the denominator.



Management fee adjustments

Management fee adjustments, including Fee Reductions, Fee Waivers, and Transaction Offsets, recognized in the financial statements of the vehicle, should be disclosed as part of the ongoing investor reporting, and included in TGER.

Existence of Fee Rebates should be disclosed if permitted under the provisions of the fund documents.



* In some cases performance fee is earned by affiliate.

Disclosure

Fees earned by the manager, or by any other affiliate or related party of the manager, for activities and services rendered to the vehicle, are generally disclosed as part of the related party disclosure notes under GAAP. In the appendix additional notes to disclosure are presented to help users understand all fees earned by the manager regardless of whether these fees are in addition to, or in lieu of third-party services.

Where a manager charges a vehicle cost, the manager should perform a benchmark analysis to ensure the amount being charged is in line with market rates.

Total Global Expense Ratio	%GAV (required)	%NAV (recommended)
Note A		

A. Includes vehicle fees and costs, and any performance fees which have either been paid, charged, or disclosed as a potential liability, in accordance with INREV Guidelines / NCREIF PREA Reporting Standards.

Appendices

I. Notes to disclosure

The following notes clarify the components of the expense ratio and should also be read in conjunction with the classifications shown in the Fee and Cost Matrix schedule.

Constituent elements	Current Year/Period (Amount & Currency)	Prior Year/ Period (Amount & Currency)
Ongoing management fees		
Transaction-based management fees		
Performance fees		
Vehicle costs		
Time weighted average GAV (required)		
Time weighted average NAV (recommended)		
Commitment fees		
Redemption fee		
Transaction offsets		

Fees earned by the investment manager	Current Year / Period (Amount & Currency)	Prior Year / Period (Amount & Currency)
Asset management fees		
Fund management fees		
Performance fees		
Wind-up fees		
Debt arrangement fees		
Commitment fees		
Subscription fees		
Redemption fees		
Property acquisition fees		
Property disposition fees		
Project management fees		
Fees earned by the manager incl. in TGER		

II. Optional TGER calculations

Optionally, TGER after tax can be calculated as follows:

$$\text{TGER after tax} = \frac{\text{Vehicle fees + Vehicle costs + Vehicle taxes}}{\text{Time weighted Average Gross Asset Value}}$$

$$\text{NAV TGER after tax} = \frac{\text{Vehicle fees + Vehicle costs + Vehicle taxes}}{\text{Time weighted Average Net Asset Value}}$$

III. FAQ

1) **How do you determine if a service is in lieu of or in addition to third party costs?**
Generally, when a function and its related services is frequently outsourced to third parties and the vehicle designates the investment manager to perform this function internally, then the services provided by the investment manager are deemed to be in lieu of third party services. Conversely, when there is already a charge from a third party for services related to a specific function, and due to task complexity, the investment manager provides oversight or performs other complementary services for the benefit of the vehicle, then these services provided by the investment manager are deemed to be in addition to third party services.

2) **Is TGER replacing TER and REFER?**
TGER represents the next generation of INREV TER and RS REFER by combining the best features of these regional metrics to better answer investor needs across geographies. TGER will be reflected in the INREV Guidelines and NCREIF PREA Reporting Standards. For those already reporting TER and/or REFER, the transition to TGER must be completed by the effective date.

3) **Does TGER include property level costs?**
TGER reflects the fees and costs incurred at the vehicle level. It excludes property level expenses. To measure the fees and costs directly attributable to the management and the maintenance of properties, INREV REER may be used.

4) **Do I need to convert previously reported TERs and REFERs?**
Not necessarily. The numerator of TGER bears much similarity to the INREV TER and RS REFER. It is important to note that REFER was calculated using an NAV based denominator only so comparisons to a GAV based ratio like TGER would likely be misleading. In addition, it is important to note that historical comparisons depend on the life cycle and activity of the vehicle and should be treated with caution.

5) **Should TGER be compared against expense metrics of listed structures / public market vehicles?**
TGER was designed to consider all relevant elements of a non-listed real estate vehicle load – including both fees and costs. Care should be taken to ensure an “apples to apples” comparison of similar measures disclosed for public markets / listed real estate investments.

6) **Should an estimated TGER be calculated for newly launched vehicles?**
An estimated TGER is not required. In case the investment manager decides to provide potential investors with an estimate of the vehicle’s load, TGER methodology for the first year when the vehicle is expected to be stabilized is recommended and should include a clear disclaimer / note that these are based on estimates.

IV. Detailed Fee and Cost Matrix

This matrix is intended to help users when allocating fees and costs to TGER. It is not meant to be an exhaustive description of all the possible fees and costs that could be incurred by a real estate investment vehicle. Please refer to definitions for details.

Included in TGER	
Vehicle-related fees charged by manager	**Vehicle-related costs charged by third parties**
Ongoing management fees	Audit costs
Fund management fee/asset management fees	Bank charges
Fee reductions/transaction offsets	Custodian costs
Fee waivers	Debt arrangement costs
Distribution fees	Other/misc. vehicle costs
Commitment fees	Placement agent costs
Redemption fee	Professional services costs
Transaction offsets	Securities handling charges
Transaction-based management fees	Staff costs (if applicable)
Wind-up fee	Vehicle administration costs
Debt arrangement (financing) fees	Vehicle formation costs
Subscription fee	Transfer agent costs
Project management fee	Dead deal costs
Property acquisition fee	
Property disposition fee	
Other manager services not related to fund management (in addition to third party service/cost)	**Other manager services not related to fund management (in lieu of third party service/cost)**
Performance fees	
Incentives and promotes	
Carried interest	
Other performance fees	

Excluded from TGER	
Property-related fees charged by manager	**Property-related costs charged by third parties**
Internal leasing commissions	CAPEX/ tenant improvements
Property management fee	External leasing commissions
Development fee	Property acquisition costs
	Property disposition costs
	Property insurance costs
	Property management costs
	Utilities, repair and maintenance costs
	Property-related taxes
	Property taxes on the owner
	Wealth taxes on real estate
Fee rebates	**Vehicle taxes***
	Corporation tax
	Income tax
	Non-resident landlord tax
	Other taxes based on gross profit
	Net wealth tax
	Deferred taxes**
	VAT or other sales tax (only non recoverable portion)
	Withholding tax
	Capital gain taxes
	(Transfer) taxes on real estate transactions

* Optional category only applicable in case of an afte-r tax ratio calculation.

** In accordance with the INREV GAV and INREV NAV guidelines and for the US – the GAV and NAV described by NCREIF PREA Reporting Standards.

V. Definitions

Access all fee and cost definitions via the Global Definitions Database. A list of these definitions is also presented below.

Asset management fee
Fee typically charged by investment advisors, or managers, for their services regarding the management of the vehicle's assets. Asset management fees generally cover services such as:

- strategic input and production of asset level business plans;
- management of assets including refurbishment;
- appointment of third party service providers at asset level;
- reporting activities at asset level.

Occasionally, asset management fee and fund management fee are combined.

Audit costs
Costs associated with annual external audit engagements and other audit services provided by independent third party firms.

Bank charges
Costs charged by a financial institution to manage and maintain the cash accounts of the vehicle, or in relation to overdrawing an account.

Capital expenditures
Costs related to capital improvements for an asset that lengthen its life and increase its value. This is in addition to any maintenance operating expenses.

Carried interest
A re-allocation of profits from the investor's capital account to the investment manager capital account based on the ability of

the latter party to outperform a certain predetermined benchmark. Carried interest is structured as a re-allocation of equity within the capital accounts rather than a straight charge to the investment manager generally due to tax purposes.

Claw backs
A reduction to previous received or allocated performance fees or carried interest due to investment performance falling below predetermined benchmarks.

Commitment fees
A commitment fee is a charge to investors on undrawn committed capital for the duration of the commitment period. This is seen to be part of the fund management fee.

Custodian costs
Also known as depository costs, these are charged by a fiduciary entity entrusted with holding and safeguarding securities or assets, deposit transactions and keeping records for institutional clients.

Dead deal costs
Costs usually charged by third parties concerning work undertaken for acquisition/ disposition projects which do not ultimately close. Such costs cannot be capitalized, and thus must be expensed.

Debt arrangement costs
Debt arrangement costs paid to a lender, broker, or other third party, in connection with obtaining debt financing for asset purchase or financing at the vehicle or other special purpose entity level of the holding structure.

Debt arrangement fee
Also known as financing fee, this represents a fee charged by the investment manager for services rendered in arranging debt financing for asset purchases or financing at the vehicle or other special purpose entity level of the holding structure. This fee is separate from any arrangement costs paid to the debt provider or external party such as a broker.

Deferred taxes
Tax on taxable/deductible temporary differences between the tax value and the book value of assets/liabilities of the vehicle. The main source of deferred taxes are the tax on capital gains payable at the time a property is sold.

Development fee
A fee charged to the vehicle by the investment manager for the construction process of a development project. These costs may be expensed or capitalised at the property level.

Distribution fee
Fees charged in conjunction with operating or return of capital cash distributions to investors.

External leasing commissions
Commissions charged by the listing agent/ broker and tenant representative after a new lease or a renewal lease is signed.
These include marketing of vacant space. Commission ranges vary and may depend on the market and/or the value of the transaction.

Fee reductions/rebates
A fee reduction occurs when an investor is charged a management fee lower than the one specified in the vehicle terms (e.g. in the PPM or LPA). However, if the investor is charged the same management fee as the one specified in the fund terms, but once that fee is received by the management company, the investor receives a portion of its fee back as a rebate, this is considered a Fee Rebate.

Fee waivers
Fee waivers represent a portion of the management fee that is waived and can be used by the investment manager to satisfy a capital call. The waived management fee process and potential distribution of the amount waived to be used in a capital call are generally detailed in the vehicle documentation. The amount waived and the amount used for the capital calls for the year are disclosed in financial statement footnotes.

Fund management fee
Also known as investment management or investment advisory fees, fund management fees are typically charged by investment managers for their services regarding the management of the vehicle. They generally cover services such as:

- developing, investigating and monitoring investments
- appointment and oversight of third party service providers
- cash management and dividend payment
- managing the vehicle level structure
- management of financing(excluding debt arrangement services)
- Oversight or performance of: fund administration, reporting activities to investors, investor relations

For closed- end funds, these fees may be paid out of an investor's commitment to the vehicle or in addition to the commitment.

Occasionally, asset management fee and fund management fee are combined.

Internal leasing commissions
Commissions charged by investment advisors, or managers, after a new lease or a renewal lease is signed. These include marketing of vacant space. Commission ranges vary and may depend on the market and/or the value of the transaction.

Other/misc. Vehicle costs
Vehicle level costs that are not assigned to other cost categories but are classified as a group. These may include other administration costs, statutory costs, etc.

Performance fee
Also known as incentive fees, promote or carried interest, are fees charged by investment advisors, or managers, after a predetermined investment performance has been attained.

Placement agent costs
Costs incurred when sponsors of real estate funds retain placement agents in connection with the sale of limited partnership interests in the fund. It is calculated based on investor commitments sourced by the placement agent multiplied by the placement fee rate. Placement costs are usually born by the vehicle; however it is possible that investors negotiate an offset against management fee of 100% of any placement agent cost paid by the vehicle.

Professional services costs
Costs charged at vehicle level in connection with third party services such as accounting,

secretarial, legal, tax and other advisory costs, which do not fall into other specific cost categories such as formation costs, valuation costs, etc.

Project management fee (excl. Development activities)
A fee charged to the vehicle by the investment manager for oversight of a significant renovation project or large maintenance works.

Project management costs
Costs charged by third parties for guiding the design, approval, and execution of a renovation project, as well as construction process of a development project. These costs may be expensed or capitalised at the property level.

Property acquisition costs
Direct costs related to a specific property acquisition (either share deal or asset deal) such as transfer tax, legal costs, due diligence or other closing costs. These exclude costs of running an acquisition program such as general and administrative costs, costs incurred in analysing proposals that are later rejected, joint-venture organisational costs and fees paid to the manager for execution of the deal.

Property acquisition fee
Fee charged by investment advisors, or managers, associated with the closing of a new investment. The fee compensates the real estate investment advisor, or manager, for services rendered in an investment acquisition, including sourcing, negotiating and closing the deal.

Property disposition costs
Also known as disposal costs, they represent the costs of selling an investment property.

Disposition costs are typically charged to the seller, and consist of legal fees, title fees and insurance, disposition fees, and broker commissions. Disposition costs include only direct costs related to a property-specific disposal and do not include costs of running a disposition program such as general and administrative costs, costs incurred in analysing proposals that are rejected, joint-venture organisation costs or fees paid to the manager for execution of the deal.

Property disposition fee
Fee typically charged by investment advisors, or managers, for services rendered in an investment disposition, including sales marketing, negotiating and closing of the deal.

Property insurance costs
Expenses related to insurance coverage which is often required by lenders to compensate a property owner and/or lender should the property be damaged by fire, windstorm or other peril.

Property management costs
Costs charged by third parties for the administration, technical and commercial management of real estate. A property management engagement typically involves the managing of property that is owned by another party or entity. This includes property advisory services.

Property management fee
Fee charged by investment advisors, or managers, for the administration, technical and commercial management of real estate. A property management engagement typically involves the managing of property that is owned by another party or entity. This includes property advisory services.

Property-related taxes
Taxes assessed against real property, usually by a country or municipal taxing authority but sometimes also by special purpose districts and agencies, in proportion to the assessed value of the property. Franchise taxes and excise taxes are already included in the NAV, and thus should be excluded.

Redemption fees
One-time fee paid to the manager when investors redeem from the fund, calculated as redemption amount, NAV or NAV per share, multiplied by redemption fee rate.

This fee is mostly seen in open-ended funds. If the amount is paid to the fund, then it is not included in TGER.

Securities handling charges Handling fees charged by third parties on certain real estate security transactions.

Staff costs
Costs incurred by the owner of an investment property for the staff required to manage

the property. Staff costs may be covered by the property management fees. Staff costs required to run the day-to-day management and operations of a property may include payroll for the property manager, assistant property manager, and property engineer.

It may happen that some vehicles have hired employees. Related staff costs should be allocated based on the activity of the employees.

Subscription fee
One-time fee paid to the manager when investors subscribe to the fund, calculated as investment amount, NAV or NAV per share multiplied by subscription fee rate. This fee is mostly seen in open-end funds. If the amount is paid to the vehicle, then it is not included in TGER.

Transaction offsets
Transaction offsets occur typically if income, based on investment and not for specific services (e.g. closing or monitoring fee), is earned by the investment manager or management company of the vehicle from the portfolio properties, and a portion of that income is required to be offset against the management fee by the vehicle documentation.

The history behind this adjustment is to increase alignment between the investment manager and the investors as these transaction fees became an increasing significant source of income. However due to tax considerations, the income could not be brought directly into the fund since ordinary income from fees could cause UBTI and ECI tax issues for investors. Therefore, the investment managers and the investors determined that the “benefit” of the income should accrue to the investors via a reduction in their management fees. However, if the fee earned by the general partner or management company is for specialized services and is not due to the investment, these may not be required to be offset (e.g. operational consulting). But, the management company should be able to demonstrate that the service is being provided at competitive levels of quality and price.

Transfer agent costs
Costs charged by trustees who are responsible for managing the assets owned by a trust for the trust’s beneficiaries. This is most relevant in a REIT structure where trustees act on behalf of all unit holders.

Utilities, repair and maintenance costs (non-rechargeable portion)
Shortfalls between the property operating expenses (incl. repairs and maintenance) incurred by the owner of an investment property and the expenses that are charged to the tenants.

Valuation costs
Costs in connection with the external (third party) appraisal of the real estate assets and liabilities owned by the vehicle. Appraisals may be performed routinely or ad-hoc, which can be triggered by certain provisions in the vehicle agreement.

Vehicle administration costs
Costs related to general administration (e.g. bookkeeping activities, corporate services) either paid to a third party service provider or the manager/advisor.

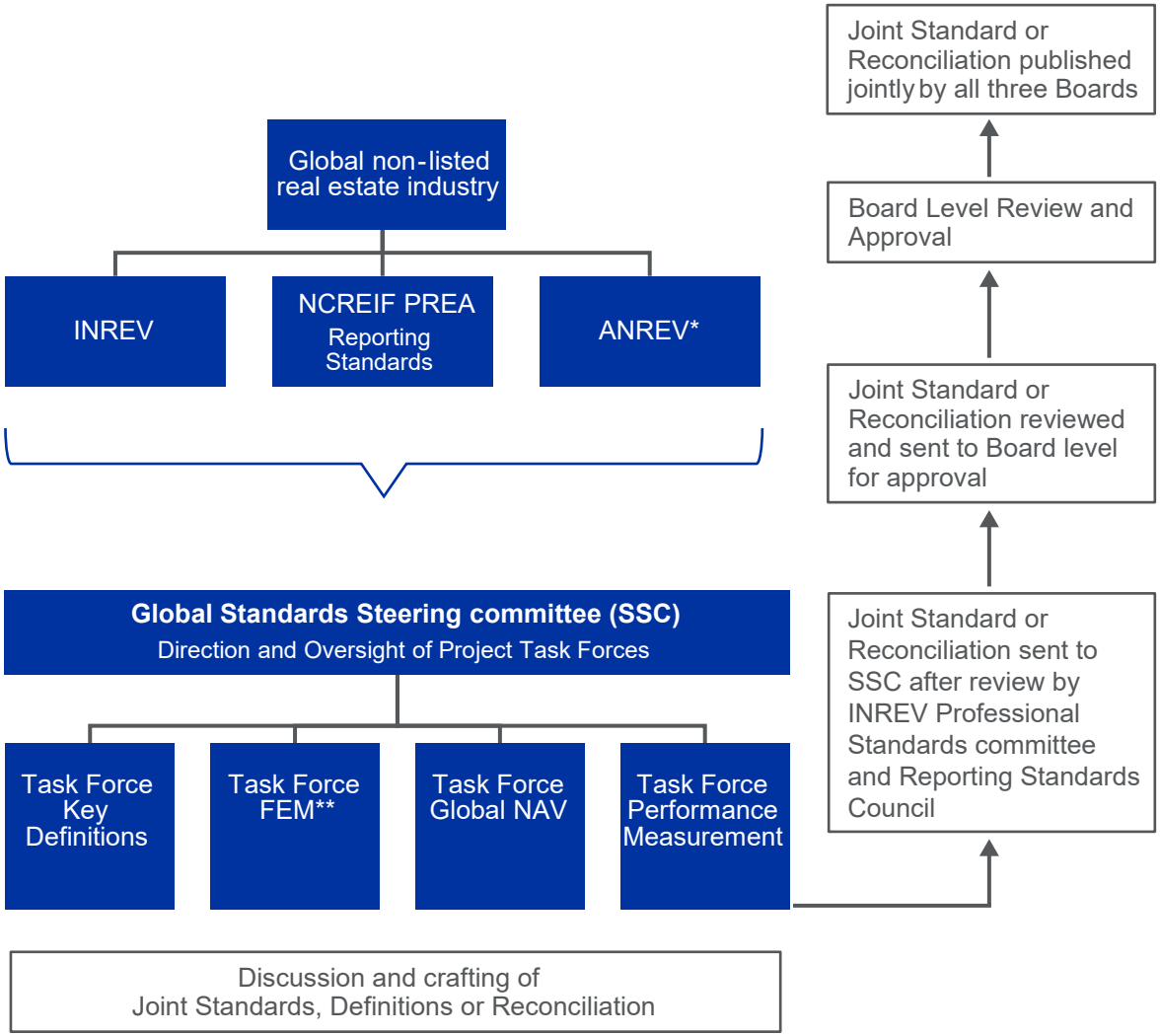
Vehicle formation costs
Also known as set-up costs, these charges are incurred at the launch of a vehicle, and do not relate to the portfolio acquisition and financing structure. These include

organisational costs (typically legal & notary services) as well as syndication costs, various marketing costs, including printing / publication, and initial subscription fees.

Wealth taxes
Represents a type of annual tax on “tax haven” indirect ownership of property.

Wind-up fee
Also known as liquidation fee, it is typically found in liquidating trusts, upon termination and dissolution of the vehicle. The sponsor is responsible for liquidating the partnership in an orderly manner.

VI. Project governance



* Review only by acknowledgement; no approval required

** Consists of 24 senior professionals from across US, Europe and Asia. A core team of four senior members was appointed to closely guide the project

HANDBOOK VOLUME II: RESEARCH



NCREIF PREA

Reporting Standards

Approved | August 2019

GROSS AND NET IRR

Adding transparency and comparability to closed-end fund performance and Investor Specific Reporting.

Findings and Recommendations from the Gross Net IRR Task Force.

NCREIF pension real estate association PREA

EXECUTIVE SUMMARY

A suggested approach to Internal Rate of Returns ("IRR" or "IRRs"), gross of fees and promote, net of fees and promote

IRR is perhaps the most widely accepted performance measure relied on for strategic decision making for closed-end funds, whether it is being reported for the fund's portfolio or for the investors, (in either case over a relevant holding period(s)). Often specified in legal documents are target IRR expectations, both in terms of potential investments that are promising enough to be considered, as well as in terms of what IRR an investor might hope to achieve when the fund ends. Comparisons among targeted, projected, and actual IRRs are commonplace (though not contemplated in this paper), and it is critical to ensure that these are apples to apples comparisons.

In addition, the increasingly watchful eye of regulatory bodies has put pressure on alternative investment firms to be more transparent regarding fees and expenses paid to them; and to provide more adequate disclosures around performance results of the funds/investments they manage. Complex transactions with complicated fee structures are now subject to scrutiny. Some state regulators now require state pension plans and other state funds to provide more disclosure about fees they pay to alternative investment managers as part of their fiduciary responsibilities to their beneficiaries and taxpayers.

As regulators' attention has turned to real estate during the past several years, it has become apparent that the private institutional real estate industry does not have a consistent and transparent approach to the presentation, calculation and disclosures of IRR, gross of fees and promote, net of fees and promote. This lack of consistency may result in flawed comparisons or incorrect conclusions. Our industry lacks consistency in its fund documentation as it relates to what can and cannot be charged to a fund, and further lacks commonality of classifications and definitions. In addition, there is a considerable degree of inconsistency in how internal rates of return are being calculated. Investors need, and now require, the ability to compare IRRs across investments and understand the underlying components of the return calculations. Although many groups are working towards improving such weaknesses (which are detailed later in the research paper), currently the information disclosed in financial and other performance reports to investors fail to provide this much needed additional transparency, consistency and comparability for investors. Clearly, detailed industry guidance is necessary in order to gain wide acceptance of a unified approach to defining, calculating, measuring and presenting IRR information.

The NCREIF PREA Reporting Standards ("Reporting Standards") Council ("Council") approved the formation of a project Task Force to tackle this complicated issue.

Members of the Task Force were divided into sub groups to research and communicate results to the larger group. Sub groups were organized for the following purposes:

- Research and document inconsistencies in current IRR reporting practices

- Assess stakeholder sentiment including any perceived voids in information; how, when and what type of information facilitates understanding and analysis.
- Review the related standards promulgated by the Reporting Standards Foundational Standards and understand the roles of regulators and legislatures to ensure our guidance can serve to mitigate some of their concerns surrounding transparency and disclosures.
- Review current industry initiatives and leverage key conclusions where possible.
- Develop an easy to understand hierarchy between gross IRR, net IRR, including:
    - a clear identification and definition of IRR, gross of fees and promote, net of fees and promote;
    - components included within each level; and
    - definitions of the components.
- Develop underlying calculations and disclosures and address implementation challenges.

The Task Force concluded that a hierarchal approach (levels), coupled with clear identification, definition and mapping of fees and costs would result in much needed additional transparency on since inception IRR, gross of fees and promote, net of fees and promote reporting and allow for cross comparability of closed-end funds for investors.

A summary of the recommended hierarchy and recommendations for integration into NCREIF PREA Reporting Standards are presented below[1].

Fund Level Reporting Hierarchy

- Level 1: Gross IRR before investment management fees and fund Costs[2]. The level 1 IRR can be calculated using two methods[3]:
    - Level 1a – IRR reflects cash flows between a fund and its investments.
    - Level 1b – IRR reflects cash flows between investors and the fund.
- Level 2: Fund Gross IRR after deduction for fund costs but before deduction of recurring, transactional and performance-based investment management fees.
- Level 3: Level 2 less ongoing and transactional investment management fees[4].

[1] While the hierarchy was created to specifically address closed-end fund issues, we believe that many of the recommendations can be tailored for applicability to separate accounts and open-end funds at a later point in time.

[2] Level 1 should be presented net of transaction related costs (other than transaction costs deemed to be transaction fees) and deal level expenses.

[3] Optionality is provided in Level 1a and 1b to allow for a cash flow starting point of property cash flows or fund level cash flows. This was necessary due to divergence of opinions as to the appropriate starting point of level 1. The remaining levels reflect cash flows between investors and the fund.

[4] Determination of whether a transaction related charge is a transaction cost (included in level 1) or a transaction fee (included in level 3) should be treated consistently with the framework provided in the Total Global Expense Ratio (TGER).

- Level 4: Level 3 less performance-based investment management fees (e.g., incentive fees, carried interest and promotes).

Investor Specific Reporting Hierarchy

- Level 5: Individual Limited Partner specific reporting which captures the experience of a single investor, including all investor specific timing, fees and costs.

The Task Force makes the following implementation recommendation to the NCREIF PREA Reporting Standards:

Comparison of Quarterly IRR Requirements for Closed-end Funds			
Required or Recommended per Vol 1	**Description**	**Proposed change**	**Proposed required or recommended in RS 2020**
Required	Since inception IRR gross of fees	Change from requirement	Recommended
Required	Since inception IRR net of fees	None	Required
Disclosures			
Required	Gross of fees: types of fees deducted from gross return to arrive at net	Move: types of fees deducted from gross return to arrive at net to "net of fees" disclosures below	N/A
		Add: type/level of gross IRR reporting	Required
		Add: Levels 1a, 1b or 2 as preferred gross of fee reporting	Recommended
	Where a subscription line is used, disclose:	Year of first investment of the fund	Required
		Length of time between the first investment and the first capital call	Required
Required	Net of fees: Presented for all investor classes	Add: type/level of net IRR reporting	Required
		Add: Level 4 as preferred net of fee reporting	Recommended
		Add: types of fees deducted from gross return to arrive at net	Required
		Add: When Level 1 IRR is presented, stipulate that the spread between gross	Required

		and net includes fund load/fund costs	
Required	Time period and frequency of cash flows: time period for calculation and frequency of cash flows-quarterly minimum prior to January 1, 2020 and monthly minimum thereafter.	none	Required
	(New*) Realized IRR end date: Must disclose ending date of realized IRR calculation. If final net asset of fund/property haven't be distributed as of the IRR end date, the method used in determining the final distribution and IRR end date must be disclosed.	none	Required
*Approved by Council in connection with changes to TWR in fall of 2018.			

- PR.06 – Gross and Net IRR requirement
  - Require that the Gross and Net IRR include a reference to the reporting hierarchy.
  - Recommend that the Gross IRR reflect a Level 1a, 1b or Level 2 Fund level IRR. Disclosure of level used for Gross IRR would be required in PR.06.1 for consistency and comparability across closed-end funds.
  - Recommend that the Net IRR reflect a Level 4 Fund level IRR for IRR for consistency across closed-end funds.
- PR.06.1 – Gross IRR disclosures
  - Move the existing language "The Account Report must clearly disclose what types of fees are deducted from the gross return to arrive at the net return." to PR.06.2.
  - Require disclosure of level 1 or 2. If using level 1, user should specify the cash flow starting point (Level 1a or Level 1b).
- PR.06.2 – Net IRR disclosures
  - Move the existing language from PR.06.1 to PR.06.2 "The Account Report must clearly disclose what types of fees are deducted from the gross return to arrive at the net return."
  - If a level 1 IRR is provided to satisfy the Gross IRR requirement, the manager must note that the difference between Gross and Net includes vehicle related costs (aka "fund load" or "Fund costs").
- PR.06.3
  - No changes recommended.

<u>Qualifications and Limitations</u>

Please note qualifications and limitations to this paper below.

- *The information summarized herein is applicable to fund level IRR's reported for US closed-end commingled funds.*
- Since the research herein is applicable to fund level IRR's only, there may be variances which occur when calculating IRRs at the property level or investment level which are not addressed herein, for example whether a hypothetical cost of sale should be deducted from the unrealized value.
- *This research paper does not address unleveraged IRR* including the concept of whether an unleveraged IRR a better indicator of comparability.
- *This research paper does not address projected returns and their regulatory issues.*
- This research paper only contemplates in place IRRs rather than projected end of fund life IRRs.
- *The research paper does not address the impact of foreign exchange rates on IRR.* Rather, the research conducted in this paper was limited to USD denominated results within commingled funds.
- *The research does not take a position as to whether a private market equivalent (PME) approach should be included*, so that one can compare the IRR to a PME metric, the latter which is based on a benchmark index, so as to measure whether the investment in question has outperformed a passive investment in the market.

Summary

In consort, the research, calculations, disclosures and implementation guidance, detailed herein provide a consistent and transparent framework to address many of the issues associated with inconsistencies in Gross and Net IRR reporting. If adopted, the proposals will serve as a common language for investors, managers and other stakeholders which may be built on over time to further the goals of transparency and comparability. The proposed recommendations are compatible with incoming guidance from the Total Global Expense Ratio (TGER) sponsored by the Reporting Standards, INREV and ANREV as well as the 2020 GIPS standards.

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SECTION 1 INTRODUCTION

The real estate industry does not have a consistent and transparent approach to the presentation, calculation and disclosures of IRR, gross of fees and promote, net of fees and promote. Since IRR is an important performance measure relied on for strategic decision making, this lack of consistency may result in false comparisons or incorrect conclusions.

The Reporting Standards Council approved the formation of a project Task Force to address the topic. Members of the Task Force were divided into sub groups to research and communicate results to the larger group. Sub groups were organized for the following purposes:

- Research and document inconsistencies in current IRR reporting practices.
- Assess stakeholder sentiment including any perceived voids in information; how, when and what type of information facilitates understanding and analysis.
- Review the related standards promulgated by the Reporting Standards Foundational Standards and understand the roles of regulators and legislatures to ensure our guidance can serve to mitigate some of their concerns surrounding transparency and disclosures.
- Review current industry initiatives and leverage key conclusions where possible.
- Develop an easy to understand hierarchy between gross IRR, net IRR, including:
    - a clear identification and definition of IRR, gross of fees and promote, net of fees and promote;
    - components included within each level; and
    - definitions of the components.
- Develop underlying calculations and disclosures and address implementation challenges.

The findings and conclusions of the Task Force are presented herein. Upon completion, public exposure and approval by the Board and Council, resulting changes to RS Volume I will be implemented. Currently, it is expected that changes will be incorporated into RS Volume I as part of the process to reissue the Reporting Standards for 2020.

SECTION 2 RESEARCH FINDINGS AND INDUSTRY FEEDBACK

Identified inconsistencies and Mitigating Events

The Task Force's research identified inconsistencies with respect to presentation, definition, calculations and disclosures surrounding IRR reporting which are not eliminated by existing guidance. The Foundational Standards[5] (detailed below in Appendix A) within the Reporting Standards provide some level of guidance to approach a solution. Similarly, the other initiatives described herein provide some components that should be considered.

The inconsistencies are grouped in four broad categories shown below: presentation; definition; calculations; and disclosures. These inconsistencies were considered as a part of the research conducted and the development of the hierarchal approach suggested herein.

Presentation

- *Different accounting treatment for cost of participation in funds;* Fund level accounting of the cost of participation in a fund.
    - Example: GAAP treatment of placement and organization costs for closed-end funds is to capitalize them into the cost of the investment. Fair value reporting would require that the total cost of the investment is compared to fair market value for purposes of recognizing valuation changes. Amortization is not allowed.
    - **Recommendation**: As proposed herein, both direct and indirect fees and expenses should be included in an IRR calculation regardless of accounting treatment.

Definition

- *Inconsistent terminology:* Variance in definitions of terms are frequently noted in Fund governing documents.
    - Example: the term "fees" often includes some level of expenses (fund fees, fund expenses, promotes of operating partners, etc.) and therefore spreads are inconsistent.
    - **Recommendation**: The fees and costs included in TGER have been mapped to the hierarchy levels below. The associated definitions for terms included in each TGER category can be found in the Global Definitions Database.

TGER Category	TGER Inclusion	Mapping to Gross and Net IRR paper
Property related fees	Excluded	Deducted in Level 1
Property related costs	Excluded	Deducted in Level 1
Vehicle Related Costs	Included	Deducted in Level 2

[5] Collectively, U.S. Generally Accepted Accounting Principles ("U.S. GAAP" or "GAAP"), the Global Investment Performance Standards ("GIPS") and the Uniform Standards of Professional Appraisal Practices (USPAP) are the Foundational Standards within the Reporting Standards.

Ongoing Management Fees	Included	Deducted in Level 3
Transaction-Based Management Fees	Included	Deducted in Level 3
Performance Fees[6]	Included	Deducted in Level 4

Calculation

- *Inconsistent treatment of General Partner (and/or its affiliates) interest in IRR calculations:* Variations exist in current IRR reporting. In some cases, these are included in fund net IRR, sometimes excluded and sometimes only excluded at the LP only level. Therefore, performance of a fund that typically do not pay management fees or carried interest, can (when included in the IRR calculation) inflate the overall IRR, because typically, the entity receiving the incentive fee or carried interest only has a minimal commitment.
    - **Recommendation**: The research paper recommends that the reported net IRR (Level 4) should represent the return of the LPs in the fund and therefore should exclude the GP[7].
- *Waterfalls:* Waterfalls form the basis for certain fees charged by the general partner and/or its capital account balance (i.e., carried interest calculations). Care must be taken to ensure waterfall calculations, which form the basis for certain types of fees and distributions follow the intent of the limited partnership agreement. Limited partnership agreements outline the definitions, terms and calculations for the waterfall and it is known that these agreements can be unique and can pose significant challenges to facilitate apples to apples comparisons across funds. Although not in the scope of this research paper, caution should be exercised when performing comparative analysis.
    - **Recommendations**: Differing fee terms and structures across managers will always be embedded within IRR calculations. Drafting of waterfall provisions should include an example that attempts to illustrate all nuances of the incentive structure. Prospectively, terms utilized within waterfall calculations can be defined using the Global Definitions Database. Consider SEC recommendations for clarification of the calculation of the performance fees through the waterfall including: narrative examples in fund offerings on how performance fees are calculated; and providing performance fee calculation templates in the appendices to the fund documents in order to mitigate ambiguities concerning how the waterfall will be calculated.
- *In lieu of or on top (in addition to) of fees and costs:* Care must be taken to ensure that costs are considered and incorporated into the hierarchy in a manner consistent with the underlying nature of the charge.

[6] In the context of the TGER paper, Performance Fees includes fund carried interest which may not be a "fee" for financial reporting purposes but generally serves to compensate the manager for performance over a threshold.
[7] Note that in cases where the General Partner invests all or a portion of its interest in the fund pari passu to the limited partners, that portion which is pari passu is included in the limited partner amount. By deducting the non-pari passu GP interests between level 3 and level 4, the level 4 IRR should reflect the LP IRR excluding the GP entity, or portion of the GP entity, that receives incentive fee/carried interest economics. To the extent the carried interest portion of the GP cannot be separated from the pari passu GP interests, the deduction of the entire entity would be appropriate (to reflect the net LP IRR) but should be disclosed for consistency.

  - Example: An investment manager may provide brokerage services in lieu of a third party and charge market rates or better for these services. This fee would be included in Level 1 with other third -party expenses. However, if the brokerage service fee charged by the investment manager was in addition to a third-party broker, that would be included in Level 3 as a fee to the investment manager.
- *Timing of capital calls-use of subscription lines:* The impact of debt on IRR, most notably due to use of subscription lines of credit and the associated timing of investor level cash flows can result in an increase to reported IRR in a Fund's life and can entitle a manager to receive carried interest.
  - **Recommendation**: Consistent with the requirements for IRR reporting and disclosures within the Reporting Standards, the inclusion or exclusion of subscription line usage in IRR calculations must be disclosed. Subscription line disclosures should highlight: (1) Any impact to the fund vintage year; and (2) Any costs involved in the subscription line. While still in early discussion, a possible framework for disclosing the impact of the subscription line at level 1 (See level 1a and 1b spread) has been included in the illustrative Examples in Appendix B.
- *Impact of Fund Structure on IRR Calculations and Treatment of Feeder Vehicles.* With respect to IRR, feeder vehicles add additional complexity in IRR calculations. Feeder vehicles typically have regulatory or taxation purposes which may lead to differences in cash flow timing and amounts which have implications to IRR calculations.
  - **Recommendation:** The hierarchy attempts to address this issue of timing in two pieces. Investor specific reporting (level 5) specifically address the timing of flows and amounts specific to a single investor. Levels 1-4 utilize the cash flow timing of the fund.
  - It should be noted that within TGER, related vehicles fees are included regardless of whether they are occurring at the feeder level, the main fund, or directly by investors to provide a full picture of the fee load of the entire fund structure. The Gross and Net IRR Task Force agrees with this methodology for fees (level 3 and level 4) but differentiated when it came to feeder specific expenses (otherwise would be deducted in level 2). Feeder related expenses generally apply only the investors in a specific vehicle and may or may not be reflective of the cost of running a fund. The issue is somewhat similar in nature to the determination of whether a transaction fee is a transaction cost or a fee (with the differentiator being whether it is market or above market). For example, transfer agent fees are typically charged to a feeder fund to record changes in ownership. If the feeder structure didn't exist and investors went directly into the fund, it's likely the transfer agent services would still be provided at a similar level of service in the main fund. This should be part of Fund load reflected in Gross and Net Fund IRR (Level 2 and 4). In contrast, however, feeder legal entity setup costs are an added cost on top of the fund load and arguably should not impact Gross IRR. Ultimately, the Task Force considered several factors including materiality and difficulty of implementation and decided to keep feeder fund expenses at level 5 at this time but may revisit in a future phase once more feedback is received on this topic.
- Vertically Integrated vs Allocator Models: The framework provided in the hierarchy addresses differences in these two models in several ways

- "Property level" fees charged by a vertically integrated manager for property management, development management and transactional fees, should be deducted in level 1 to the extent that they reflect market related charges. If they are in addition to, they should be reflected in level 3.
- Level 3-5 should include deductions for both fees and components of fund costs which should make them comparable across vertically integrated and allocator models.

Investors Perspective and Takeaways

In order to develop, transparent measures and meaningful disclosures surrounding gross and net IRRs which will be most useful to investors and which will be readily embraced by the real estate investment industry, a sub Task Force was formed to:

- Determine how investors assess fees and expenses in real estate funds;
- Understand challenges faced by investors when making evaluations and comparisons within and across funds;
- Assess the impact and effectiveness of industry standards and best practices; and
- Identify investor needs that are not yet being met.

The sub Task Force conducted 12 interviews of selected stakeholders including: small and large general and limited partners; fund of funds; sovereign wealth funds; foreign firms; and real estate and private equity lawyers, auditors and consultants. The sub Task Force concluded that such a wide cross-section of stakeholders would help identify the size and scope of the problem and identify the limitations of currently available information.

Key observations, conclusions and considerations from that detailed report are summarized as follows:

1. The lack of consistency in classification, definition and reporting of fees and expenses makes comparisons difficult. The respondents provided some insights into the types of fund fees and expenses which require additional transparency including:
    - Carried interest-calculation methodology and whether/when it is accrued or withheld from distributions;
    - Offsets and waivers;
    - Dead deal costs;
    - Insourced and outsourced fees and expenses; and
    - Related party fees.
2. Current industry standards and guidance are not well known and therefore, not universally adopted.
3. The size of the investor's organization will substantially impact how internal reviews of performance and associated fees and expenses are conducted and resourced.
4. The attention to fees and expenses waxes and wanes depending on macro and micro economic factors.

5. Prospective application of standards and best practices will mitigate perceived data gathering hurdles.

Regulators and Legislatures

The Role of the SEC

For real estate managers that are registered investment advisers with the Securities and Exchange Commission ("SEC"), they will need to comply with the requirements under the Investment Advisers Act of 1940 and may also rely on applicable no-action letter guidance when disseminating performance return information. The SEC has taken the view that performance return calculations shown to current and/or prospective clients or investors may have a large impact on the client's investment decision- making process. As such, performance returns need to be accurate and disclosures need to properly inform the current or prospective client and investors of any material facts with regard to the calculation or presentation of the performance returns shown. Below is a brief summary of the rules under the Advisers Act that can be cited in the event of an SEC examination that results in a deficiency letter or enforcement action regarding performance return calculations and the dissemination of such information. Rule 206(4)-1 under the Act applies the Section 206 antifraud provision specifically to advertising by registered advisers and advisers required to register. The rule defines certain advertising practices deemed to violate Section 206(4), including advertisements which may contain untrue statements of fact, or may be otherwise false or misleading. Enforcement actions have stated violations of Section 206(4) when advisers have directly or indirectly published, circulated, or distributed advertisements which contain any untrue statement of material fact, or which is otherwise false or misleading. Further, Rule 206(4)-8 of the Advisers Act broadly prohibits an investment adviser from engaging in fraudulent, deceptive, or manipulative activities against investors in pooled investment vehicles. Rule 206(4)-7 requires advisers to develop written policies and procedures designed to comply with the Advisers Act.

Rule 206(4)-1(b) under the Advisers Act defines the term "advertisement" to generally mean any written communication addressed to more than one person which offers advisory services, or any notice or other announcement in any publication or by radio or television. However, the SEC has described in the *Investment Counsel Association of America, Inc.* no action letter (ICAA Letter) (March 1, 2004) that whether any particular communication – or series of communications – constitutes an advertisement under Rule 204(4)-1(b) under the Advisers Act depends upon all of the facts and circumstances. In general, a written communication by an investment adviser that responds to an unsolicited request by a client, prospective client or consultant for specific information is not an "advertisement."

The ICAA letter also stated that the SEC Staff contends, "that a written communication by an investment adviser to its existing clients generally would not be an advertisement within the meaning of rule 206(4)-1(b) merely because it discusses the adviser's past specific recommendations concerning securities that are or were recently held by each of those clients. In general, written communications by advisers to their existing clients about the performance of the securities in their accounts are not offers of investment advisory services but are part of the adviser's advisory services. If, however, the context in which the past specific

recommendations are presented by the investment adviser to an existing client suggests that a purpose of the communication is to offer advisory services, we would conclude that the communication was an advertisement".

In other words, whether a document is considered to be an "advertisement" is a facts and circumstances case. Client or investor reporting documents or letters could potentially fall outside the definition of an advertisement if they are only provided to current investors. However, if letters or reports are provided to prospects or third parties that are not clients and it can be construed that the intent of the piece is to offer advisory services, then the documents could be considered to be advertisements. Given the subjective nature, the best practice would be to consider investor reporting information to be an advertisement and follow the advertising rules under the Advisers Act and related disclosures obligations for all communications (particularly those documents that contain performance return information).

The Advisers Act does not specifically address performance advertising. However, the SEC staff letter issued to *Clover Capital Management, Inc.* (October 28, 1986) ("Clover letter"), discusses disclosure and the use of model and actual performance results in advertisements. The Clover Letter specifies that advisers should show performance returns on a net of fees basis. In a letter to *Investment Company Institute* (September 23, 1988) ("ICI"), the SEC staff indicated that advisers could present performance on a gross basis in a one-on-one presentation to sophisticated clients, if the adviser provides certain disclosures at the same time. The SEC's no-action letter to *Association for Investment Management and Research* (December 18, 1996) ("AIMR Letter") permits advisers to use gross of fee results provided that the results are presented in equal prominence with net of fee results.

While not the focus of this paper, real estate investment advisers have a tendency to disseminate projected performance returns in marketing materials. While not specifically described under the Advisers Act or in relevant no-action letters, advisers should ensure the use of substantial disclosures when disseminating any sort of projected returns. Such returns may be considered to be hypothetical in nature and are subject to inherent limitations such as changes in economic and market conditions that will have a material impact on the calculations of the projected returns shown. The SEC has shown interest in evaluating the assumptions used in such projected returns to ensure that they are not misleading in any way. In addition, the SEC has been reviewing projections compared to actual realized returns to look for evidence of an adviser intentionally trying to mislead investors if the projections are always substantially higher than actual returns. The assumptions used in the underlying performance calculations and the accompanying disclosures will likely be heavily scrutinized. Currently, the Reporting Standards do not address projected performance and accordingly, issues surrounding the calculation and presentation of projected IRR's is specifically excluded from this paper. The use of leverage and its impact on the calculation of performance returns has also been scrutinized in SEC examinations of real estate managers. For example, the use of a subscription line of credit and the effect of the line on the calculation of IRR should be disclosed (and as such is presented as a required disclosure herein). The timing of the cash flows when utilizing a subscription line vs. calling capital from underling investors will also affect the calculations of the IRR. The impact of any sort of leverage used should be disclosed to investors.

The SEC has rigorously reviewed fees and expenses during examinations of real estate managers to ensure that the fees and expenses were adequately disclosed to clients and investors. There have been a number of SEC enforcement actions regarding fees and expenses such as proper disclosure, allocations among more than one client and/or the adviser, allocations of dead deal expenses, an adviser's use of affiliated service providers and the claims that services will be provided at or below "market rates" for such services, among other issues. The reviews were conducted at both the Fund and property level accounts. The SEC asked many advisers to reimburse fees and expenses that were not properly disclosed to clients or investors.

At times, real estate managers may be unwilling to disclose a negative IRR calculation, or determine that they do not feel that they are meaningful. The SEC staff has commented on the examination of a real estate manager that the adviser failed to disclose the specific negative gross IRR for a fund level return. Even though the adviser included a gross multiple of capital alongside the IRRs shown in the presentation, the adviser did not include the specific negative IRR. The SEC staff cited in a deficiency letter that the adviser should include both positive and negative IRRs for its fund vehicles to comply with the requirements of Section 206 and Rule 206(4)-8.

State Legislative Actions

Some state legislatures are proposing or have instituted actions which will require reporting by alternative investment firms investing on behalf of state pension funds to provide more transparency and accountability on the fees they charge. This information is required to be presented by the pension funds to the public. Of particular note, California Assembly Bill (AB) 2833 targets additional transparency with respect to specific fees and expenses charged including: fees paid directly to the alternative investment vehicle, the fund manager or related parties; carried interest; and gross and net returns. AB 2833 requires annual reporting on all existing alternative investment funds. As fiduciaries to their beneficiaries, state legislatures contend that investors need to understand the full extent of compensation to the alternative investment firms and their affiliates in order to assess the reasonableness of compensation in light of market conditions and services rendered.

Proponents of AB 2833 suggest that more transparency and uniform reporting to the private equity industry will result from a level of government intervention. Others suggest that these goals can be achieved through self-regulation. As described herein, there are industry efforts which can facilitate additional transparency. Those opposing AB 2833 also suggest that reporting of such information on existing alternative investment funds may be challenging as current document provisions may not include this level of reporting thereby requiring either separate negotiations with the general partner or exiting from funds-all at substantial costs. Implementation of any new measures and level of reporting within existing frameworks can often be challenging. Future obstacles to compliance start with clearly defined reporting within the LP agreements.

California is not the only state taking legislative action. Other state bills are in varying stages of completion.

Key Conclusions

Actions by regulatory bodies, including the SEC and some state legislatures have heightened the need for appropriate disclosures and transparency surrounding fees and expenses and gross rates of return within the

real estate industry. A review of these federal and state regulatory bodies highlights the areas where additional guidance would be beneficial to the real estate investment industry.

SEC and Legislatures	Considerations for added guidance
Broader interpretation of advertising rules and applicability	Ensuring calculations, presentations and disclosures in current fund reporting sufficiently cover advertising rules.
Presentation of both gross and net IRRs is acceptable	(See Foundational Standards section)
Use of leverage and impact on performance is being scrutinized	Providing consistency in treatment of subscription lines
Regulations may follow if self-regulation is unsuccessful	Ensuring guidance developed can be made broadly accepted by the real estate industry

Review of Foundational Standards, current industry initiatives and other publications

Review of Foundational Standards, please see Exhibit A.

Current industry initiatives

NCREIF and PREA, as sponsors of the Reporting Standards and INREV (and by license ANREV), as sponsor of the INREV Guidelines, executed a Memorandum of Understanding (MoU) for the purpose of collaborating to develop global reporting standards. The intent of this collaboration is to converge standards wherever possible and when not, to provide a path to navigate from one to the other. One of the most significant projects undertaken is the ***Global Definitions Database (GDD).*** The GDD houses definitions for globally converged terms, as well as those specific to the individual sponsorship where convergence has not been achieved, either due to regional differences which preclude convergence or where convergence is targeted but has not yet been achieved. The terms used for the calculations of gross IRR, net IRR and gross to net spreads will be included in the GDD.

In addition to the above, three different but complementary initiatives provide important insights into the need for transparency with respect to fees and expenses and key takeaways utilized for this gross and net IRR research paper: ***1) the global reporting standards convergence project relating to fees and expenses, sponsored by INREV, ANREV, NCREIF, and PREA known as the Total Global Expense Ratio (TGER) ; and 2) the Reporting Standards supplement the Reporting Template, sponsored by the Institutional Limited Partners Association (ILPA). Finally, an independent publication summarized below, suggests a hierarchal approach to gross and net IRR analysis.***

1) Total Global Expense Ratio (TGER)

One of the projects undertaken by the Council, through its global collaboration with INREV and ANREV, relates to providing transparency with respect to fees and expenses. This is a two -phased project, with phase

1 issued in the 2nd quarter of 2016, and phase two completed in quarter 3 of 2019. The phase 1 work, entitled *Setting the Right Path for Global Fee and Expense Metrics-Phase 1 results* provided for the identification and definition of common fees between the investment manager and the investor and costs charged by the funds to external service providers. Phase 2 expanded on the work done and conclusions reached in Phase 1. Phase 2, *Total Global Expense Ratio: a globally comparable measure of fees and costs for real estate investment vehicles* was released for public comment in 2018 and provided calculations and associated disclosures for TGER. The public response was very supportive and as such, TGER is expected to be released in final form in 2019.

2) ILPA's Reporting Template and RS supplement

In 2016, ILPA published the Reporting Template for fees and expenses. As illustrated in the chart below, a primary goal of the ILPA Fee Reporting template and the Gross Net IRR and the global fee and expense initiatives (TGER) is the same: to provide transparency in reporting of fees and expenses for all investors to facilitate investment decision making. In order to provide for comparability, the approaches vary.

Goal: Provide transparency in reporting of fees and expenses for all investors to facilitate investment decision making	
Gross Net IRR and TGER	**ILPA [Fee] Reporting Template**
Target audience	
Fund level and Investor level	Investor level
Product	
Performance indicators	Cost aggregation schedule
Gross IRR, net IRR and spreads; total fund fee load metric	Net asset value continuity schedule showing all economic transfers
Single metric comparison (%)	Currency based schedule
Supported by accompanying research	
Utility	
Comparability across funds	Not comparable across funds
Summary analysis	Detailed analysis, line by line itemization

Our approaches are different but complementary, so connecting both provides real estate investors with useful information to facilitate investment decision- making. The ILPA template is much like an investor-level capital account statement with a focus on fees and expenses, whereas the focus of the gross and net IRR guidance described herein involves the calculation of IRR, together with accompanying disclosures which are provided to detail the components of fees and expenses tied to each IRR level, provide clear definitions of each, and therefore result in consistent and comparable IRRs. In 2018, the Reporting Standards Council, with support from ILPA, embarked on the development of the Reporting Standards Supplement to the ILPA Template. This project utilizes the information required to calculate gross net IRR as suggested within the paper and other elements included in a capital call statement and maps the information to the ILPA Reporting template. The Reporting Standards Supplement is currently available for use and can be found on the Reporting Standards website (www.reportingstandards.info).

Other publications

Presenting and Reporting Performance for Private and Illiquid Assets

An approach to provide much needed transparency in gross and net IRR calculation and analysis was presented in the paper: Best Practice Considerations: *Presenting and Reporting Performance for Private and Illiquid Assets*[8].

In the section of the paper entitled *The Performance Reporting Fee Hierarch*y, the author contends that there are five ways to present performance, each considering various levels of fees and expenses. To quote: "Each of these methods, though common practices become organized into a hierarchy."[9] The hierarchy is as follows:

- Pure Gross: performance at its maximum level where nothing is deducted-not fees, expenses, assumed or actual transaction costs.
- Gross: pure gross less actual transaction costs
- Net: Gross less management fee only
- Net-Net: Net less performance incentive fee and/or carried interest
- Pure Net: Net-Net less all remaining fees and expenses, typically administrative fees and expenses associated with operating a fund

Despite current industry initiatives and the Hierarchal Approach referenced the paper: Best Practice Considerations: *Presenting and Reporting Performance for Private and Illiquid Assets*[10], other factors remain open for interpretation and are addressed further as part of the proposed hierarchy.

Key Conclusions

Based upon the research and analysis conducted, the Council concluded that a hierarchal approach (levels), coupled with clear identification, definition and mapping of fees and costs would result in much needed additional transparency on gross and net IRR reporting and allow for cross comparability of closed- end funds for investors.

A hierarchal approach to the presentation of gross and net IRRs and gross to net spreads provides much needed transparency into this important performance metric. The approach would not contradict, but rather complement the principles and standards promulgated by the Foundational Standards identified within the Reporting Standards. From the extensive research we undertook, we are not aware of any authoritative guidance on the consistent and transparent approach to the presentation, calculation and disclosures of IRR,

[8] By Timothy F. Peterson, CFA, CAIA, CIPM, March 18, 2015
[9] Page 16 of paper
[10] By Timothy F. Peterson, CFA, CAIA, CIPM, March 18, 2015

gross of fees and promote, net of fees and promote. Using consistent terms and definitions provided through our global collaboration efforts fosters much needed consistency and comparability by and between funds and other performance measures.

As with any performance reporting, meaningful disclosures are a critical supplement to the analysis. As many of the investment managers in our industry are registered investment advisors, care must be taken that such disclosures comply with SEC advertising rules.

SECTION 3 PROPOSED HIERARCHY, DISCLOSURES AND EXAMPLES

Proposed Hierarchy

Based upon the research and analysis conducted, the Task Force proposed the following hierarchal approach.

Level 1

Within this hierarchy, Level 1 is the IRR of the Fund without regard to advisory fees (Ongoing, Transactional and Performance-Based) and fund costs (sometimes referred to as Fund Load). Level 1 should be net of all transaction specific costs which would be incurred during the normal investment process. Any transaction-based fees, which are not in lieu of a market transaction cost (such as a broker's fee), should not be deducted at this level (these fees will be incorporated at level 3). Additionally, level 1 should be presented net of all deal-level promote structures with joint venture partners.

During the research phase, there was substantial discussion surrounding the starting point of level 1 returns. The differences primarily landed in two camps, with the first looking first at deal-level flows (flows from the fund to individual investments) and the second focusing on investor level flows (flows from investors to the fund). As there was no clear consensus, the Task Force provided optionality at this level to address the concerns of both camps within the hierarchy framework. Some key differences between the two methods are presented below and detailed in Appendix B.

- Level 1a
  - Utilizes fund to investment flows.
  - Is unleveraged to the extent that fund to investment cash flows include cash derived from subscription line and fund level leverage.
  - More directly comparable to individual deal IRR's (See investment level IRR guidance in the RS Performance and Risk Manual).
- Level 1b
  - Utilizes investor to fund flows.
  - Net of all forms of leverage[11] (fund, subscription and deal-level) utilized by the fund.
  - When compared to Level 2, this method isolates the impact of "fund costs" without other noise generated from cash flow timing differences (internal fund cash management, subscription line usage, etc.).

Level 2

The Level 2 IRR builds further on the Level 1b IRR return and deducts fund related costs[12]. This IRR reflects investor's experience with respect to the investments in the fund without regard to how the investment

[11] Contemplates all forms of leverage managed through the fund structure and its feeders. As financing structures are very diverse, this is not intended to address fund leverage occurring outside the investment vehicle, such as individuals using levered lines or other sources of leverage to fund capital calls.
[12] As further discussed in the TGER framework as "vehicle-related costs".

manager is compensated. Level 2 considers items of fund load (without fees) and is net of both fund, subscription, and investment leverage, interest expense/income from credit facilities or cash deposits.

Level 2 should be consistent with fund or account level gross time weighted return calculations required in the Reporting Standards as they are net of transaction costs and fund costs but are before investment management fees. They would be different solely due to calculation differences such as TWR start and end dates and calculation methodology (Linked Modified Dietz vs IRR).

Level 3

Level 3 begins with Level 2 and deducts ongoing investment management fees and transaction fees which are not classified as transaction costs and deducted in level 1. Any fee rebates or refunds are to be included here, regardless of where they occur. If, certain fee rebates or refunds cannot be included for whatever reason (e.g. confidentiality, difficult to allocate combined fund balances rebates, etc.), it is recommended that a general footnote be included describing the reason.

Level 4

Level 4 begins with level 3 and deducts performance-based investment management compensation, such as incentive fees and carried interest (promotes), net of any claw backs. Any GP Interests which are pari passu to the LP interests are included in level 1-4. In this step, the carried interest entity or portion of the GP should be deducted to produce a net LP IRR. If the GP interest contains both pari passu and carried interest elements and cannot be segregated, the entire GP interest should be deducted at this level. While not common, if a substantial portion of the fund is non-fee paying, it is recommended that this fact be noted in the IRR disclosures due to the potential impact on the Net IRR.

Investor specific (Level 5)

Individual Limited Partner specific reporting which captures the experience of a single investor. To include investor specific side letter negotiations or other investor specific matters such as the timing of investor cash flows, tax, and feeder vehicles. This information would only be reported to the specific investor.

Disclosure Considerations

The Task Force makes the following implementation recommendation to the NCREIF PREA Reporting Standards:

- PR.06 – Gross and Net IRR requirement
  - Require that the Gross and Net IRR include a reference to the reporting hierarchy.
  - Recommend that the Gross IRR reflect a Level 1a, 1b or Level 2 Fund level IRR with specific disclosure required in PR.06.1 for consistency and comparability across closed-end funds.
  - Recommend that the Net IRR reflect a Level 4 Fund level IRR for IRR for consistency across closed-end funds.

- PR.06.1 – Gross IRR disclosures
    - Move the existing language "The Account Report must clearly disclose what types of fees are deducted from the gross return to arrive at the net return." to PR.06.2.
    - Require disclosure of level 1 or 2. If using level 1, user should specify the cash flow starting point (Level 1a or Level 1b).
    - Where a subscription line is used, require the disclosure of (1) the year of the first investment of the fund, (2) the length of time between the first investment and the first investor capital call.
- PR.06.2 – Net IRR disclosures
    - Move the existing language from PR.06.1 to PR.06.2 "The Account Report must clearly disclose what types of fees are deducted from the gross return to arrive at the net return."
    - If a level 1 IRR is provided to satisfy the Gross IRR requirement, require that the spread between gross and net mention vehicle related costs (aka "fund load" or "Fund costs") as part of the spread.
    - The existing RS requirements require disclosures for net IRR where different fee arrangements exist ("the Account Report must disclose the impact of these fees on IRR expressed, at a minimum, as a basis points range"). Since the Task Force is recommending level 4a to be used as a fund Net IRR, any non-fee-paying class (e.g. GP pari passu investment or "Friends and family" investors, etc.), would need to be part of this disclosure.
- PR.06.3
    - No changes recommended

Illustrative Examples

Appendix B contains illustrative examples and disclosure recommendations which may help with implementation.

SECTION 4 POTENTIAL TOPICS FOR FUTURE PHASES

Future phases of this project may include:

- Property and Investment level IRR.
- Unleveraged IRR and other theoretical IRR calculations
- Investment Multiples
- Side Pockets and Side Cars

APPENDIX A

Foundational Standards Reviewed

The Reporting Standards are intended to supplement, but not contradict, standards established by authoritative organizations including U.S. Generally Accepted Accounting Principles (GAAP) established by the Financial Accounting Standards Board (FASB), the Global Investment Performance Standards (GIPS®) promulgated by the CFA Institute and the Uniform Standards of Professional Appraisal Practices (USPAP) established by the Appraisal Foundation. Collectively, these standards are known as the Foundational Standards within the Reporting Standards.

As summarized herein, the Foundational Standards organizations provide some information to guide the conclusions reached by the Council on this subject matter. It should be noted that USPAP does not address internal rates of return and is therefore not included within this review.

US GAAP

Within the US private institutional real estate investment industry, performance measures generally use the fair value based financial statement information as inputs. Accordingly, a review of the accounting principles and disclosures provides important insights into the presentation and of gross and net IRRs.

Investment managers issue fund reports to investors which follow either the FASB Accounting Standards Codification (ASC) 946, *Financial Services-Investment Companies* (Investment Company Accounting) or ASC 960, *Plan Accounting-Defined Benefit Plans* or the Government Accounting Standards Board (GASB) 25, *Financial Reporting for Defined Benefit Pension Plans and Note Disclosures for Defined Contribution Plans* (Pension Fund Accounting). Within the Reporting Standards, two models are used to present and report information in accordance with US GAAP-the Operating Model and the Non-operating Model. The *NCREIF PREA Reporting Standards Fair Value Accounting Policy Manual* (Accounting Policy Manual) provides interpretive accounting guidance as well as sample financial statements for reporting.

Investment Company Accounting requires the presentation and disclosure of certain financial highlights. Within these disclosures is a requirement to report an "investment return" which can be either a time-weighted return or an IRR. US GAAP dictates when IRR reporting is required. Generally, closed-end real estate funds which are classified as investment companies will be required to report an IRR. The open-end real estate funds which are also investment companies generally report time-weighted returns (TWR) within their financial highlights. Regardless of whether TWR or IRR is reported, both must be reported both gross and net of all fees and incentives. [13]

[13] FASB Accounting Standards Codification (ASC) 946, Financial Services, Investment Companies; 946-205 Presentation of Financial Statements and 946-204-50 Disclosure.

Pension Fund Accounting under US GAAP does not require reporting of financial highlights (to include returns).

Irrespective of the underlying US GAAP accounting, investment management fees are reflected in the statement of operations and there is accompanying disclosure concerning a description of the fees incurred and manner in which these fees are calculated. Certain management fees are paid outside of the fund, directly to the investment manager. In that case the fees are not reflected in the statement of operations, but are disclosed in the footnotes. Within the Accounting Policy Manual, investment management fees are included within the broader category of real estate advisory fees. Other real estate advisory fees include acquisition, disposition, asset management, financing, incentive fees and carried interest. Although generally recognized in the financial statements as a payable to the investment manager when earned, the fee incurred may be reported as an asset on the balance sheet (as is the case of acquisition, disposition and financing fees) or as an expense in the statement of operations (as is the case with asset management and investment management) or apportioned between the balance sheet and income statement if the calculation has both an income and appreciation component (as is the case with incentive fees).

When paid to affiliated entities, other costs charged to the fund by the investment manager are reflected within disclosures surrounding related party transactions. All related party transactions are required to be disclosed regardless of financial statement materiality. A word of caution however is that not all fees and costs paid to affiliates should be included in the spread between gross and net IRR tiers. For example, a market- based leasing commission paid to an affiliate in a vertically integrated firm is a normal cost of operating a property and as such would not be included in the spread between gross and net IRR tiers.

As expected, any fees or costs billed separately to the fund investors would not be reported within the financial statements of the fund, something which constitutes an inconsistency in gross and net IRRs highlighted above. As an example, if the investment manager billed its fee outside of the fund and the fund had ongoing distributions to its investors, the manager may reduce the payment to the investor by the fee. The financial statements however would reflect the distribution at its full amount, not the amount of the net payment the investor received. In order to promote comparability across funds, when fees are charged outside of the fund, the Reporting Standards require disclosure of the impact of these fees on IRR to be expressed, at a minimum, as a basis points range[14].

Frequently, specific investors in funds may negotiate side agreements which provide for complicated fee structures and/or fee rebates.

In conclusion, US GAAP does not specifically require IRR for all types of funds. When IRR is required, GAAP requires both gross and net IRR with net IRR after deduction of all fees and promotes. As certain fees and costs can be paid outside of the fund or inside of the fund, the gross net spreads across funds may not be comparable. Finally, care should be exercised understanding the nature of the fees and costs incurred by the

[14] Section PR.06.2, NCREIF PREA Reporting Standards Handbook Volume 1, March 31, 2014.

fund, so that such fees and costs which are typically incurred as a part of property operations should be excluded from gross to net spreads.

To summarize:

- When IRR is required, both gross and net IRR must be presented
- Net IRR must be calculated after deduction of all fees and promotes
- Certain fees can be paid inside or outside of the fund and U.S. GAAP captures only those inside of the fund, so gross to net IRR spread across funds may not be comparable
- Fees and costs incurred as part of property operations are excluded from gross to net spreads

GIPS®

General

As stated in the Reporting Standards Handbook Volume I, the performance and risk elements draw upon the GIPS standards for basic ethical principles such as full disclosure and fair representation of investment performance and for other specific methodologies and disclosures. The Reporting Standards do no conflict with the GIPS standards, and compliance with the Reporting Standards is not predicated on compliance with the GIPS standards. However, it is important to note that the GIPS standards apply on a firm-wide basis only, while the Reporting Standards apply more specifically to Account/Fund reporting. As such, the performance and risk measurement elements of the Reporting Standards do not incorporate all elements of the GIPS standards. Similarly, the Reporting Standards contain elements which the GIPS standards do not address.

An exposure draft, encompassing a complete overhaul of the GIPS standards was released for comment in 2018 (2020 GIPS Exposure Draft). Included in 2020 GIPS Exposure Draft is the elimination of real estate chapter (and other specific chapters like private equity) in favor of a single set of standards applicable to all private market investments. The Reporting Standards Board and Council provided a detailed response to the 2020 GIPS Exposure Draft. The 2020 version of the GIPS standards was released in June 2019. The information presented herein does not contradict the 2020 version of the GIPS standards.

Key Conclusions from Review of Foundational Standards

The intent of this research is to supplement, but not contradict either U.S. GAAP or the GIPS standards.

APPENDIX B

Illustrative Example - The Gross - Net Heirarchy [1,2,3]

Level	Level Description	TGER Alignment and Other Notes [4]	IRR (%)	Nominal Amount ($)	3/31/2015	6/30/2015	9/30/2015	12/31/2015	3/31/2016	6/30/2016	9/30/2016	12/31/2016	3/31/2017	6/30/2017	9/30/2017	12/31/2017	3/31/2018	6/30/2018	9/30/2018	12/31/2018	3/31/2019
Level 1a	Gross IRR before investment management fees and fund Costs but net of tranaction costs.	Consistent with TGER, Fund Gross IRR should be net of property-related costs and property related "fees in lieu" of costs. See TGER detailed Fee and Cost Matrix for details.	16.73%	794	(500.00)	(500.00)	-	-	6.50	6.50	10.00	7.50	7.50	6.50	10.00	7.50	10.00	6.50	10.00	7.50	1,697.50
Subtract:	Cash flow Adjustments related to fund or subscription leverage or timing differences of investor capital flows vs investment capital flows.	In the instance of fund leverage, Draws, Principal repayments and interest are treated as if it were equity.		4	(500.00)	(500.00)	503.50	500.00		-											
Level 1b	Gross IRR before investment management fees and fund Costs but net of tranaction costs.	Consistent with TGER, Fund Gross IRR should be net of property-related costs and property related "fees in lieu" of costs. See TGER detailed Fee and Cost Matrix for details.	19.40%	790.00			(503.50)	(500.00)	6.50	6.50	10.00	7.50	7.50	6.50	10.00	7.50	10.00	6.50	10.00	7.50	1,697.50
Subtract:	Vehicle-related costs	See TGER detailed Fee and Cost Matrix		(2.50)					(0.50)				(0.50)			(0.50)			(0.50)		(0.50)
Subtract:	Vehicle-related taxes	See TGER detailed Fee and Cost Matrix		(1.00)					(0.25)	(0.25)				(0.25)				(0.25)			
Level 2	Fund Gross IRR after deduction for fund costs but before deduction of recurring, transactional and Performance fees	IRR after the deduction of vehicle related costs.	19.30%	786.50			(503.50)	(500.00)	5.75	6.25	10.00	7.50	7.00	6.25	10.00	7.00	10.00	6.25	9.50	7.50	1,697.00
Subtract:	Investment management fees	See TGER detailed Fee and Cost Matrix Includes all ongoing and transactional based fees, regardless of whether paid in fund, directly to to manager, or through feeder vehicle. Transaction fees charged by manager above market transaction costs should be deducted here. Transaction fees in lieu of transaction costs, should be included in the Fund Gross IRR (Level 1)		(45.31)			(1.56)	(3.13)	(3.13)	(3.13)	(3.13)	(3.13)	(3.13)	(3.13)	(3.13)	(3.13)	(3.13)	(3.13)	(3.13)	(3.13)	(3.13)
Level 3	Fund Net IRR before Performance-based fees. Level 2 less ongoing and transactional investment management fees		18.06%	741.19			(505.06)	(503.13)	2.63	3.13	6.88	4.38	3.88	3.13	6.88	3.88	6.88	3.13	6.38	4.38	1,693.88
Subtract:	GP Incentive Fees and Carried Interest	Includes all performance related fees (incentive, promotes, carried interest, etc, net of rebates, regardless of whether paid in fund, directly to to manager, or through feeder vehicle.		(133.41)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	(133.41)
Level 4	Fund Net IRR. Net of transaction costs, Fund costs, Ongoing, Transactional and Performance fees		15.29%	607.77			(505.06)	(503.13)	2.63	3.13	6.88	4.38	3.88	3.13	6.88	3.88	6.88	3.13	6.38	4.38	1,560.46
Adjust	Investor specific adjustments	Filter level 5 to individual investor specific timing, costs and fees.		(508.81)			429.30	427.66	(2.23)	(2.66)	(5.84)	(3.72)	(3.29)	(2.66)	(5.84)	(3.29)	(5.84)	(2.66)	(5.42)	(3.72)	(1,318.59)
Level 5	Individual Investor Net IRR	Net of fund load, fees and promote as experienced by the individual investor.	16.39%	98.97			(75.76)	(75.47)	0.39	0.47	1.03	0.66	0.58	0.47	1.03	0.58	1.03	0.47	0.96	0.66	241.87

Illustrative Example Notes:

[1]The simplified example has been provided solely for the purpose of understanding the components of performance within the Gross-Net IRR hierarchy. Performance results are not intended to represent actual or representative results of any fund, investment or strategy. Similarly, the differences between levels are not intended to be representative of spreads which would be achieved with actual fund results.

[2]The examples utilizes quarterly cash flows for simplicity. Existing guidance within the NCREIF/PREA Reporting standards or other foundational standards would typically dictate the minimum required cash flow frequency (daily, monthly, quarterly).

[3]The paper and related examples do not address characterization of cash inflows and outflows for investment multiple purposes.

[4]The examples reference the "Detailed Fee and Cost Matrix" in the appendices of the Total Global Expense Ratio consultation paper dated April 2018.

Presentation Example 1 - SI IRR and Disclosures

Fund XYZ

Since Inception Internal Rate of Return (IRR)

	Inception to date
Gross of Fee [1, 2]	#REF!
Net of Fee [3]	#REF!

Example of recommended and required disclosures with proposed RS amendments.

[1]Gross IRR

The Gross Fund IRR has been calculated using the level 2 Fund IRR methodology described by the NCREIF PREA Reporting Standards. Gross returns are presented net of transaction costs and fund costs but do not reflect the deduction of investment management fees. Results are presented net of all leverage.

[2]Subscription Line

The fund utilizes a subscription line of credit. In January 2015 the fund utilized a subscription line of credit to purchase it's first investment. The first capital call from investors was September 2015.

[3]Net IRR

The Net Fund IRR has been calculated using the level 4 Fund IRR methodology described by the NCREIF PREA Reporting Standards. The Net IRR reflects the deduction of all fund costs, transaction costs, and investment management fees. Carried interest to the general partner and its affiliates has been accrued based on the hypothetical liquidation value of the fund at fair value. Limited partners pay ongoing asset management fees ranging between 0 and 150 basis points. Carried interest is charged to investors based on the waterfall hurdle and range between 0 and 200 basis points based on the hypothetical liquidation of the fund at fair value.

Presentation Example 2 - SI IRR and Disclosures

Fund XYZ

Since Inception Internal Rate of Return (IRR)

	Inception to date
Gross of Fee [1, 2]	#REF!
Net of Fee [3]	#REF!

Example of recommended and required disclosures with proposed RS amendments.

[1]Gross IRR

The Gross Fund IRR has been calculated using the level 1a Fund IRR methodology described by the NCREIF PREA Reporting Standards. Gross returns are presented net of transaction costs but do not reflect the deduction of investment management fees or fund costs. Results are presented gross (before the impact) of the subscription line but net (after the impact) of all property leverage.

[2]Subscription Line

The fund utilizes a subscription line of credit. In January 2015 the fund utilized a subscription line of credit to purchase it's first investment. The first capital call from investors was September 2015.

[3]Net IRR

The Net Fund IRR has been calculated using the level 4 Fund IRR methodology described by the NCREIF PREA Reporting Standards. The Net IRR reflects the deduction of all fund costs, transaction costs, and investment management fees. Carried interest to the general partner and its affiliates has been accrued based on the hypothetical liquidation value of the fund at fair value. Limited partners pay ongoing asset management fees ranging between 0 and 150 basis points. Carried interest is charged to investors based on the waterfall hurdle and range between 0 and 200 basis points based on the hypothetical liquidation of the fund at fair value.



Handbook Volume II: Research

Assessing and Measuring Financial Risk Related to Subordinated Debt Investments in Private U.S. Institutional Real Estate Investment Funds

July 13, 2016

NCREIF
National Council of Real Estate Investment Fiduciaries

PREA
pension real estate association

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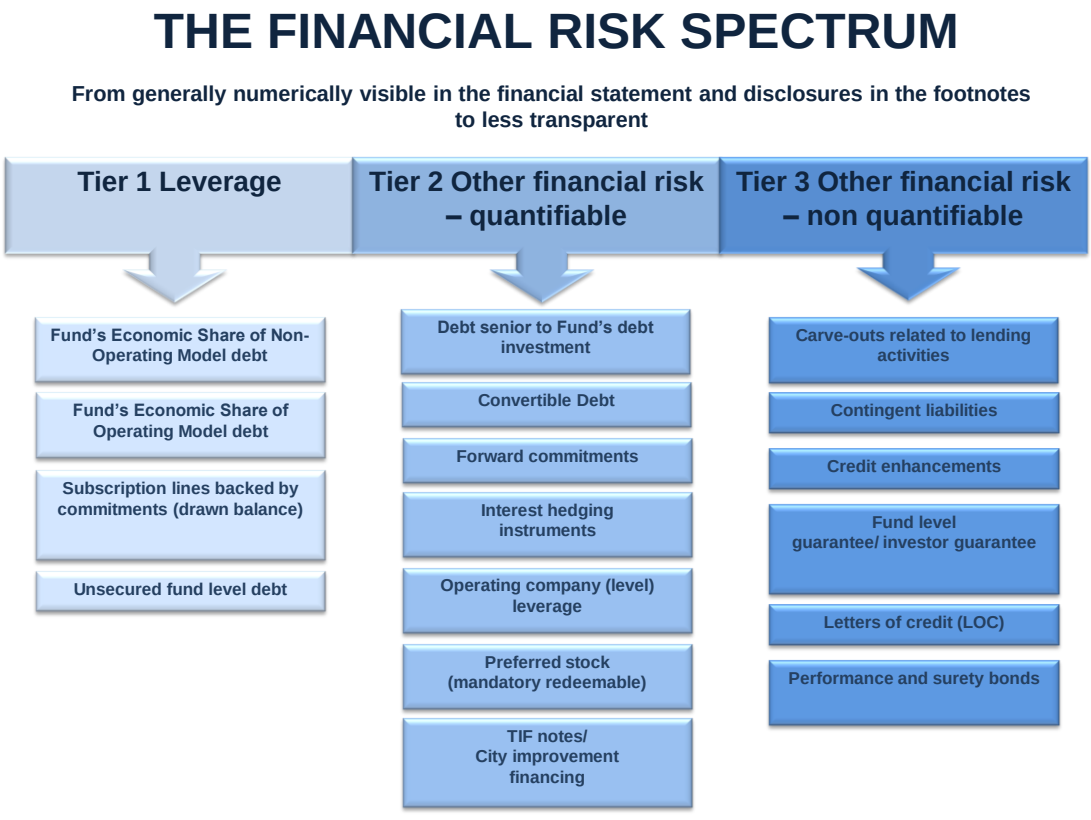
Overview

In 2014, the NCREIF PREA Reporting Standards (Reporting Standards) were revised to include elements of leverage risk. The required new elements include: Fund Tier 1 (T1) Total Leverage-at cost and the Fund T1 Leverage Percentage. These elements were added to the Reporting Standards in order to provide investors with a consistent and comparable way to measure leverage risk within and across real estate portfolios.

As part of the development of these measures, the project task force created a three-tiered the Leverage Spectrum which illustrates the variety of complex deal structures that can be utilized by institutional real estate advisors on behalf of investors. The Tier 1 leverage measures incorporate all of the elements listed in the Leverage Spectrum under Tier 1.

The Reporting Standards Council continues to focus its efforts to provide more transparency with respect to elements of leverage risk. Accordingly, a project task force was formed to research, analyze and develop measures for those elements in Tier 2 (T2). Generally, the elements in T2 are "debt like", as subject to certain conditions and contingencies, and have the same impact as traditional debt (i.e., leverage) in that they put the Fund investor's capital at additional risk. Unlike T1, these elements are generally not thought of as traditional debt. The task force has concluded that a preferred labeling of these elements is: Other Elements of Financial Risk. Accordingly, the Leverage Spectrum will hereinafter be referred to as the Financial Risk Spectrum with T1 categorized as "leverage" and T2 as "other financial risk" as illustrated below.

NCREIF PREA Reporting Standards: Financial Risk Spectrum



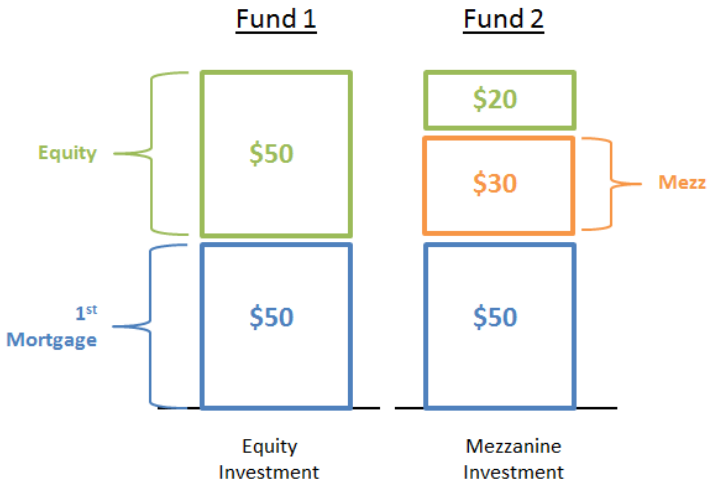
T2 elements represent common financing strategies that investment managers may engage in but to date have been represented to potential and existing clients in various manners. Since the 2008 financial crisis, there has been mounting pressure by the investor community to provide further transparency on the risk associated with various investing activities and to improve comparability amongst investment strategies. This Task Force endeavors to improve the practice of measuring risk as opposed to managing risk. The evolution of risk measurement will help investors and investment managers assess the components of risk undertaken to achieve returns and construct portfolios with more clearly defined risk/reward frameworks.

This research paper focuses on one aspect of Tier 2; Debt senior to a Fund's debt investment, whereby financial risk associated with investments in subordinated debt is examined. Additional research will focus on the other elements included in T2.

Background

This research paper will focus on methodologies to calculate risk associated with subordinated debt[3] at the individual asset and aggregate portfolio levels. The loan-to-value (LTV) ratio, a metric commonly used to assess risk associated with debt, does not fully reflect the risks associated with being in a junior position to another creditor.

For example, an investor may be assessing two funds; Fund 1) investing equity in property while borrowing third party debt in the form of a 1st mortgage, and Fund 2) debt investing in the form of lending within tranches (i.e., Mezzanine). See the two capital stacks, below.



Current guidance on calculating leverage (i.e., LTV; T1 Leverage) would represent the mezzanine investor (Fund 2) as having 0% LTV while the equity investor (Fund 1) would have an LTV of 50%. In reality, the mezzanine investment is "junior" to the first mortgage piece, which typically carries higher risk of (credit) loss than a first mortgage position but is viewed safer than an equity position. However, the upside of a mezzanine investment is generally more limited than an equity investment. The Task Force

[3] Subordinated debt is typically debt investments that represent portions of the capital stack that are junior to a first mortgage but yet senior to an equity position in a property investment. This definition encompasses 'mezzanine', B/C-notes, and possibly other forms of 'tranching'.

refers to the junior subordination positions as an "equity buffer" since it typically protects the mezzanine position from loss in an event of a market downturn. For example, the mezzanine investor in the diagram above would suffer minimal-to-no loss on investment value if the total property value were to fall by 10%. Therefore, the mezzanine piece does not carry as much risk as an equity position and a risk measure associated with subordination should take this into account.

The risk quantification methodologies (see Task Force Proposed Methodologies below) explored in this paper have been put forth to capture a measure of risk that can be viewed and assessed in the same format as the Loan-To-Value ratio. There is consideration given (see Industry Feedback Section) to utilize statistical methods of evaluating risk through return probabilities (i.e., Value-at-Risk framework) which could more accurately reflect all risk given an appropriate historical proxy of the investment being underwritten. However, there is considerable weight applied to methods that utilize an already existing "Point-in-Time" framework similar to the LTV calculation used broadly throughout the industry at present.

There are practical limitations to accurately measuring risk, including but not limited to:

- Availability of information (Collateral Value)
- Intercreditor agreements
- Pricing/Valuation

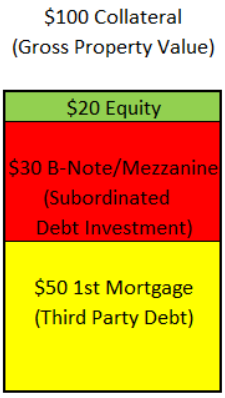
The Task Force is aware of the challenges which may dilute the accuracy of assessing risk in the methodologies discussed in the latter sections of this paper. However, the Task Force concluded that the industry would be best served by an imperfect measure of risk for subordinated debt than none at all. The methodologies discussed can be viewed as a starting point that can be refined over time.

Task Force Proposed Methodologies

The task force vetted two different, yet related methodologies to measure the risk associated with subordinated debt investments: Economic Ownership (OE) and Last Dollar Exposure (LDE)

Economic Ownership (EO) Method

The Economic Ownership method looks through to the underlying collateral's capital stack and treats a subordinated debt investment as equity. By treating it as equity, an investor is better able to assess its financial risk due to its position within the entire capital stack. The proposed T2 Financial Risk measure, below, is calculated consistently with the T1 Leverage method (Third Party Debt x Economic Ownership) / ((Gross Property Value + Other Assets) x Economic Ownership).



Loan to Value:	=	Third Party Debt / Gross Property Value	50 / 100	=	50%
Economic Ownership (EO)	=	Subordinated Debt Investment / Equity + Subordinated Debt Investment	30 / 30+20	=	60%
T2 Financial Risk	=	Third Party Debt x EO / Gross Property Value x EO	30 / 60	=	50%

Pros of Economic Ownership Model

- Consistent with existing T1 Leverage calculation which allows it to be additive to the portfolio T1 Leverage Metric.
- An investor generally knows the value of a position(s) senior to its subordinated debt investment.
- Equity buffer is being incorporated in the denominator via the Gross Property Value.

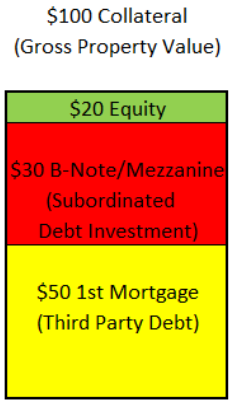
Cons of Economic Ownership Model

- Requires access to total asset on a fair value basis.
    - Collateral may not be valued by external appraisers.
    - Collateral may be valued by the advisor using less rigorous valuation methodology than would be used if they were a true equity investor.
    - Cash, receivable and other assets only available if agreements require the information to be reported.

An example of how this methodology would work across various investment types in a portfolio is detailed in **Exhibit 1**.

Last Dollar Exposure (LDE) Method

The Last Dollar Exposure method looks through to the underlying collateral's capital stack and exposes the risk associated to a subordinated debt investment by measuring priority payments to position senior to the b-note/mezzanine debt against changes in collateral's gross property value. The proposed T2 Financial Fisk measure is outlined below:



Last Dollar Exposure	=	Third Party Debt + Subordinated Debt / Gross Property Value	50 + 30 / 100	=	80%
Gearning Factor	=	Third Party Debt / Third Party Debt + Subordinated Debt	50 / 30+50	=	63%
T2 Financial Risk	=	Last Dollar Exposure x Gearing Factor	80% x 63%	=	50%

Pros of Last Dollar Exposure Method

- Consistent, on an individual investment basis, with the proposed Economic Ownership method noted previously.
- An investor generally knows the value of a position(s) senior to its subordinated debt investment.
- Equity buffer is being incorporated in the denominator of the first step of the calculation, "Last Dollar Exposure".

Cons of Last Dollar Exposure Method

- Not consistent with T1 concepts and therefore, unable to aggregate together T1 Leverage and T2 Financial Risk up to a portfolio level.
- Requires access to total asset on a fair value basis.
    - Collateral may not be valued by external appraisers.
    - Collateral may be valued by the advisor using less rigorous valuation methodology than would be used if they were a true equity investor.
    - Cash, receivable and other assets only available if agreements require the information to be reported.

An example of how this methodology would work across various investment types in a portfolio is detailed in **Exhibit 2.**

Industry Involvement

The Task Force was formed with members representing various organizations in the U.S. institutional private real estate landscape, including consultants and investment managers.

Considerable industry feedback was obtained during the various phases of the initiative. The four primary sources of feedback can be categorized into distinct groups: **Academia**, **NCREIF Consultants**, **Task Force Consultative Group**, and **Investors**. The feedback included both comments on the aforementioned **Economic Ownership** and **Last Dollar Exposure** methods, as well as additional proposed methodologies. The Task Force Consultation Group includes representation from global real estate management firms that have experience in non-core and debt investing.

Academia

As part of the outreach to academia, the Task Force enlisted feedback and suggestions from a prominent academic who is a Clinical Professor of Real Estate at a highly credentialed university. The Task Force's proposed methodologies (i.e., Economic ownership and Last Dollar Exposure) were reviewed and given feedback on the similarities of the two methodologies. There were suggestions that the Task Force review methods by which CMBS default risk is assessed on subordinated tranches via a Journal article written by Xudong An et. al., published on July 27th, 2014 titled, "What is Subordination About? Credit Risk and Subordination Levels in Commercial Mortgage-backed Securities (CMBS)"[4].

The Task Force theorized that the Economic Ownership and Last Dollar Exposure methodologies produced consistent LTVs per investment but relied on the academic to provide proof that the two methodologies do in fact produce the same result. He proved this algebraically and it is exhibited, below:

[4] An, X., Deng, Y., Nichols, J. B., & Sanders, A.B. (2014). What is Subordination About? Credit Risk and Subordination Levels in Commercial Mortgage-backed Securities (CMBS). *Journal of Real Estate Finance and Economics.* 51:231-253.

A = first-mortgage loan (ala the A piece in CMBS structure),
B = mezzanine loan (ala the B piece in CMBS structure),
E = investor equity, and
P = property value (= *A* + *B* + *E*).

Method 1 (EO)		Method 2 (LDE)
$\frac{\frac{B}{B+E}A}{\frac{B}{B+E}P}$	=	$\frac{A+B}{P} x \frac{A}{A+B}$
$\frac{\frac{B}{B+E}A}{\frac{B}{B+E}P}$	=	$\frac{A+B}{P} x \frac{A}{A+B}$
$\frac{A}{P}$	=	$\frac{A}{P}$

Both methodologies will have the same leverage ratio at the investment level and neither method takes into account a concept of subordination borrowed from the CMBS community (as discussed below). For instance, changing the size of the mezzanine loan will not change the investment level leverage ratio, even though it will affect the amount of dollars that flow into the portfolio level financial risk ratio.

The CMBS community tends to use subordination levels in combination with credit ratings given by an independent agency to assess risk. Subordination levels are defined as, "The proportion of principal outstanding of the junior tranches who will absorb the initial credit losses, determine how much credit support the deal structure provides the senior tranches." Xudong An et.al. conclude that the subordination levels do not have a strong relation to ex-post or ex-ante credit risk. Furthermore, the journal article purports a collection of non-credit risk factors (i.e., supply and demand factors, deal complexity, issuer incentive, and general time trend) to be more significant drivers of subordination levels.

The subordination journal article is very helpful in exploring methods of assessing risk used most commonly in a CMBS/debt investing universe. The Task Force will continue to consider the significance of using factors such as debt service coverage ratio, LTV, and occupancy rates in assessing credit loss risk per investment. However, it is not clear at this point how CMBS methods of assessing risk might work for a portfolio of diverse investment types that include a combination of equity and debt investments related to real estate.

NCREIF Consultants

NCREIF has a network of experienced industry professionals that consult NCREIF or are employed to help with various NCREIF products. The Task Force approached several NCREIF consultants/staff about the issue of measuring risk related to subordinated debt and was met with a healthy amount of comments and suggestions. The suggestions typically approached the initiative by utilizing a Value-at Risk[5] ("VaR") concept which is used as a risk management tool in the financial industry. This metric relies heavily on historical data to produce a probability of expected loss for a given portfolio and time horizon. While this metric may be more broadly considered for the private real estate industry, it has not been widely used by industry practitioners. The drawback to using this metric is the potential for slow uptake by investment managers given the complexity of statistical understanding needed to successfully interpret the figure more broadly.

An additional solution to measuring subordinated debt risk was presented by Joe D'Alessandro who is the Director of Performance Measurement at NCREIF. Mr. D'Alessandro purposed a methodology that relies heavily on current risk measures used in performance measurement (i.e., Sharpe Ratio, Treynor and Information ratios) and was adapted to capture risk related to volatility in cash flow designated for the subordinated debt investment. The formal proposal of this methodology is further detailed in Exhibit 3, but a brief summary is as follows:

The Joe D'Alessandro Method incorporates the traditional concepts of debt service coverage and loan to value ratios as well as an actual experience adjustment factor.

- **Excess Cash Flow Indicator ("ECFI")**
  - $\frac{Excess\ Cash\ Flow\ Return}{Standard\ Deviation\ of\ Excess\ Cash\ Flow\ Return}$
  - Where 'Excess Cash Flow Return' is
    - $\frac{NOI - Interest\ Expense - Preferred\ Dividends - Non\ Financial\ Capital\ Expenditures}{Avg\ Debt\ Outstanding\ Principal\ Balance + Preferred\ Equity\ Investments}$
- **Excess Value Change Indicator ("EVCI")**
  - $\frac{Excess\ Value\ Change\ Return}{Standard\ Deviation\ of\ Excess\ Value\ Change\ Return}$
  - Where 'Excess Value Change Return' is
    - $\frac{MV_1 - MV_{t-1} - Financed\ CapEx - Participating\ Interest}{Avg\ Debt\ Outstanding\ Principal\ Balance + Preferred\ Equity\ Investments}$
- **Excess Total Return Indicator** (i.e., on a debt investment)
  - $\sum ECFWF(ECFI), EVCWF(EVCI)$
  - Where;
    - ECFWF = Excess Cash Flow Weighting Factor
    - EVCWF = Excess Value Change Weighting Factor
- **Final Metric**

[5] "**Value-at-risk** (VaR) is a probabilistic metric of market risk (PMMR) used by banks and other organizations to monitor risk in their trading portfolios. For a given probability and a given time horizon, value-at-risk indicates an amount of money such that there is *X* probability of the portfolio not losing more than *X* amount of money over *X* horizon. For example, if a portfolio has a one-day 90% value-at-risk of USD 3.2 million, such a portfolio would be expected to not lose more than USD 3.2 million, nine days out of ten." – Risk Encyclopedia

- $\frac{Excess\ Total\ Return\ on\ Debt}{Risk}$

The Excess Return is the amount by which the return exceeds the debt instruments being evaluated. In other words, the return cushion available to handle decreases in cash flow and value of the underlying real estate investment. This purposed methodology incorporates measures, like DSCR and LTV, which have shown in academic studies to be relevant indicators of risk (potential loss). In fact, the return framework suggested is the inverse of the debt-to-GDP ratio commonly used when evaluating government debt. In addition to incorporating prominent and already understood metrics in the private real estate industry, Mr. D'Alessandro provides further detail on exactly what underlying property information would be required to construct such a framework. It is a worthy endeavor to include such metrics in performance framework where the marginal return due to investment structure can be related to a per unit of marginal risk via the Sharpe Ratio concept.

The potential drawbacks to the proposed methodology do not differ widely from the methods proposed by the Task Force. The availability of information on the collateral may be a potential issue but it seems that there may be more required details for the methodology purposed by Mr. D'Alessandro. His method also recommends using historical time series to assess "risk" for the denominator of the "final metric" which may not be available especially for purposes of an ex-ante analysis.

Task Force Consultation Group

Earlier in the year, the Task Force Consultation Group convened via webinar to review proposed methodologies for subordinated debt, forward commitments, and the overall concept of a "Tiered" financial risk metric. The summarized points relating to measuring subordinated debt risk were as follows:

- *Information relating to the junior positions may not be available, yet information relating senior positions amount/s is. Mezzanine tranches are valued in some cases and the risk associated with the borrower's ability to pay will be incorporated. Are we overlapping (or doubling up) risk elements?*
- *To access needed information for the calculation, there may be reporting requirements by the lender to access information related to the borrower (equity holder).*
- *Some platforms may have internal teams that assess the total collateral value but would most likely exhibit a conservative bias (i.e., not accounting as much for a 20% increase in equity value)*

The points above relate more towards the implementation of a proposed risk measure, given the information needed from investment managers to form calculations. While the Task Force must take hurdles of implementation into consideration during this phase of the initiative, the hurdles should not deter progress towards constructing a measure that will provide better transparency of risk.

Additional comments were given to the overall concept of creating tiers of financial risk. These considerations encompassed the ability to explore adapting methodologies already used in the "stock and bond" asset classes, and recognition of the possibility of over-simplifying risk measurement.

Comparing Commonly Used Risk Metrics

There are currently many different metrics that investment managers use to assess risk. The most frequently quoted metrics mentioned during the discovery phase of this initiative are as follows:

- Using LTV levels (i.e., High-midpoint-low) to give an indication of Tranche thickness and position in the capital stack
- Using Debt Service Coverage Ratio to indicate the asset's ability to service the debt
- Debt Yield to show the ratio of asset income to the amount of debt balance being placed
- Goal Seek models which seek to model out stress-testing scenarios. How much would the market values need to fall in order to meet last dollar exposure?

Each metric described above have their strengths and weaknesses in assessing risk. They are all using 'point-in-time' analysis but seem to differ most based on the inclusion of either values only (i.e., LTV), income only (i.e., DSCR), or both in the case of Goal Seek models.

To compare the metrics mentioned above, the task force created a simple example of an asset's capital stack featured in more detail in Exhibit 4. The example assumes a mezzanine investment with an LTV tranche position of 65% to 88% at a 5% interest rate. We assume that there is no change in income for the property, but we do use 'goal seek' to find what decline in value would need to be incurred for the mezzanine's last dollar exposure to be met, which is -11.6%. Please see the summary of the various risk metrics, below.

Risk Metrics for Mezz	Period 0	Period 1
LTV Levels		
High	88%	100%
Mid	77%	87%
Low	65%	74%
Thickness	23%	26%
Equity DSCR	1.93	1.93
Debt Yield	9.20%	9.20%
T2 - Sub. Risk		
Numerator	5,633,333	8,450,000
Denominator	8,633,333	11,450,000
Investment LTV	**65%**	**74%**
Goal Seek to see at what point Last Dollar Exposure is met	-11.58%	

Thickness of tranche is typically seen as one proxy for risk. A larger tranche should be less sensitive to loss (i.e., larger base to absorb losses). However, we see that the 'thickness' theoretically increases once the equity position has incurred 100% loss. This is a denominator effect of the total capital stack

shrinking rather than the mezzanine position increasing in dollar amount. Therefore, the thickness of tranche is not always a reliable and consistent indicator of risk. An integral point of weakness in using LTV is the inclusion of valuation which is typically more volatile than income for a stabilized asset and may not represent the asset's ability to service the debt in-place, hence the use of Debt-Service Coverage Ratios and Debt Yields. Both metrics use the property's income to assess the asset's ability to pay interest or to assess the amount a lender is willing to lend. These types of metrics have become more prevalent since the last downturn and are thought to be more conservative since increases in value are not a factor. This also means that a decrease in value is not taken into consideration.

The T2 Subordinated Risk Metric correctly reflects the increase in risk given the deterioration of junior positions (i.e.,the equity in this case) and increases the risk exposure in total dollar amount to the overall portfolio, as evidenced by the denominator increasing from $8,633,333 to $11,450,000. The 'Goal Seek' method of assessing risk has the potential to be the most accurate method of assessing risk since it is highly customizable to deal specific variables (i.e., deal structure and legal risk mitigants) and could include assumptions on income and sensitivity to collateral value changes. However, this method of assessing risk would be the least standard across managers and investments which would weaken comparability.

Conclusions

The Financial Risk Task Force recommends moving forward with creating guidance around the "Economic Ownership" method for the following reasons:

1. The practice of proportionally allocating investment risk by "Economic Ownership" is already used for the Leverage Tier 1 ratio.

2. The method is a "point-in-time" analysis that does not require numerous data points, making implementation less strenuous on investment managers.

3. Economic Ownership methodology incorporates the "equity buffer" in its assessment of risk, giving a truer representation of risk related to the subordination.

4. The method provides a good starting point to build in further details that could affect risk (i.e., inter-creditor agreements, etc.).

The Financial Risk Task Force has concluded that no one metric will encompass all risks associated with an investment activity or type. However, it is important to continually develop measures that facilitate the disclosure and impact of risks associated with investing in real estate. The Task Force believes that the proposed Economic Ownership methodology accomplishes a step towards facilitating a more informed discussion around subordinated debt risk.

Definitions

- **B-Note Investment** – debt investment secured by collateral on which the lender's position is subordinate to the senior debt
- **Economic Ownership** – A term used to describe the ownership of the Fund's interest in a particular joint venture investment based on the current period hypothetical liquidation (i.e. waterfall) calculation. (As used herein, joint venture means any investments which is other than wholly owned). At different points in the life of the investment, the Economic Share may differ from the contractual share for the investment.
- **Gearing Factor** – change to debt investment leverage
- **Investment Level** –Evident or applied only to the entire investment i.e.. e., "Investment-level debt" and "investment-level leverage". By contrast, "property-level" applies to characteristics of individual properties within an investment.
- **Last Dollar Exposure (LDE)** – change to Borrowers Leverage (debt advance by you and any senior to you)
- **Mezzanine Debt Investment** – debt investment, subordinate to senior debt and B-Notes, secured by equity which allows for the lender to step into the shoes of the borrower in the event of default or free-foreclosure proceedings.
- **Portfolio Level** – represents a portfolio of multiple, and possible various types, of real estate related investments.
- **Preferred Equity Investment** – equity investment in an entity which is senior to common equity
- **Senior Debt Investment** – debt investment secured by collateral on which the lender has put in place a first lien

Exhibits

Exhibit 1 (Economic Ownership Portfolio Example)

SAMPLE PORTFOLIO
ECONOMIC OWNERSHIP METHOD

		Total	Wholly-Owned	NCI	Equity Method	Whole Loan	Mezzanine Loan
Collateral Capital Stack							
Gross Property Value ("GPV")			100	100	100	100	100
Other assets			20	20	20	20	20
Other Liabilities			(10)	(10)	(10)	(10)	(10)
Loan to Value %:							
1st Mortgage			50%	50%	50%	0%	50%
Fund Whole Loan			0%	0%	0%	50%	0%
Fund Mezzanine			0%	0%	0%	0%	30%
Equity Split:							
Fund NAV			100%	50%	50%	0%	0%
Partner NAV			0%	50%	50%	100%	100%
Collateral Balance Sheet							
GPV			100	100	100	100	100
Other Assets			20	20	20	20	20
Other Liabilities			(10)	(10)	(10)	(10)	(10)
1st Mortgage			(50)	(50)	(50)	-	(50)
Fund Whole Loan			-	-	-	(50)	-
Fund Mezzanine Loan			-	-	-	-	(30)
Net Asset Value			60	60	60	60	30
Fund NAV			60	30	30	-	-
Partner NAV			-	30	30	60	30
Fund Balance Sheet							
Real Estate Investment		310	100	100	30	50	30
Other Assets		40	20	20	-	-	-
Other Liabilities		(20)	(10)	(10)	-	-	-
1st Mortgage		(100)	(50)	(50)	-	-	-
Fund Whole Loan		-	-	-	-	-	-
Fund Mezzanine Loan		-	-	-	-	-	-
Net Asset Value		230	60	60	30	50	30
Fund NAV		200	60	30	30	50	30
Partner NAV		30	-	30	-	-	-
T1 Leverage Calculation							
Loan to Value:							
Third Party Debt	=		50	50	50	-	-
GPV + Other Assets			120	120	120	50	30
%			42%	42%	42%	0%	0%
Economic Share:							
Funds NAV	=		60	30	30	50	30
Fund NAV + Partner NAV			60	60	60	50	30
%			100%	50%	50%	100%	100%
T1 Leverage:							
Third Party Debt x Economic Share	=	100	50	25	25	-	-
(GPV + Other Assets) x Economic Share		320	120	60	60	50	30
%		**31%**	42%	42%	42%	0%	0%
T2 Leverage Calculation							
Loan to Value:						**Lookthrough to Collateral Balance Sheet**	
Third Party Debt	=		50	50	50	-	50
GPV + Other Assets			120	120	120	120	120
%			42%	42%	42%	0%	42%
Economic Share:						**Assume Fund's Suborindated Debt is Equity**	
Funds NAV	=		60	30	30	50	30
Fund NAV + Partner NAV			60	60	60	110	60
%			100%	50%	50%	45%	50%
T2 Leverage:							
Third Party Debt x Economic Share	=	125	50	25	25	-	25
(GPV + Other Assets) x Economic Share		355	120	60	60	55	60
%		**35%**	42%	42%	42%	0%	42%

Exhibit 2 (Last Dollar Exposure Portfolio Example)

SAMPLE PORTFOLIO
LAST DOLLAR EXPOSURE METHOD

		Total	Wholly-Owned	NCI	Equity Method	Whole Loan	Mezzanine Loan
Collateral Capital Stack							
Collateral's Gross Property Value ("GPV")			100	100	100	100	100
Other assets			20	20	20	20	20
Other Liabilities			(10)	(10)	(10)	(10)	(10)
Loan to Value %:							
1st Mortgage			50%	50%	50%	0%	50%
Fund Whole Loan			0%	0%	0%	50%	0%
Fund Mezzanine			0%	0%	0%	0%	30%
Equity Split:							
Fund NAV			100%	50%	50%	0%	0%
Partner NAV			0%	50%	50%	100%	100%
Collateral Balance Sheet							
GPV			100	100	100	100	100
Other Assets			20	20	20	20	20
Other Liabilities			(10)	(10)	(10)	(10)	(10)
1st Mortgage			(50)	(50)	(50)	-	(50)
Fund Whole Loan			-	-	-	(50)	-
Fund Mezzanine Loan			-	-	-	-	(30)
Net Asset Value			60	60	60	60	30
Fund NAV			60	30	30	-	-
Partner NAV			-	30	30	60	30
Fund Balance Sheet							
Real Estate Investment		310	100	100	30	50	30
Other Assets		40	20	20	-	-	-
Other Liabilities		(20)	(10)	(10)	-	-	-
1st Mortgage		(100)	(50)	(50)	-	-	-
Fund Whole Loan		-	-	-	-	-	-
Fund Mezzanine Loan		-	-	-	-	-	-
Net Asset Value		230	60	60	30	50	30
Fund NAV		200	60	30	30	50	30
Partner NAV		30	-	30	-	-	-
T1 Leverage Calculation							
Loan to Value:							
Third Party Debt	=		50	50	50	-	-
GPV + Other Assets			120	120	120	50	30
%			42%	42%	42%	0%	0%
Economic Share:							
Funds NAV	=		60	30	30	50	30
Fund NAV + Partner NAV			60	60	60	50	30
%			100%	50%	50%	100%	100%
T1 Leverage:							
Third Party Debt x Economic Share	=	100	50	25	25	-	-
(GPV + Other Assets) x Economic Share		320	120	60	60	50	30
%		**31%**	42%	42%	42%	0%	0%
T2 Leverage Calculation							
Last Dollar Exposure (LDE):			**Lookthrough to Collateral Balance Sheet**				
Total Debt	=	280	50	50	50	50	80
GPV + Other Assets		600	120	120	120	120	120
%		47%	42%	42%	42%	42%	67%
Gearing Factor (GF)							
Third Party Debt	=	200	50	50	50	-	50
Total Debt		280	50	50	50	50	80
%		71%	100%	100%	100%	0%	63%
T2 Leverage:							
LDE x GF	=	**33%**	42%	42%	42%	0%	42%

Exhibit 3 (Joe D'Alessandro's Proposed Leverage Risk Performance Indicator)

1) Background

A. The commercial real estate investment industry desires better leverage risk measures.
B. A new statistic introduced by the NCREIF/PREA Reporting Standards is T-1 leverage, which is a refinement of the traditional Loan to Value (LTV) ratio. This is a step in the right direction as it looks at LTV from a holistic point of view.
C. Other asset classes use a risk based capital approach. The National Association of Insurance Companies (NAIC) has developed a framework using Debt Service Coverage Ratio (DSCR), LTV and historical experience adjustment factors to determine the capital reserves required to mitigate risk.
D. Risk should take into account the priorities associated with the overall capital stack.
E. Typically risk measures are based on volatility such as the most widely known Sharpe, Treynor and Information Ratio's. These ratios all share the model of "reward" divided by "risk." Each model differs in how "reward" or "excess return" and "risk" are defined.
    a. Sharpe defines excess return as the portfolio return less the risk free rate and risk as the volatility of such excess returns.
    b. Treynor defines excess return as the portfolio return less the benchmark or market return and risk as Beta or the variance from the market return.
    c. The Information Ratio defines excess return as the portfolio return less the benchmark return and risk as the standard deviation or volatility of such excess returns.

2) Proposal

A. Use the reward/risk framework of Sharpe, Treynor and Information Ratios to develop a volatility-based approach to leverage risk assessment.
B. When utilizing debt or other non-equity capital sources such as preferred equity, the risk of loss of not paying interest or dividends or not paying back original borrowings or investments is critical as well as the priorities of the capital stack.
C. From the overall portfolio perspective, we therefore need to define reward and risk.
    i) Reward or excess returns can be defined in two parts; 1) excess "cash flow" and 2) excess "appreciation". Excess cash flow and appreciation are the cushions necessary to help mitigate risk of not paying back interest or principal. Since Reward is a return measure it has its own return numerator and denominator. As shown below the return numerator is the Excess Cash Flow$ and the Excess Value Change$. The return denominator is the Average Outstanding Debt Balance.
    ii) Risk can be defined as the volatility of such "excess returns." This will be the risk denominator for the overall leverage risk indicator.
    iii) Excess Cash Flow$
        (1) The portfolio pays interest on debt and dividends on preferred equity from free cash flow from operations. For real estate, Excess Cash Flow$ can be defined as free cash flow or Net Operating Income less Interest Expense less Preferred Dividends less non-financed Capital Expenditures, generally recurring capital and not major renovations.
    iv) Excess Value Change$
        (1) The portfolio repays principal outstanding and preferred equity investments from the sale of re-financing of the investment, therefore value or price changes of the investment are critical. For real estate, Excess Value Change$ can be defined as market value change

less participating interests in value appreciation from either debt or preferred equity investments.

v) Excess Total$ is therefore the sum of the Excess Cash Flow$ and the Excess Value Change$ that make up the numerator in the Reward computation

vi) The Denominator for Reward return computation is determined as follows;

(1) To capture the proper return measure we must use the non-equity capital sources or the debt borrowed and the preferred equity invested. So the denominator for which to measure the return is the average Debt Outstanding balance plus the average Preferred Equity investments.

vii) Essentially we are calculating a "Return on Debt", not a return on equity. (Technically it is really a "Return on Non-Common Equity"). This is akin to the inverse of the debt-to-GDP ratio. The higher the Return on Debt, the better the chances of not defaulting on the debt. In other words, the higher the numerator, the less risk of loss to the lenders. Specifically the higher the Cash Flow Return, the less risk of loss of not paying interest on the debt. The higher the Value Return the less risk of loss of not re-paying the outstanding debt principal. The higher the debt outstanding, the higher the denominator, the lower the Return on Debt. So more debt outstanding is more risky and less debt outstanding is less risky. The numerator in essence captures the dynamics of the traditional Debt Service Coverage Ratio whereas the Value portion of the numerator along with the denominator captures the traditional Loan to Value Ratio.

viii) The remaining aspect is "Risk" or the denominator of the overall indicator. Following the Sharpe ratios, we would use the standard deviation of the excess returns as follows

(1) Standard deviation of the Excess Cash Flow Return and the Standard deviation of the Excess value Change Return.

(2) We would calculate each component separately

(3) We could then weight each component based on the perceived risk or possibly the strategy of the underlying investment. For example, for core investments the primary return driver is income, not appreciation. Let's say income is 90% of the total return and appreciation is 10% of the total return. We could apply that same proportion to the component risk ratios to get a weighted result.

D. Summary of the above proposed framework

i) Uses the traditional return / volatility to measure risk of leverage.

ii) Incorporates the traditional concepts of debt service coverage and loan to value ratios as well as an actual experience adjustment factor.

iii) Works from either the perspective of the borrower or lender

(1) For example if the capital stack includes a 1st mortgage, mezzanine debt, and preferred equity, the perspective of the entire portfolio would incorporate all non-common equity capital sources. For any one individual lender or investor, the excess cash flow and value change numbers would only include their positions and those senior.

iv) Formula are as follows;

(1) Excess Cash Flow Indicator

(a) $$\frac{Excess\ Cash\ Flow\ Return}{Standard\ Deviation\ of\ Excess\ Cash\ Flow\ Return}$$

(i) where;

(ii) Excess Cash flow Return is

(iii) $\frac{NOI-Interest\ Expense-Preferred\ Dividends-Non-financed\ Capital\ Expenditures}{Average\ Debt\ Outstanding\ Principal\ Balance+Preferred\ Equity\ Investments}$

(iv) Note, non-financed capital expenditures are capital expenditures that are paid with operating cash flows and not from borrowings or preferred equity investors.

(2) Excess Value Change Indicator

(a) $\frac{Excess\ Value\ Change\ Return}{Standard\ Deviation\ of\ Excess\ Value\ Change\ Return}$

(i) where;

(ii) Excess Value Change Return is

(iii) $\frac{MV_1-MV_{t-1}-Financed\ CapX-Participating\ Interests}{Average\ Debt\ Outstanding\ Principal\ Balance+Preferred\ Equity\ Investments}$

1. where;
   a. MV_1 = Market Value end of period
   b. MV_{t-1} = Market Value beginning of period
   c. Participating Interests = to the extent either lenders or preferred equity investors participate in appreciation of the underlying investment

(3) Excess Total Return Indicator

(a) $\sum\ ECFWF(ECFI), EVCWF(EVCI)$

(i) where;

(ii) ECFWF = excess cash flow weighting factor

(iii) EVCWF = excess value change weighting factor

(iv) Note that the weighting factors are subjective, but can be applied using general derivations of the component returns. For example, Core could be 90% income and 10% appreciation. Value-Add could be 50% income and 50% appreciation. Opportunistic could be 30% income and 70% appreciation.

E. Above formula could potentially be tweaked to reflect Beta in the denominator instead of standard deviation to provide a more relative measure of risk.

F. Discussion of the above is necessary amongst academics, practitioners and others interested in the topic.

G. Could be applied to future or expected returns as well.

H. Historical data testing of the above framework is critical. Preliminary testing using NPI leveraged data follows.

Exhibit 4 (Comparing Commonly Used Risk Metrics)

Comparing Commonly Used Risk Metrics

Theoretical Subordinated Debt Positions

Market Movements	
Goal Seek Amount	-11.6%

	Period 0	Tranche Thickness	Low point	High Point	Property Cap Rate	6.00%
Equity (junior)	1,500,000	12%	88%	100%	Income	777,000.00
Mezz Position	3,000,000	23%	65%	88%		
Senior Debt	8,450,000	65%	0%	65%		
Total Property Value	12,950,000					

	Period 1	Tranche Thickness	Low point	High Point	Property Cap Rate	6.79%
Equity (junior)	(0.00)	0%	100%	100%	Income	777,000.00
Mezz Position	3,000,000	26%	74%	100%		
Senior Debt	8,450,000	74%	0%	74%		
Total Property Value	11,450,000					

	Interest / income Yield	Income / Service
Equity	24.9%	373,500
Mezzanine	5.00%	150,000
Senior	3.00%	253,500

Risk Metrics for Mezz	Period 0	Period 1
LTV Levels		
High	88%	100%
Mid	77%	87%
Low	65%	74%
Thickness	23%	26%
Equity DSCR	1.93	1.93
Debt Yield	9.20%	9.20%
T2 - Sub. Risk		
Numerator	5,633,333	8,450,000
Denominator	8,633,333	11,450,000
Investment LTV	**65%**	**74%**
Goal Seek to see at what point Last Dollar Exposure is met	-11.58%	



Handbook Volume II: Research

Determining Investment Discretion

Guidance for Timberland Investment and Performance Reporting

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Overview

In order to achieve compliance with the GIPS® standards, an investment advisor organization must first define the "firm" in the context of the GIPS® standards. In making its determination, the organization may take into consideration legal, regulatory or marketing issues as well as functional or other management lines. Once the "firm" has been defined, one of the next steps is to determine whether or not the firm retains discretion in the management of each of its accounts. To the extent that the firm has discretion, composites are created for every investment strategy the firm has implemented. Within the standards, discretion refers to "investment discretion" or the firm's ability to implement its investment process for a client(s) account, not "legal discretion" which refers to the authority to manage the account. If the firm has no discretionary accounts it cannot claim GIPS® compliance.

In the context of real estate, the fact that a client may have a say in the buy or sell decision of a major asset should not necessarily preclude an investment advisor from considering the account discretionary for composite assignment purposes provided the firm feels that the client's involvement does not impede the firm's investment process. Other factors to consider when determining if an account should be considered discretionary are the extent of the firm's daily property management decision making (including the firm's authority to make capital expenditures and leasing decisions) as well as the extent to which the firm controls decisions on investment structure. These decisions would heavily impact the value of the real estate investments and the return the investment produces.

What is Discretion for the Timberland Manager?

For stock and bond investment managers, discretion is typically defined as the ability of the firm to implement its intended strategy. Client-imposed restrictions, which significantly hinder the firm from managing the account as intended, would cause the entire account or a portion of the account to be classified as non-discretionary. In other words, the resulting performance of the individual account should be attributable to the Manager and not significantly impacted by client-imposed restrictions.

The degree of discretion utilized varies across Managers, and within firms discretion can vary across accounts. Ultimately, the goal is to determine if the Manager has maintained sufficient control over the asset or whether client-imposed restrictions materially impact the ability of the Manager to manage the account as intended.

In the context of illiquid investments such as real estate and timberland investments, the buy and sell decision is not so straightforward. For example, in addition to the acquisition and disposition of timberland, timberland investment includes ongoing capital improvements such as replanting, fertilization, road construction, as well as timber sales and harvesting decisions.

In the context of timberland investments, the decision to acquire timberland, especially if it is a large transaction, is more akin to an asset allocation, or portfolio allocation decision (i.e., buy growth stocks or buy timber). The decision of when and where to harvest on a timber property, is akin to the individual "security" decision. For example, the choice by the Manager to pick harvest unit A, rather than harvest unit B, and when to sell the unit is a discretionary decision and can materially impact the income component of total return.

Similarly, the capital improvement decision provides ongoing value to the property and to the extent the Manager controls this process, the value and return impact to the property can be material.

Reviewing NCREIF Timberland Property Index return data from1987 to 2012[1] indicates that 43% of the total return is generated by accrual based fair value income return[2].Clearly, to the extent a Manager controls the harvest and sales process; they are responsible for a significant portion of, if not all of, the income return. If the Manager also has full discretion for initial acquisition decisions and any subsequent dispositions, they are clearly responsible for 100% of the total return.

For Managers that have discretion with respect to harvesting and sales, combined with an extensive role in managing the acquisition and disposition process, a significant portion of total return may be attributed to their services. Although they may not have full discretion on acquisitions or dispositions, and need client approval, to the extent the Manager has responsibility for sourcing, valuing, and managing the acquisition or disposition, the Manager may be responsible for a large percentage of total return.

Taking into account the above discussion, and drawing from the real estate section of the GIPS® standards, the following guidance may help the Manager determine if they have discretion in managing timberland portfolios.

1. Discretion:

- Clients provide capital commitments and investment with the Manager based on the Manager's stated investment strategy, and do not impede the Manager's ability to execute that strategy. For example a Manager may choose to focus on a particular region of the U.S. and target balanced age class forests for acquisition.

- All acquisition investment decisions are made by the Manager without client direction or approval, and Manager determines harvesting and capital improvements, makes all disposition decisions, and can fully implement its investment strategy.

- The Manager selects harvests units and determines the timing and volume or stumpage/log sales. Clients may approve budgets but do not direct field operations or harvesting. The planning and implementation of harvest schedules, timing of sales, and other operational objectives of the Manager may be reviewed by the Client, but are not determined by the Client.

- A Manager has some discretion on acquisitions and dispositions of timberland within the portfolio, so long as they do not exceed some agreed-upon threshold.

Conversely, absence of the above factors may indicate the Manager lacks sufficient discretion. If one or more of the following considerations characterizes the Manager's investment responsibility, it may indicate the Manager does not have investment discretion. However, all facts and circumstances should be considered in the determination of discretion:

[1] The NCREIF Timberland Property Index average income return from 1987 to 2012 is 5.49%, and total return is 12.78%, which is 43% of the total return since inception.

[2] For the NCREIF Timber Property Index, the net income return is an EBITTDA based income measure.

2. No Discretion:

- Clients or investors have decision-making authority or control over investments that significantly limits the Manager's ability to implement their investment strategy.
- Clients or investors must approve and direct all investment decisions, including acquisitions, harvest units and sales volumes, capital improvements, and dispositions.
- Acquisitions and disposition decisions are made by the client and the Manager executes these decisions under the direction of the client.

Consistent with the GIPS® standards, it is the Manager's responsibility to determine for each account and portfolio whether it considereds that account or portfolio to be discretionary or non-discretionary. Further the GIPS® standards require the disclosure of the firm's description of discretion. In addition, verification procedures require a firm to demonstrate the consistent application of the disclosed description of discretion.
Discretion for GIPS®

After evaluating their own particular circumstances within their firm and any differences between accounts, a Manager may conclude that they exercise sufficient control over investments and have discretion over the investments they manage.

A Manager may also determine that they have discretion on some accounts, but not on others. Consistent with the GIPS® standards, a Manager must include all actual fee-paying discretionary portfolios in at least one composite, but does not include nondiscretionary portfolios in any composite.

It is the responsibility of the Manager to determine, and periodically review the status of each Client account, and determine if that account is discretionary. Each firm, as part of its documentation required under the GIPS® standards, must have a written review of the discretionary status of each account-on a regular basis, or whenever there is a material change in the management of the account.



Handbook Volume II: Research

Determining Investment Discretion

Guidance for Determining Investment Discretion for Real Estate Investment Accounts

March 26, 2009
Revised: January 3, 2012

Reporting Standards council — Performance task force

The Reporting Standards Board and Council would like to thank the following individuals who participated in this project.

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Overview

In order to achieve compliance with the GIPS® standards, an investment advisor organization must first define the "firm" in the context of the GIPS® standards. In making its determination, the organization may take into consideration legal, regulatory or marketing issues as well as functional or other management lines. Once the "firm" has been defined, one of the next steps is to determine whether or not the firm retains discretion in the management of each of its accounts. To the extent that the firm has discretion, composites are created for every investment strategy the firm has implemented. Within the standards, discretion refers to "investment discretion" or the firm's ability to implement its investment process for a client(s) account, not "legal discretion" which refers to the authority to manage the account. If the firm has no discretionary accounts it cannot claim GIPS® compliance.

In the context of real estate, the fact that a client may have a say in the buy or sell decision of a major asset should not necessarily preclude an investment advisor from considering the account discretionary for composite assignment purposes provided the firm feels that the client's involvement does not impede the firm's investment process. Other factors to consider when determining if an account should be considered discretionary are the extent of the firm's daily property management decision making (including the firm's authority to make capital expenditures and leasing decisions) as well as the extent to which the firm controls decisions on investment structure. These decisions would heavily impact the value of the real estate investments and the return the investment produces.

What is discretion for the real estate manager?[1]

Under the GIPS® standards, *"Discretion is the ability of the firm to implement its intended strategy."*[2] When managing a real estate account, a firm must judge whether or not client-imposed restrictions hinder the firm's ability to implement the intended strategy for that account. "*There are degrees of discretion and not all client imposed restrictions will necessarily cause a portfolio to be non-discretionary."*[3] If a firm is presenting a performance presentation for a composite, the performance of that composite should be attributable to the investment manager's skill and ability to implement the intended investment strategy. If client-imposed restrictions do hinder strategy, it may cause the entire account to be classified as non-discretionary, and accordingly, an account deemed to be non-discretionary would be excluded from the firm's composites. Performance presentations prepared in accordance with GIPS standards present the firm's performance to prospective and existing clients through composites which reflect the firm's investment strategy and not necessarily the strategies of all its clients.

Managers of traditional stock and bond investments apply their investment strategies by making buy/sell decisions. These managers are often deemed to have exercised their investment discretion if they have the power to decide which securities are bought or sold for the account subject to the client's risk parameters. In cases where the client develops a strategy or investment allocation based on specific return parameters, but the investment manager makes the buy/sell decisions, the

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[1] CFA Institute, *Guidance Statement on Real Estate*, page 1, Adoption Date: December 29, 2010. Effective January 1, 2011
http://www.gipsstandards.org/standards/guidance/develop/pdf/gs_real_estate_clean.pdf

[2] CFA Institute, *Guidance Statement on Composite Definition (Revised)*, page 2, Adoption Date: September 28, 2010. Effective January 1, 2011
http://www.gipsstandards.org/standards/guidance/develop/pdf/gs_composite_definition_clean.pdf

[3] CFA Institute, *Guidance Statement on Composite Definition (Revised)*, page 2, Adoption Date: September 28, 2010. Effective January 1, 2011
http://www.gipsstandards.org/standards/guidance/develop/pdf/gs_composite_definition_clean.pdf

investment manager would characterize the account as discretionary. A real estate investment manager may be no different from the "traditional" investment manager with respect to determining discretion. A client may control the risk/return parameters of the account but the real estate manager may freely make "allocation" or "selection" decisions within those parameters.

The illiquid nature of the real estate assets allows the real estate investment manager additional control than that provided by buy/sell decisions alone. Investment in real estate involves many types of management decisions which can greatly impact the quality and value of the asset. Real estate investment allocation decisions usually involve property type, location and size. These decisions are similar to a portfolio manager making a decision to buy growth stocks or municipal bonds. Decisions involving which particular property to purchase and how to structure the deal (e.g., using leverage, joint venture relationships or a mezzanine debt with participation) are often akin to a stock or bond manager making security "selection" decisions. For example, the choice by the real estate manager to pick Property A, a wholly owned property with no leverage and no joint venture partner, rather than Property B, which has 50% leverage and is owned in a 60/40 partnership can be seen as choosing a less risky security (Property A) versus a more risky security (Property B). Examples of other decisions made by the real estate investment manager who has the ability to materially impact the value and return of the account include property leasing, property management or property development.

Standard real estate investment decisions add a layer of complexity to determining discretion. The real estate investment manager must consider whether or not the intended investment strategy for a specific account has been impeded by any client-imposed restrictions, and if so the account may be considered non-discretionary and must not be included in a discretionary composite. If the strategy has not been impeded, then the account must be included in a composite with any other accounts of similar strategy or restrictions. The goal of this process is to determine if the investment manager has retained enough control of the account's investment strategy to be able to take credit for the performance of the account.

What does it mean to be a discretionary account?

The GIPS Real Estate Provisions, GIPS Guidance Statement on real estate and the GIPS Handbook are important sources of guidance for real estate investment discretion.

The facts and circumstances of the manager's authority and responsibilities can and should be considered in evaluating whether the manager has discretion. In some cases, restrictions imposed by the client may attribute some decision-making authority to the client. However, if the manager retains sufficient authority and decision-making ability to allow the manager to implement its intended investment strategy, the account must be considered discretionary.

Examples of discretionary accounts/funds:

The following examples illustrate cases where the client has retained certain decision-making authority, but there is sufficient control by the manager to allow the manager to execute its investment strategy and therefore the account would likely be considered discretionary by the firm:

All acquisition investment decisions are made by the manager without client direction or approval, and the manager makes all decisions regarding: deal structure, leverage, leasing, capital improvements, dispositions, and therefore can fully implement its investment strategy. *[An example of this is a commingled fund. A commingled fund is created and marketed by a manager with specific investment objectives clearly stated in the offering materials (i.e., Private Placement Memorandums (PPM), etc.) or other investment management agreements; therefore commingled*

funds are typically discretionary. Clients make the decision as to whether or not to invest in the fund, but the manager clearly retains discretion regarding all investment strategy decisions within the manager's self-imposed investment limitations.]

Acquisition investment recommendations and disposition recommendations are made by the manager with approval by the client prior to executing the transaction(s) however; the manager retains control over property management. "*For managers that have discretion with respect to managing the property, combined with an extensive role in managing the acquisition and disposition process, a significant portion of total return may be attributed to their services. Although a manager may not have full discretion on acquisitions or dispositions, and need the client's approval, to the extent the manager has responsibility for sourcing, valuing, and managing the acquisition or disposition, the manager may be deemed to have discretion."*[4]

The manager supplies its clients with annual budgets for client approval. Clients approve budgets but control of the actual operations or leasing decisions for the property is the manager's responsibility. The planning and implementation of capital budgets, leases, and other operational objectives of the manager may be reviewed by the client, but are not determined by the client.

A manager has some discretion on acquisitions and dispositions of property investments within the portfolio, so long as the firm does not exceed some agreed-upon threshold (determined by the client).

There is a performance related compensation arrangement between the manager and the account or fund whereby the manager is judged based upon its performance to an industry benchmark. (It should be noted however, that the absence of a performance related compensation arrangement does not necessarily mean that the manager lacks discretion.)

[4] CFA Institute, *Guidance Statement on Real Estate,* page 3. Adoption Date: December 29, 2010. Effective Date: January 1, 2011.
www.gipsstandards.org/standards/guidance/develop/pdf/gs_real_estate_clean.pdf

Each firm is required to document the firm's definition of discretion and apply that definition consistently to all of its accounts. GIPS® real estate provisions require that the firm disclose its description of discretion.

Checklist for determining real estate discretion

The determination of whether an account is discretionary for compliance with the GIPs standards is a subjective determination made by the manager. This chart can be used to assist in the determination of discretion for single investor investment accounts, as commingled funds are likely to be classified as discretionary.

	Client role	Manager role
Overall account (strategy or allocation decisions)		
Timing of cash flows to/from investors		
Ongoing investment management		
Buy/sell/financing		
Transaction sourcing (including negotiating purchase/sale agreements and terms)		
Compensation		
Buy/sell/financing (selection decisions)		
Acquisition		
Disposition		
Financing/re-financing		
Ongoing investment management (investment-level decisions)		
Property manager selection		
Operating budgets		
Capital improvements		
Leasing		
Development/redevelopment		
Operations risk management (i.e., insurance, building codes, etc.)		

Notes:

This checklist provides guidance to aid the manager in its determination of discretion. Generally, within each line item, consideration should be given to such factors as: threshold levels; outsourcing; and degree of control.

The manager will need to assess the significance of any client imposed restrictions with respect to its determination of discretion. In situations where the manager has investment discretion within client-imposed limitations that do not hinder the manager's ability to implement its strategy, the account would typically be classified as discretionary.

What does it mean to be a non-discretionary account?

Absence of the above factors may indicate the manager lacks sufficient authority to implement its investment strategy. Consideration should be given to any of the following conditions which may provide evidence of client-imposed restrictions which significantly hinder the manager from managing the account and implementing its intended investment strategy:

Examples of non-discretionary accounts:

Clients have decision-making authority and control over investments.

Clients must approve and direct all investment decisions, including acquisitions, capital expenditures, leasing expenditures and dispositions.

The manager is not compensated for the performance of the investment (i.e., there is no carried interest or incentive fee arrangement). (It should be noted however, that the lack of a performance fee alone does not necessarily imply the manager lacks discretion, if the manager retains sufficient control and authority to implement the intended investment strategy.)

The primary manager out-sources key investment decision-making related functions (no internal expertise), or has no control over key services such as acquisition and/or disposition services, sourcing of deals, portfolio management, or acts solely and fundamentally as only a property manager with only limited authority over operating and investment decisions.

So, what is the final word on discretion as related to the GIPS® standards?

A key consideration within the context of compliance with GIPS® standards is the requirement to define and consistently apply the determination of discretion. In doing so, the firm must evaluate its ability to execute the firm's investment strategy for each of its accounts. These strategies include making buy/sell or operational decisions such as the use of leverage or joint venture partners, capital spending and leasing authority. If these decisions can be made by the manager- either within restrictions that do not significantly hinder the manager from implementing its strategy or without any restrictions at all- then the firm can make the determination that it has discretion for that account. The firm must objectively evaluate all accounts to determine whether each is discretionary.

One of the key conclusions from the discussion above is that the manager's ability to implement its investment strategy decisions should be the sole consideration for determining discretion. Implementing accounting or valuation policies for client reporting purposes should not have a role in the determination of investment strategy discretion. Discretion over the implementation of a particular valuation or accounting policy is not normally the discretion that should be considered under the GIPS® standards as any applicable accounting or valuation requirements under GIPS® would still need to be adhered to. Only discretion as it relates to the implementation of an investment strategy should normally be considered.

It is the responsibility of the firm to determine the status of each fund/account as to whether or not it is discretionary. Each firm, as part of its documentation required under the GIPS standards, should have a periodic written review of the discretionary status of each account, and update that report whenever there is a material change in the management of the account.

It is the firm's responsibility to determine whether it can comply with the GIPS® standards. The information here is only meant to provide guidance to the firm. For additional information, please refer to the Explanation of the Provisions of the GIPS® standards and Verification - Real Estate section of the GIPS® Handbook.

I have determined which accounts have discretion, so now how do I determine what is a real estate composite?

One of the key principles in the Standards is the presentation of composite returns, where a composite is defined as an aggregation of one or more accounts representing a particular investment objective or style. In this way, the real estate investment class and other asset classes are treated in the same manner. Composites for stock and bond investments are composed of groups of funds or accounts that have the same or similar investment strategy. Stock portfolios may invest in certain "growth/value" strategies, while real estate investment composites are often composed of accounts with similar "core/value-added/opportunistic" real estate investment strategies. Real estate composites consist of an aggregation of one or more funds or accounts that represent a particular real estate investment strategy. For example, you may have a "Core, Diversified, Single-Client Structured, Real Estate Accounts Composite" or a "Value-Added, Retail, Closed-End Real Estate Accounts Composite". Using the GIPS® "Suggested Hierarchy for Composite Definition"[5] can help the real estate investment manager to clarify composite creation for the real estate asset classes.

Can a firm create a composite that consists of individual properties drawn from various funds that reflects a property level strategy as opposed to a composite made up of funds?

Real estate consultants and clients frequently ask their investment managers for performance presentations for property level strategies, instead of the account's investment strategies that their GIPS® composites are based on. Let's say, for instance that we wanted to show a prospective client our experience in investing in office buildings. The real estate investment manager will then provide the firm's investment performance for office buildings purchased through various portfolios which have been acquired under differing portfolio-level investment strategies and risk/return parameters. The investment manager has the option to create composites comprised of particular properties that share a property-level strategy or style; these composites are called "carve out composites". So following the initial example, suppose the manager creates a "carve out" composite of all office investments made over the past five years. If this "carve out" group of office investments does not represent what would have been achieved by investing in a portfolio with a portfolio-level strategy dedicated to office investments, carving out the property level office building investment returns from portfolios with vastly different investment objectives and strategies will likely NOT satisfy the composite construction requirements of the Standards. This property level grouping should then only be presented as **SUPPLEMENTAL** to a compliant composite presentation (see the Guidance Statement on the Use of Supplemental Information).

For periods prior to January 1, 2010, the real estate investment manager could choose to create "carve out" composites by allocating cash. For periods beginning on or after January 1, 2010 a carve out must not be included in a composite unless the carve out is managed separately with its own cash balance.[6]

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[5] CFA Institute, *Guidance Statement on Composite Definition (Revised)*, page 5. Adoption Date September 28,2010. Effective January 1, 2011.
www.gipsstandards.org/standards/guidance/develop/pdf/gs_composite_definition_clean.pdf

[6] CFA Institute, *Guidance Statement on the Treatment of Carve Outs,* page 1. Adoption Date: September 28, 2010. Effective Date January 1, 2011.
http://www.gipsstandards.org/standards/guidance/develop/pdf/gs_treatment_of_carve_outs_clean.pdf

TOOLS

	Date
Open-end Fund Checklist	April 5, 2023
Closed-end Fund Checklist	April 5, 2023
Separately Managed Accounts Checklist	April 5, 2023
Debt Funds Checklist	April 5, 2023
Executive Summary	March 3, 2015
RS Supplement to the ILPA Reporting Template	July 15, 2019
Guide for Disclosures of COVID-19 Related Rent Relief	June 17, 2020
Total Global Expense Ratio (TGER) Example Disclosure & Guidance	November 5, 2021
Global AUM Calculation Tool	June 2021
RS ESG KPIs	May 5, 2022

HANDBOOK VOLUME II: TOOLS

NCREIF PREA

Reporting Standards

Updated April 5, 2023

CHECKLISTS

Open-end Fund
Closed-end Fund
Separately Managed Accounts
Debt Funds

NCREIF PREA pension real estate association

NCREIF PREA Reporting Standards: Open-end Fund Checklist

Account Report Name: _____
Account Report Date: _____

NCREIF PREA Reporting Standards Open-end Fund Checklist						
Disciplines	**Element description**	**Frequency**	**Required or recommended element**	**Handbook Reference**	**Report Name**	**Notes**
Portfolio management	Name or identifier	Quarterly	Required	PM.01		
	Contact	Quarterly	Required	PM.02		
	Inception date	Quarterly	Required	PM.03		
	Structure	Annually	Required	PM.04		
	Style and strategy	Annually	Required	PM.05		
	Portfolio diversification by: • Investment/property type • Region/location • Nature of investment (life cycle) • Investment structure	Quarterly	Required	PM.06		
	Management discussion of performance relative to objective	Quarterly	Recommended	PM.09		
Performance and Risk	Total and Component Time-Weighted Return (TWR) – Gross of Fees and Total TWR Net of Fees. Periods: quarterly, 1yr., 3yr., 5yr., 10yr., and since-inception (SI)	Quarterly	Required	PR.01		
	Disclosures accompanying TWR (modified)	Required when TWR is reported		PR.01.1-01.7		
	Benchmark comparisons	Quarterly	Required	PR.02		
	Net Asset Value	Quarterly	Required	PR.03		
	Fund Tier 1 (T1) Total Leverage-at cost	Quarterly	Required	PR.04		
	Fund T1 Leverage Percentage	Quarterly	Required	PR.05		
	Fund T1 Leverage Yield	Quarterly	Recommended	PR.14		
	Weighted average interest rate of Fund T1 Leverage	Quarterly	Recommended	PR.15		
	Weighted average remaining term of fixed-rate Fund T1 Leverage	Quarterly	Recommended	PR.16		
	Weighted average remaining term of floating rate Fund T1 Leverage	Quarterly	Recommended	PR.17		
	Redemptions for quarter	Quarterly	Recommended	PR.20		
	Total subscribed commitments	Quarterly	Recommended	PR.21		
	Total redemption requests	Quarterly	Recommended	PR.22		

NCREIF PREA Reporting Standards Open-end Fund Checklist						
Disciplines	**Element description**	**Frequency**	**Required or recommended element**	**Handbook Reference**	**Report Name**	**Notes**
	Total Global Expense Ratio (TGER)	Annually	Required	PR.23		
	Disclosures accompanying TGER	Required when TGER is reported		PR.23.1-23.4		
Asset management	Occupancy level by property type	Quarterly	Required	AM.01		
	Portfolio lease expiration statistics	Quarterly	Required	AM.02		
	Top 10 tenants	Quarterly	Recommended	AM.03		
Financial Reporting	Condensed Fair Value (FV) GAAP-based financial reporting	Quarterly	Required	FR.01		
	Fair Value (FV) GAAP-based financial statements	Annually	Required	FR.02		
	Financial statement audits	Annually	Required	FR.03		
	Schedule of investments	Annually	Required	FR.04		
Valuation	Valuation policy statement	Annually	Required	VA.01		
	Valuation policy	Required to be maintained and consistently applied		VA.02		
	Internal Valuations	Quarterly	Required	VA.03		
	External Valuations	Annually	Required	VA.04		
Compliance	Statement of Compliance	Quarterly	Recommended			

Note: Compliance Checklists have been created as quick reference guides that should be used in conjunction with and not without reference to Volume I.

Reporting Standards: Closed-end Fund Checklist

Account Report Name: _____
Account Report Date: _____

Reporting Standards Closed-end Fund Checklist						
Disciplines	**Element description**	**Frequency**	**Required or recommended element**	**Handbook Reference**	**Report Name**	**Notes**
Portfolio management	Name or identifier	Quarterly	Required	PM.01		
	Contact	Quarterly	Required	PM.02		
	Inception date	Quarterly	Required	PM.03		
	Structure	Annually	Required	PM.04		
	Style and strategy	Annually	Required	PM.05		
	Portfolio diversification by: • Investment/property type • Region/location • Nature of Investment (life cycle) • Investment structure	Quarterly	Required	PM.06		
	Final closing date	Annually	Required	PM.07		
	Scheduled termination date	Annually	Required	PM.08		
	Management discussion of performance relative to objective	Quarterly	Recommended	PM.09		
Performance and risk	Total and Component Time-Weighted Return (TWR) – Gross of Fees and Total TWR Net of Fees. Periods: quarterly, 1yr., 3yr., 5yr., 10yr., and since-inception (SI)	As requested by investor		PR.01		
	Disclosures accompanying TWR	Required when TWR is reported		PR.01.1-01.7		
	Benchmark comparisons	Quarterly	Required	PR.02		
	Net Asset Value	Quarterly	Required	PR.03		
	Fund Tier 1 (T1) Total Leverage-at cost	Quarterly	Required	PR.04		
	Fund T1 Leverage Percentage	Quarterly	Required	PR.05		
	Since-inception Internal Rate of Return (IRR) – Gross and Net of Fees	Quarterly	Required	PR.06		
	Disclosures accompanying IRR	Required when IRR is reported		PR.06.1-06.5		
	Paid in Capital Multiple	Quarterly	Required	PR.07		
	Investment Multiple	Quarterly	Required	PR.08		
	Realization Multiple	Quarterly	Required	PR.09		
	Residual Multiple	Quarterly	Required	PR.10		
	Distributions since-inception	Quarterly	Required	PR.11		
	Aggregate Capital Commitments	Quarterly	Required	PR.12		
	Since-inception paid-in capital	Quarterly	Required	PR.13		
	Fund T1 Leverage Yield	Quarterly	Recommended	PR.14		

Reporting Standards Closed-end Fund Checklist						
Disciplines	**Element description**	**Frequency**	**Required or recommended element**	**Handbook Reference**	**Report Name**	**Notes**
	Weighted average interest rate of Fund T1 Leverage	Quarterly	Recommended	PR.15		
	Weighted average remaining term of fixed-rate Fund T1 Leverage	Quarterly	Recommended	PR.16		
	Weighted average remaining term of floating rate Fund T1 Leverage	Quarterly	Recommended	PR.17		
	Unfunded commitments	Quarterly	Recommended	PR.19		
	Total Global Expense Ratio (TGER)	Annually	Required for Funds formed in 2020 and beyond	PR.23		
	Disclosures accompanying TGER	Required when TGER is reported		PR.23.1-23.4		
Asset management	Occupancy level by property type	Quarterly	Required	AM.01		
	Portfolio lease expiration statistics	Quarterly	Required	AM.02		
	Top 10 tenants	Quarterly	Recommended	AM.03		
Financial Reporting	Condensed Fair Value (FV) GAAP-based financial reporting	Quarterly	Required	FR.01		
	Fair Value (FV) GAAP-based financial statements	Annually	Required	FR.02		
	Financial statement audits	Annually	Required	FR.03		
	Schedule of investments	Annually	Required	FR.04		
Valuation	Valuation policy statement	Annually	Required	VA.01		
	Valuation policy	Required to be maintained and consistently applied		VA.02		
	Internal Valuations	Quarterly	Required	VA.03		
	External Valuations	As provided in governance agreements		VA.05		
Compliance	Statement of Compliance	Quarterly	Recommended			

Note: Compliance Checklists have been created as quick reference guides that should be used in conjunction with and not without reference to Volume I.

Reporting Standards: Separately Managed Accounts Checklist

Account Report Name: _____
Account Report Date: _____

Reporting Standards Separately Managed Accounts Checklist						
Disciplines	**Element description**	**Frequency**	**Required or recommended element**	**Handbook Reference**	**Report Name**	**Notes**
Portfolio management	Name or identifier	Quarterly	Required	PM.01		
	Contact	Quarterly	Required	PM.02		
	Inception date	Quarterly	Required	PM.03		
	Structure	Annually	Required	PM.04		
	Style and strategy	Annually	Required	PM.05		
	Portfolio diversification by: • Investment/property type • Region/location • Nature of investment (life cycle) • Investment structure	Quarterly	Required	PM.06		
	Management discussion of performance relative to objective	Quarterly	Recommended	PM.09		
Performance and Risk	Total and Component Time-Weighted Return (TWR) - Gross of Fees and Total TWR Net of Fees. Periods: quarterly, 1yr., 3yr., 5yr., 10yr., and since-inception (SI)	Quarterly	Recommended	PR.01		
	Disclosures accompanying TWR	Required when TWR is reported		PR.01.1-01.7		
	Benchmark comparisons	Quarterly	Required	PR.02		
	Net Asset Value	Quarterly	Required	PR.03		
	Fund Tier 1 (T1) Total Leverage-at cost	Quarterly	Required	PR.04		
	Fund T1 Leverage Percentage	Quarterly	Required	PR.05		
	Since-inception Internal Rate of Return (IRR) - Gross and Net of fees	Quarterly	Recommended	PR.06		
	Disclosures accompanying IRR	Required when IRR is reported		PR.06.1-06.5		
	Fund T1 Leverage Yield	Quarterly	Recommended	PR.14		
	Weighted average interest rate of Fund T1 Leverage	Quarterly	Recommended	PR.15		
	Weighted average remaining term of fixed-rate Fund T1 Leverage	Quarterly	Recommended	PR.16		
	Weighted average remaining term of floating rate Fund T1 Leverage	Quarterly	Recommended	PR.17		

Reporting Standards Separately Managed Accounts Checklist						
Disciplines	**Element description**	**Frequency**	**Required or recommended element**	**Handbook Reference**	**Report Name**	**Notes**
Asset management	Occupancy level by property type	Quarterly	Required	AM.01		
	Portfolio lease expiration statistics	Quarterly	Required	AM.02		
	Top 10 tenants	Quarterly	Recommended	AM.03		
Financial Reporting	Condensed Fair Value (FV) GAAP-based financial reporting	Quarterly	Required	FR.01		
	Fair Value (FV) GAAP-based financial statements	Annually	Required	FR.02		
	Financial statement audits	Annually	Required	FR.03		
	Schedule of investments	Annually	Required	FR.04		
Valuation	Valuation policy statement	Annually	Required	VA.01		
	Valuation policy	Required to be maintained and consistently applied		VA.02		
	Internal Valuations	Quarterly	Required			
	External Valuations	As provided in governance agreements		VA.05		
	External Valuations	Once every three years minimum	Recommended	VA.06		
Compliance	Statement of Compliance	Quarterly	Recommended			

Note: Compliance Checklists have been created as quick reference guides that should be used in conjunction with and not without reference to Volume I.

Reporting Standards: Debt Funds Checklist

Account Report Name: _____
Account Report Date: _____

Reporting Standards – Debt Funds Checklist							
Disciplines	**Element description**	**Frequency**	**Required or recommended element**	**Applicable account type**	**Reference**	**Report Name**	**Notes**
Portfolio management	Name or identifier	Quarterly	Required	All	PM.01		
	Contact	Quarterly	Required	All	PM.02		
	Inception date	Quarterly	Required	All	PM.03		
	Structure	Annually	Required	All	PM.04		
	Style and strategy	Annually	Required	All	PM.05		
	Portfolio diversification by: • Investment/property type • Region/location • Nature of investment (life cycle) • Debt type • Interest rate type	Quarterly	Required	All	PM.06		
	Final closing date	Annually	Required	Closed-end	PM.07		
	Scheduled termination date	Annually	Required	Closed-end	PM.08		
	Management discussion of performance relative to objective	Quarterly	Recommended	All	PM.09		
Performance and Risk	Total and Component Time-Weighted Return (TWR) – Gross of Fees and Total TWR Net of Fees. Periods: quarterly, 1 yr., 3yr., 5yr., 10yr., and since-inception (SI)	Quarterly	Required	Open-end	PR.01		
	Total and Component Time-Weighted Return (TWR) – Gross of Fees and Total TWR Net of Fees. Periods: quarterly, 1 yr., 3yr., 5yr., 10yr., and since-inception (SI)	As requested by investor		Closed-end	PR.01		
	Total and Component Time-Weighted Return (TWR) – Gross of Fees and Total TWR Net of Fees. Periods: quarterly, 1 yr., 3yr., 5yr., 10yr., and since-inception (SI)	As requested by investor		SMA	PR.01		
	Disclosures accompanying TWR	Required when TWR is reported		All	PR.01.1-01.7		
	Net Asset Value	Quarterly	Required	All	PR.03		
	Fund Tier 1 (T1) Total Leverage – at cost	Quarterly	Required	All	PR.04		
	Fund T1 Leverage Percentage	Quarterly	Required	All	PR.05		
	Since-inception Internal Rate of Return (IRR) - Gross and Net of fees	Quarterly	Required	Closed-end	PR.06		
	Since-inception Internal Rate of Return (IRR) - Gross and Net of fees	As requested by investor		SMA	PR.06		
	Disclosures accompanying IRR	Required when IRR is reported		All	PR.06.1-06.5		
	Paid-in capital multiple	Quarterly	Recommended	Closed-end	PR.07		
	Investment multiple	Quarterly	Recommended	Closed-end	PR.08		
	Since-inception paid-in capital	Quarterly	Required	Closed-end	PR.13		
	Weighted average interest rate of Fund T1 Leverage	Quarterly	Recommended	All	PR.15		
	Weighted average remaining term of fixed-rate Fund T1 Leverage	Quarterly	Recommended	All	PR.16		
	Weighted average remaining term of floating rate Fund T1 Leverage	Quarterly	Recommended	All	PR.17		
	Unfunded commitments	Quarterly	Recommended	Closed-end	PR.19		

Reporting Standards – Debt Funds Checklist							
Disciplines	**Element description**	**Frequency**	**Required or recommended element**	**Applicable account type**	**Reference**	**Report Name**	**Notes**
	Redemptions for quarter	Quarterly	Recommended	Open-end	PR.20		
	Total subscribed commitments	Quarterly	Recommended	Open-end	PR.21		
	Total redemption requests	Quarterly	Recommended	Open-end	PR.22		
	Total Global Expense Ratio (TGER)	Annually	Recommended in 2023, Required in 2024 and beyond	Open-end and Closed-end	PR.23		
	Disclosures accompanying TGER	Required when TGER is reported			PR.23.1-23.4		
	Financial leverage ratio	Quarterly	Recommended	All	PR.24		
	Distribution yield	Quarterly	Recommended	Open-end	PR.25		
Asset management	Loan to value or loan to cost	Quarterly	Required	All	AM.04		
	Weighted average interest rate	Quarterly	Recommended	All	AM.05		
	Debt yield	Quarterly	Recommended	All	AM.06		
	Debt service coverage ratio	Quarterly	Recommended	All	AM.07		
Financial Reporting	Condensed Fair Value (FV) GAAP-based financial reporting	Quarterly	Required	All	FR.01		
	Fair Value (FV) GAAP-based financial statements	Annually	Required	All	FR.02		
	Financial statement audits	Annually	Required	All	FR.03		
	Schedule of Investments	Annually	Required	All	FR.04		
Valuation	Valuation policy statement	Annually	Required	All	VA.01		
	Valuation policy	Required to be maintained and consistently applied		All	VA.02		
	Internal valuations	Quarterly	Required	All	VA.03		
	External valuation of collateral at origination	One-time	Recommended	All	VA.07		
Compliance	Statement of Compliance	Quarterly	Recommended	All			

Note: Compliance Checklists have been created as quick reference guides that should be used in conjunction with and not without reference to Volume I.

HANDBOOK VOLUME II: TOOLS



NCREIF PREA

Reporting Standards

March 3, 2015

EXECUTIVE SUMMARY

NCREIF pension real estate association PREA

NCREIF PREA Reporting Standards Executive Summary Fund Template

Objectives

Investors have reported their desire to receive consistent, comparable and uniform summary information on all of their real estate funds (commingled and single client accounts) quarterly. The NCREIF PREA Reporting Standards Executive Summary Fund Template develops a uniform summary of pertinent information contained within a Reporting Standards compliant report as welll as other information as determined through working sessions with a representative sample of users and preparers of investment reporting. This template is recommended to be utilized for all types of funds and is at the Fund Level of reporting. The template is not a substitute for a Reporting Standards compliant report.

NCREIF PREA REPORTING STANDARDS EXECUTIVE SUMMARY FUND TEMPLATE

Quarterly "Investment Name" Summary (PM.01)

Data as of

RS Reference	Fund Information: (All Funds)		
PM.04	Structure		
PM.05	Style and Strategy		
PR.12	Total Commitments	$	
PR.13	Total Capital Called to date (Since Inception Paid in Capital)	$	% Called
PM.03, Note 1*	Fund Inception Date and Planned Liquidation Date		
Note 3*	End of Fund Investment Period		
Note 2*	Investment Management Fees for Quarter	$	
PR.18	Real Estate Fees and Expenses Ratio (REFER)	%	
FR.04	Number of Investments as listed in Schedule of Investments		
Note 2*	Cash	$	
PR.04	Gross Asset Value	$	
PR.03	Net Asset Value	$	

RS Reference	Leverage Information: (All Funds)	
PR.04	Fund Tier 1 (T1) Total Leverage	$
PR.05	Fund Tier 1 (T1) Leverage Percentage	%
PR.15	Weighted Average interest rate of Fund T1 Leverage	%
PR.16	Weighted Average remaining term of fixed rate Fund T1 Leverage	
PR.17	Weighted Average remaining term of floating rate Fund T1 Leverage	
Notes 3 and 4*	Recourse Debt	%

RS Reference	Performance Metrics - Time Weighted Returns (All Funds)					
		Quarter	1 Yr.	3 yr.	5 Yr.	Since Incep.
PR.01	Income (Gross)	%	%	%	%	%
PR.01	Appreciation	%	%	%	%	%
PR.01	Total (Gross)	%	%	%	%	%
PR.02	Total (Net)	%	%	%	%	%
PR.02	Benchmark Index (Total) - Name	%	%	%	%	%

RS Reference	Performance Metrics for Closed-end Funds				
PR.06	IRR Since Inception - Gross of fees				0.0%
PR.06	IRR Since Inception - Net of fees				0.0%
Note 5*	Original Return Objective	Gross		Net	
Note 5*	Projected IRR- Gross of fees				0.0%
Note 5*	Projected IRR- Net of fees				0.0%
		Realization Multiple (Realized)		Residual Multiple (Unrealized)	
PR.08, PR.09, PR.10	Investment Multiple Since Inception	0.0x PR.09		0.0x PR.10	
PR.11	Distributions since inception				$

RS Reference	Portfolio Management (All Funds)
Note 3*	Two Largest Performance Contributors
Note 3*	Two Largest Performance Detractors

RS Reference	Fund Manager Contact
PM.02	Manager Name
PM.02	Investment Manager Firm Name
PM.02	Phone Number
PM.02	E-mail Address

Note 1

The planned liquidation date for the Fund is generally described in the offering documents (or private placement memorandum)

Note 2

This amount can be found in the financial statements. More information can be found in the RS Standards FR.01 and FR.02 and the RS Fair Value Accounting Policy Manual

Note 3

Such elements are not currently part of the recommended or required Reporting Standards.

Note 4

Recourse debt refers to a legal agreement by which the lender has the legal right to collect pledged collateral in the event that the borrower is unable to satisfy the debt obligations. Recourse lending provides protection to lenders, as they are assured to have some sort of repayment-either cash or liquid assets. Traditionally, companies that issue recourse debt have a lower cost of capital, as there is less underlying risk in lending to that firm.

There are varying levels of recourse. For example, different loans may involve full recourse, partial recourse, "springing

HANDBOOK VOLUME II: TOOLS

NCREIF PREA

Reporting Standards

Issued	July 15, 2019

RS SUPPLEMENT TO THE ILPA REPORTING TEMPLATE

NCREIF pension real estate association PREA

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NCREIF PREA Reporting Standards

RS Supplement to the ILPA Reporting Template

To ensure the Template focuses on efficiently meeting the needs of a diverse LP community, a two-tiered structure has been incorporated into the Template. Level 1 data represents high-level summary conten provided by GPs to LPs upon request. Level 2 data introduces additional granularity and itemization for certain subtotals, i.e., fees subject to offset and partnership expenses, and fees/reimbursements received from underlying investments. The more-detailed Level 2 content is represented in the RS Supplemental(ILPA-RS Level2).

The following table highlights the key differences between the data points captured by Level 1 and Level 2 information in the Template.

See Reporting Template(ILPA Level1) and Definitions (ILPA)	See RS Supplemental(ILPA-RS Level2), RS Fee and Cost Matrix, and Definitions (GDD)

ILPA-RS Reporting Template Instructions

I. Input data on the following tabs

FIRST:

Reporting Template (General).

General Information. This is to collect basic information about the Firm, the Fund, and other relevant information .

ACTION: Input data in **blue**. Column E notes the function of each row.

ILPA Reporting Template (Level 1).

Section A. Level 1 Only. The ability to monitor, aggregate and analyze an LP's direct costs of participating in a given private equity real estate fund (a "Fund"). These values are presented within the framework of a typical partners' capital account statement, providing valuable context to the reported fees.

No data inputs are required on this tab. Note that data shown in **green** is pulled from the RS Supplemental (ILPA-RS Level 2) tab. Column N notes the function of each row.

Section B. A summary of the GP's sources of economics (GP and affiliates, related parties) regarding the Fund and the investments made by the Fund (including reimbursements and any fees not subject to offset).

Note that data shown in **green** is pulled from the RS Supplemental (ILPA-RS Level 2) tab.

SECOND:

RS Supplemental (ILPA-RS Level 2).

Section A. Supplement. Specific to RS. Total Management Fees & Partnership Expenses, Net of Offsets & Rebates, Gross of Fee Waiver. Numerator for Total Global Expense Ration (TGER).

ACTION: Input data in **blue**. Note that data entered in this tab is summarized and linked in **green** on the ILPA Reporting Template (Level 1) tab. Column O notes the function of each row.

Section B. Supplement. Specific to RS. Total Received by the GP & Related Parties. Useful reference of what is included in the Related Party Footnote Disclosure.

ACTION: Input data in **blue**. Note that data entered in this tab is summarized and linked in **green** on the ILPA Reporting Template (Level 1) tab. Column O notes the function of each row.

Please note that the ILPA-RS Level 2 is not intended to map to ILPA Level 2. ILPA-RS Level 2 is specific to real estate investments. ILPA Level 2 applies to other investment holdings.

II. Review suggested guidance and definitions:

Institutional Limited Partners Association ("ILPA") Reporting Template.

ACTION: Review ILPA Guidance here: https://ilpa.org/reporting-template/get-template/

Real Estate Global Definitions Database, sponsored by INREV, ANREV, PREA and NCREIF

ACTION: Search real estate definitions here: https://www.inrev.org/definitions/

III. Follow the Reporting Standards

RS NCREIF PREA Reporting Standards

ACTION: Review what's new with RS here: https://reportingstandards.info/

ACTION: Follow RS on LinkedIn here: https://www.linkedin.com/company/ncreif-prea-reporting-standards/

ILPA-RS REPORTING TEMPLATE
Contacts and General Fund Information

		Calendar Quarter End:	**12/31/2018**
1. Complete the blue fields on this page:			
		Fund Gross Asset Value (GAV) as of Calendar Quarter End (in millions)	500
Fund Name:	[Enter the Name of your Fund Here, i.e. Best Practices Real Estate Fund II]	LP # Ownership %:	10%
Firm Name:	[Enter the Name of your Firm Here]	Inception Start:	3/31/2010
Prepared by:	[Enter the Preparers Name Here]	Current Year Start:	1/1/2018
E-mail address:	[Enter the Preparers E-mail Here]	Current Period Start:	10/1/2018
Prepared for:	[Enter the Limited Partner Name Here]	Period End:	12/31/2018
LP#:	[Enter the Limited Partner # Here]	*Below data is for user ease of reference, only. No calcs.*	
		Fund Structure:	
		Open-End/Evergreen	Yes/No
		Closed-end, and if yes complete b	Yes/No
		1st Sub Line Draw:	7/2/2010
		1st Capital Call:	2/25/2011
		Final Close Date:	12/31/2012
		Inv Period End Date:	12/31/2016
		Management Fee:	
		Inside Commitment	Yes/No
		Outside/On top of Commitment	Yes/No
		Below data is for user ease of reference, only. No calcs.	
		LP Specific	
		Mgmt fee rate IP	1%
		Mgmt fee basis	Cmtd/Invstd
		Mgmt fee post IP	1%
		Mgmt fee basis	Invested/NAV
		Preferred return	10%
		Waterfall	pooled/deal
		Catchup	50/50
		Promote split	90/10

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ILPA-RS *Reporting Template (v. x.x) - This packet was last updated to add a tab for real estate, on 05.08.2019*

	[Enter the Name of your Fund Here, i.e. Best Practices Real Estate Fund II]			**QTD** (Oct-18 - Dec-18)	**YTD** (Jan-18 - Dec-18)	**Since Inception** (Mar-10 - Dec-18)	**QTD** (Oct-18 - Dec-18)	**YTD** (Jan-18 - Dec-18)	**Since Inception** (Mar-10 - Dec-18)	**QTD** (Oct-18 - Dec-18)	**YTD** (Jan-18 - Dec-18)	**Since Inception** (Mar-10 - Dec-18)	Row Contains Formulas Row Contains Formulas	
	A. Capital Account Statement for LP #5													
	A.1 NAV Reconciliation and Summary of Fees, Expenses & Incentive Allocation			***LP #5's Allocation of Total Fund***			***Total Fund (incl. GP Allocation)***			***GP's Allocation of Total Fund***				
	Beginning NAV - Net of Incentive Allocation			**45,067,000**	**38,196,000**	**-**	**2,495,281,787**	**2,163,081,300**	**-**	**339,194,377**	**276,104,050**	**-**	Row Contains Link	
	Contributions - Cash & Non-Cash			-	5,000,000	35,000,000	-	250,375,000	1,752,625,000	-	375,000	2,625,000	Row Contains Link	
	Distributions - Cash & Non-Cash (input positive values)			1,250,000	5,000,000	19,000,000	62,593,750	250,375,000	1,452,175,000	2,593,750	12,875,000	77,175,000	Row Contains Link	
	Total Cash / Non-Cash Flows (contributions, less distributions)			**(1,250,000)**	**-**	**16,000,000**	**(62,593,750)**	**-**	**300,450,000**	**(2,593,750)**	**(12,500,000)**	**(74,550,000)**	Row Contains Formulas	
	Net Investment Income (Expense):													
	(Management Fees – Gross of Offsets, Waivers & Rebates):			(187,500)	(750,000)	(6,625,000)	(9,375,000)	(37,500,000)	(331,250,000)	-	-	-	Row Contains Link	
	Management Fee Rebate			-	-	-	-	-	-	-	-	-	Row Contains Link	
	(Partnership Expenses - Total):			(48,000)	(154,780)	(548,429)	(2,328,750)	(4,985,053)	(25,072,055)	-	-	-	Row Contains Link	
	Total Offsets to Fees & Expenses (applied during period):			82,600	346,500	1,538,521	4,140,600	19,227,400	82,424,249	-	-	-	Row Contains Link	
	(Total Management Fees & Partnership Expenses, Net of Offsets & Rebates, Gross of Fee Waiver)			**(152,900)**	**(558,280)**	**(5,634,908)**	**(7,563,150)**	**(23,257,653)**	**(273,897,806)**	**-**	**-**	**-**	Row Contains Formulas	
	Fee Waiver			-	7,500	25,000	-	375,000	1,250,000	-	-	-	Row Contains Link	
	Interest Income			500	1,000	10,000	25,038	50,075	500,750	38	75	750	Row Contains Link	
	Property Income/Distributions, Dividend Income			10,000	32,380	233,508	500,750	2,503,750	17,030,000	750	3,750	30,000	Row Contains Link	
	(Interest Expense)			(2,000)	(8,000)	(40,000)	(100,150)	(400,600)	(2,003,000)	(150)	(600)	(3,000)	Row Contains Link	
	Other Income/(Expense)+			1,000	3,000	20,000	50,075	150,225	1,001,500	75	225	1,500	Row Contains Link	
	Total Net Investment Income (Expense)			**(143,400)**	**(522,400)**	**(5,386,400)**	**(7,087,438)**	**(20,579,203)**	**(256,118,556)**	**713**	**3,450**	**29,250**	Row Contains Formulas	
	(Placement Fees)			-	-	(40,000)	-	-	(2,000,000)	-	-	-	Row Contains Link	
	Realized Gain / (Loss)			1,000,000	3,000,000	15,100,000	50,075,000	145,392,253	887,937,906	2,575,000	12,725,000	175,728,250	Row Contains Link	
	Change in Unrealized Gain / (Loss)			1,000,000	5,000,000	20,000,000	62,593,750	250,375,000	1,608,000,000	12,531,160	75,375,000	250,500,000	Row Contains Link	
	Ending NAV - Net of Incentive Allocation			**45,673,600**	**45,673,600**	**45,673,600**	**2,538,269,350**	**2,538,269,350**	**2,538,269,350**	**351,707,500**	**351,707,500**	**351,707,500**	Row Contains Formulas	
	Reconciliation for Accrued Incentive Allocation	Accrued Incentive Allocation - Starting Period Balance		(4,750,000)	(3,750,000)	-	-	-	-	337,500,000	275,000,000	-	Row Contains Link	
		Incentive Allocation - Paid During the Period		50,000	250,000	1,250,000	-	-	-	(2,500,000)	(12,500,000)	(75,000,000)	Row Contains Link	
		Accrued Incentive Allocation - Periodic Change		(300,000)	(1,500,000)	(6,250,000)	-	-	-	15,000,000	87,500,000	425,000,000	Row Contains Link	
		Accrued Incentive Allocation - Ending Period Balance		**(5,000,000)**	**(5,000,000)**	**(5,000,000)**	**-**	**-**	**-**	**350,000,000**	**350,000,000**	**350,000,000**	**Row Contains Formulas**	
		Ending NAV - Gross of Accrued Incentive Allocation		**50,673,600**	**50,673,600**	**50,673,600**	**2,538,269,350**	**2,538,269,350**	**2,538,269,350**	**1,707,500**	**1,707,500**	**1,707,500**	**Row Contains Formulas**	
				-	-	-	-	-	-	-	-	-	*check figures should be zero*	

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ILPA-RS *Reporting Template (v. x.x) - This packet was last updated to add a tab for real estate, on 05.08.2019*

		QTD (Oct-18 - Dec-18)	YTD (Jan-18 - Dec-18)	Since Inception (Mar-10 - Dec-18)	QTD (Oct-18 - Dec-18)	YTD (Jan-18 - Dec-18)	Since Inception (Mar-10 - Dec-18)	QTD (Oct-18 - Dec-18)	YTD (Jan-18 - Dec-18)	Since Inception (Mar-10 - Dec-18)	
	[Enter the Name of your Fund Here, i.e. Best Practices Real Estate Fund II]										Row Contains Formulas
											Row Contains Formulas
	A.2 Commitment Reconciliation:	***LP #5's Allocation of Total Fund***			***Total Fund (incl. GP Allocation)***			***GP's Allocation of Total Fund***			
	Total Commitment	**50,000,000**	**50,000,000**	**50,000,000**	**2,503,750,000**	**2,503,750,000**	**2,503,750,000**	**3,750,000**	**3,750,000**	**3,750,000**	Row Contains Link
	Beginning Unfunded Commitment:	**18,500,000**	**23,500,000**	**50,000,000**	**926,387,500**	**1,176,762,500**	**2,503,750,000**	**1,387,500**	**1,762,500**	**3,750,000**	Row Contains Link
	(Less Contributions)	**-**	**(5,000,000)**	**(35,000,000)**	**-**	**(250,375,000)**	**(1,752,625,000)**	**-**	**(375,000)**	**(2,625,000)**	Row Contains Link
	Plus Recallable Distributions	**-**	**-**	**4,000,000**	**-**	**-**	**200,300,000**	**-**	**-**	**300,000**	Row Contains Link
	(Less Expired/Released Commitments)	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	Row Contains Link
	+/- Other Unfunded Adjustment	**-**	**-**	**(500,000)**	**-**	**-**	**(25,037,500)**	**-**	**-**	**(37,500)**	Row Contains Link
	Ending Unfunded Commitment	**18,500,000**	**18,500,000**	**18,500,000**	**926,387,500**	**926,387,500**	**926,387,500**	**1,387,500**	**1,387,500**	**1,387,500**	Row Contains Link
	A.3 Miscellaneous**:	***LP #5's Allocation of Total Fund***			***Total Fund (incl. GP Allocation)***			***GP's Allocation of Total Fund***			
	Incentive Allocation - Earned (period-end balance)****	1,250,000	1,250,000	1,250,000	-	-	-	75,000,000	75,000,000	75,000,000	Row Contains Link
	Incentive Allocation - Amount Held in Escrow (period-end balance)****	250,000	250,000	250,000	-	-	-	15,000,000	15,000,000	15,000,000	Row Contains Link
	Returned Clawback****	-	-	-	-	-	-	-	-	-	Row Contains Link
	Capitalized Transaction Fees & Exp. - Costs Paid to Third Parties****	50,000	200,000	1,000,000	2,503,750	10,015,000	50,075,000				Row Contains Link
	Distributions Relating to Fees & Expenses****	2,500	10,000	58,000	125,188	500,750	2,904,350				Row Contains Link
	Fund of Funds: Gross Fees, Exp. & Incentive Allocation paid to the Underlying Funds****	-	-	-	-	-	-				Row Contains Link
	B. Schedule of Fees, Incentive Allocation & Reimbursements Received by the GP & Related Parties, with Respect to the Fund and Underlying Property/Investments Held by the Fund										
	B.1 Source Allocation:	***LP #5's Allocation of Total Fund***			***Cumulative LPs' Allocation of Total Fund***			***Affiliated Positions******			
	With Respect to the Fund's LPs — Management Fees - Net of Rebates, Gross of Offsets and Waivers	187,500	750,000	6,625,000	9,375,000	37,500,000	331,250,000				Row Contains Formulas
	Partnership Expenses - Paid to GP & Related Parties - Gross of Offsets	1,000	4,000	30,000	50,075	200,300	1,502,250				Row Contains Link
	(Less Total Offsets to Fees & Expenses - applied during period)	(82,600)	(346,500)	(1,538,521)	(4,140,600)	(19,227,400)	(82,424,249)				Row Contains Formulas
	Capitalized Transaction Fees & Exp. - Paid to GP & Related Parties****	-	-	-	-	-	-				Row Contains Link
	Accrued Incentive Allocation - Periodic Change	300,000	1,500,000	6,250,000	15,000,000	87,500,000	425,000,000				Row Contains Formulas
	With Respect to the Fund's Underlying Properties/ Invs. — Total Fees with Respect to Underlying Properties/Investments:	80,600	350,500	1,611,277	3,792,500	17,475,000	86,164,062	947,225	4,342,500	21,334,765	Row Contains Link
	Total Reimbursements for Travel & Administrative Expenses****	5,000	15,000	62,200	200,000	600,000	248,800	8,000	19,500	88,500	Row Contains Link
	Total Received by the GP & Related Parties	**491,500**	**2,273,000**	**13,039,956**	**24,276,975**	**124,047,900**	**761,740,863**	**955,225**	**4,362,000**	**21,423,265**	Row Contains Formulas

*Current offset percentages for the specific LP; As offset calculations may change over the life of the Fund, the current offset percentages may not be applicable for calculating the non-QTD offset balances

**Content in A.3 aims to provide users with additional context on the balances provided in other sections; Some of the balances in A.3 represent a sub-total for an amount provided in another section; Balances in this section should be entered as a positive amount, even though similar balances in other sections may typically be presented as a negative amount; To prevent double-counting, or other miscalculations, users should avoid netting balances in A.3 with amounts in other sections

***Balances in this section represent fees & reimbursements received by the GP/Manager/Related Parties with respect to the Fund's investments that are not allocable to the Total Fund (i.e. allocated to ownership interests of LP co-investors & other vehicles managed-by/affiliated-with the GP/Manager/Related Party); To avoid double-counting, LP # 5's Allocation of Total Fund should not reflect any pro-rata share of these positions; Balances in this section, plus the balances in the "Cumulative LPs' Allocation of Total Fund" section, should equal the total fees/reimbursements received by the GP/Manager/Related Parties With Respect to the Fund's Portfolio Companies/Invs.

****Allocation for individual LPs, the Total Fund and all remaining positions may need to be estimated on a pro-rata basis

^A description should be provided in the footnote section for any amount(s) listed in this row for the year-to-date period

Footnotes for any YTD (Total Fund) expenses, fees & offsets (including any "other" balances)

Partnership Expenses – Other ($10,500) = Insurance ($8,000) + Partnership-Level Taxes ($2,500)

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[Enter the Name of your Fund Here, i.e. Best Practices Real Estate Fund II]	*LP #5's Allocation of Total Fund*			*Total Fund (incl. GP Allocation)*			*GP's Allocation of Total Fund*		
	QTD (Oct-18 - Dec-18)	YTD (Jan-18 - Dec-18)	Since Inception (Mar-10 - Dec-18)	QTD (Oct-18 - Dec-18)	YTD (Jan-18 - Dec-18)	Since Inception (Mar-10 - Dec-18)	QTD (Oct-18 - Dec-18)	YTD (Jan-18 - Dec-18)	Since Inception (Mar-10 - Dec-18)

A. Capital Account Statement for LP #5

A.1 NAV Reconciliation and Summary of Fees, Expenses & Incentive Allocation	*LP #5's Allocation of Total Fund*			*Total Fund (incl. GP Allocation)*			*GP's Allocation of Total Fund*		
Beginning NAV - Net of Incentive Allocation	**45,067,000**	**38,196,000**	**-**	**2,495,281,787**	**2,163,081,300**	**-**	**339,194,377**	**276,104,050**	**-**
Contributions - Cash & Non-Cash	-	5,000,000	35,000,000	-	250,375,000	1,752,625,000	-	375,000	2,625,000
Distributions - Cash & Non-Cash (input positive values)	1,250,000	5,000,000	19,000,000	62,593,750	250,375,000	1,452,175,000	2,593,750	12,875,000	77,175,000
Total Cash / Non-Cash Flows (contributions, less distributions)	**(1,250,000)**	**-**	**16,000,000**	**(62,593,750)**	**-**	**300,450,000**	**(2,593,750)**	**(12,500,000)**	**(74,550,000)**
Net Investment Income-RE:									
(Management Fees – Gross of Offsets, Waivers & Rebates):	**(187,500)**	**(750,000)**	**(6,625,000)**	**(9,375,000)**	**(37,500,000)**	**(331,250,000)**	**-**	**-**	**-**
(Management Fees - Ongoing and Onetime)	(187,500)	(750,000)	(6,625,000)	(9,375,000)	(37,500,000)	(331,250,000)	-	-	-
Management Fee - Fee Reduction/Rebate	-	-	-	-	-	-	-	-	-
(Partnership Expenses - Total: {Vehicle Fees and Vehicle Costs}):	**(48,000)**	**(154,780)**	**(548,429)**	**(2,328,750)**	**(4,985,053)**	**(25,072,055)**	**-**	**-**	**-**
(Vehicle Fees – Related Party)	**(33,000)**	**(130,000)**	**(435,000)**	**(2,075,000)**	**(4,250,000)**	**(21,300,000)**	**-**	**-**	**-**
(Vehicle Fee – Related Party - Debt Arrangement Fee (Fund Financing Fee Charged by IM)	(10,000)	(30,000)	(100,000)	(500,000)	(1,000,000)	(5,000,000)	-	-	-
(Vehicle Fees – Related Party - Transaction Based Property Service)	(10,000)	(60,000)	(200,000)	(1,000,000)	(2,000,000)	(10,000,000)	-	-	-
(Vehicle Fee – Related Party and/or passthrough - Other - Staff Due Diligence)	(6,000)	(20,000)	(60,000)	(300,000)	(700,000)	(3,500,000)	-	-	-
(Vehicle Fee – Related Party and/or passthrough - Other - Travel & Entertainment)	(5,000)	(10,000)	(50,000)	(150,000)	(300,000)	(1,500,000)	-	-	-
(Vehicle Fee – Related Party - Other+)	(2,000)	(10,000)	(25,000)	(125,000)	(250,000)	(1,300,000)	-	-	-
(Vehicle Costs – Third Party - Professional Service)	**(5,000)**	**(5,000)**	**(15,000)**	**(50,000)**	**(200,000)**	**(1,000,000)**	**-**	**-**	**-**
(Vehicle Cost – Third Party - Debt Arrangement Costs [ie. Subscription Lines of Credit])	(1,000)	(1,000)	(3,000)	(10,000)	(40,000)	(200,000)	-	-	-
(Vehicle Cost – Third Party - Organizational/Formation Costs)	(500)	(500)	(1,500)	(5,000)	(20,000)	(100,000)	-	-	-
(Vehicle Cost – Third Party - Professional Service - Legal Service)	(1,000)	(1,000)	(3,000)	(10,000)	(40,000)	(200,000)	-	-	-
(Vehicle Costs – Third Party - Professional Service - Audit & Tax Preparation Service)	(500)	(500)	(1,500)	(5,000)	(20,000)	(100,000)	-	-	-
(Vehicle Costs – Third Party - Professional Service -Custody Service)	(1,000)	(1,000)	(3,000)	(10,000)	(40,000)	(200,000)	-	-	-
(Vehicle Costs – Third Party - Professional Service -Accounting, Admin & IT Service)	(1,000)	(1,000)	(3,000)	(10,000)	(40,000)	(200,000)	-	-	-
(Vehicle Costs – Third Party - Transaction Based Property Service - Dead Deal Cost Charged by 3rd Party)	-	-	-	-	-	-	-	-	-
(Vehicle Costs – Taxes)	(5,000)	(10,000)	(50,000)	(100,000)	(300,000)	(1,500,000)	-	-	-
(Vehicle Costs – Other+)	(5,000)	(5,000)	(10,000)	(20,000)	(40,000)	(200,000)	-	-	-
(Partnership Expenses – Other+)	-	(4,780)	(38,429)	(83,750)	(195,053)	(1,072,055)	-	-	-
Unapplied Fee & Expense Offset Balance (Roll-forward) - Beginning Balance	1,000	5,000	-	250,000	2,500,000	-	-	-	-
Total Offsets to Fees & Expenses (applied during period):	**82,600**	**346,500**	**1,538,521**	**4,140,600**	**19,227,400**	**82,424,249**	**-**	**-**	**-**
Total Offsets to Fees & Expenses (recognized during period):	**81,600**	**341,500**	**1,538,521**	**3,890,600**	**16,727,400**	**82,424,249**	**-**	**-**	**-**
Unapplied Fee & Expense Offset Balance (Roll-forward) - Ending Balance	-	-	-	-	-	-			
(Total Management Fees & Partnership Expenses, Net of Offsets & Rebates, Gross of Fee Waiver)	**(152,900)**	**(558,280)**	**(5,634,908)**	**(7,563,150)**	**(23,257,653)**	**(273,897,806)**	**-**	**-**	**-**
Fee Waiver	-	7,500	25,000	-	375,000	1,250,000	-	-	-
Interest Income	500	1,000	10,000	25,038	50,075	500,750	38	75	750
Property Income/Distributions, Dividend Income	10,000	32,380	233,508	500,750	2,503,750	17,030,000	750	3,750	30,000
(Interest Expense)	(2,000)	(8,000)	(40,000)	(100,150)	(400,600)	(2,003,000)	(150)	(600)	(3,000)
Other Income/(Expense)+	1,000	3,000	20,000	50,075	150,225	1,001,500	75	225	1,500
Total Net Investment Income (Expense)	**(143,400)**	**(522,400)**	**(5,386,400)**	**(7,087,438)**	**(20,579,203)**	**(256,118,556)**	**713**	**3,450**	**29,250**
(Placement Fees)	**-**	**-**	**(40,000)**	**-**	**-**	**(2,000,000)**	**-**	**-**	**-**
Realized Gain / (Loss)	**1,000,000**	**3,000,000**	**15,100,000**	**50,075,000**	**145,392,253**	**887,937,906**	**2,575,000**	**12,725,000**	**175,728,250**
Change in Unrealized Gain / (Loss)	**1,000,000**	**5,000,000**	**20,000,000**	**62,593,750**	**250,375,000**	**1,608,000,000**	**12,531,160**	**75,375,000**	**250,500,000**
Ending NAV - Net of Incentive Allocation	**45,673,600**	**45,673,600**	**45,673,600**	**2,538,269,350**	**2,538,269,350**	**2,538,269,350**	**351,707,500**	**351,707,500**	**351,707,500**
Reconciliation for Accrued Incentive Allocation a.k.a. (Carried Interest, Promoted Interest, Profit-Share, Performance-Fee) — Accrued Incentive Allocation/Carried Interest - Starting Period Balance	(4,750,000)	(3,750,000)	-	-	-	-	337,500,000	275,000,000	-
Incentive Allocation/Carried Interest - Paid During the Period	50,000	250,000	1,250,000	-	-	-	(2,500,000)	(12,500,000)	(75,000,000)
Accrued Incentive Allocation/Carried Interest - Periodic Change	(300,000)	(1,500,000)	(6,250,000)	-	-	-	15,000,000	87,500,000	425,000,000
Accrued Incentive Allocation/Carried Interest - Ending Period Balance	(5,000,000)	(5,000,000)	(5,000,000)	-	-	-	350,000,000	350,000,000	350,000,000
Ending NAV - Gross of Accrued Incentive Allocation/Carried Interest	**50,673,600**	**50,673,600**	**50,673,600**	**2,538,269,350**	**2,538,269,350**	**2,538,269,350**	**1,707,500**	**1,707,500**	**1,707,500**
Management Fee & Partnership Expense, Fee Waiver, Placement Fee, Incentive Allocation - for ("TGER") Numerator	**(452,900)**	**(2,050,780)**	**(11,899,908)**	**(7,563,150)**	**(22,882,653)**	**(274,647,806)**			

A.2 Commitment Reconciliation:	*LP #5's Allocation of Total Fund*			*Total Fund (incl. GP Allocation)*			*GP's Allocation of Total Fund*		
Total Commitment	**50,000,000**	**50,000,000**	**50,000,000**	**2,503,750,000**	**2,503,750,000**	**2,503,750,000**	**3,750,000**	**3,750,000**	**3,750,000**
Beginning Unfunded Commitment:	**18,500,000**	**23,500,000**	**50,000,000**	**926,387,500**	**1,176,762,500**	**2,503,750,000**	**1,387,500**	**1,762,500**	**3,750,000**
(Less Contributions)	-	(5,000,000)	(35,000,000)	-	(250,375,000)	(1,752,625,000)	-	(375,000)	(2,625,000)
Plus Recallable Distributions	-	-	4,000,000	-	-	200,300,000	-	-	300,000
(Less Expired/Released Commitments)	-	-	-	-	-	-	-	-	-
+/- Other Unfunded Adjustment	-	-	(500,000)	-	-	(25,037,500)	-	-	(37,500)
Ending Unfunded Commitment	**18,500,000**	**18,500,000**	**18,500,000**	**926,387,500**	**926,387,500**	**926,387,500**	**1,387,500**	**1,387,500**	**1,387,500**

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[Enter the Name of your Fund Here, i.e. Best Practices Real Estate Fund II]	LP #5's Allocation of Total Fund			Total Fund (incl. GP Allocation)			GP's Allocation of Total Fund		
	QTD (Oct-18 - Dec-18)	YTD (Jan-18 - Dec-18)	Since Inception (Mar-10 - Dec-18)	QTD (Oct-18 - Dec-18)	YTD (Jan-18 - Dec-18)	Since Inception (Mar-10 - Dec-18)	QTD (Oct-18 - Dec-18)	YTD (Jan-18 - Dec-18)	Since Inception (Mar-10 - Dec-18)
A.3 Miscellaneous** (input positive values):	***($1,000)***			***($10,000)***			***$0***		
Incentive Allocation - Earned (period-end balance)****	1,250,000	1,250,000	1,250,000	-	-	-	75,000,000	75,000,000	75,000,000
Incentive Allocation - Amount Held in Escrow (period-end balance)****	250,000	250,000	250,000	-	-	-	15,000,000	15,000,000	15,000,000
Returned Clawback****	-	-	-	-	-	-	-	-	-
Capitalized Transaction Fees & Exp. - Costs Paid to Third Parties****	50,000	200,000	1,000,000	2,503,750	10,015,000	50,075,000			
Distributions Relating to Fees & Expenses****	2,500	10,000	58,000	125,188	500,750	2,904,350			
Fund of Funds: Gross Fees, Exp. & Incentive Allocation paid to the Underlying Funds****									

B.1 Source Allocation:		***LP #5's Allocation of Total Fund***			***Cumulative LPs' Allocation of Total Fund***			***Affiliated Positions******		
With Respect to the Fund's LPs	Management Fees - Net of Rebates, Gross of Offsets and Waivers	187,500	750,000	6,625,000	9,375,000	37,500,000	331,250,000			
	Partnership Expenses [Vehicle Fees] - Paid to **GP & Related Parties** - Gross of Offsets	1,000	4,000	30,000	50,075	200,300	1,502,250			
	(Less Total Offsets to Fees & Expenses - applied during period)	(82,600)	(346,500)	(1,538,521)	(4,140,600)	(19,227,400)	(82,424,249)			
	Capitalized Transaction Fees & Exp. - Paid to **GP & Related Parties******	-	-	-	-	-	-			
	Accrued Incentive Allocation/Carried Interest - Periodic Change	**300,000**	**1,500,000**	**6,250,000**	**15,000,000**	**87,500,000**	**425,000,000**			
With Respect to the Fund's Underlying Properties/ Invs. Fees Received by GP	Fees with Respect to Underlying Properties/Investments: (Operating Model/Vertically Integrated Fees earned by GP)	80,600	350,500	1,611,277	3,792,500	17,475,000	86,164,062	947,225	4,342,500	21,334,765
	Fee - Related Party - Project Management Fee	35,000	145,000	563,777	1,512,500	6,250,000	28,789,062	378,125	1,562,500	7,197,265
	Fee - Related Party - Internal Leasing Commission	30,600	137,500	712,500	1,530,000	8,947,000	40,875,000	381,600	1,917,500	10,012,500
	Fees - Related Party - Transaction Based Property Service	15,000	68,000	335,000	750,000	2,278,000	16,500,000	187,500	862,500	4,125,000
	Fee - Related Party - Other Underlying Property/Investment Fee + ****	-	-	-	-	-	-	-	-	-
Total Received by the GP & Related Parties - for the Related Party Footnote ("RPF")		**486,500**	**2,258,000**	**12,977,756**	**24,076,975**	**123,447,900**	**761,492,063**	**947,225**	**4,342,500**	**21,334,765**
Excluded in RS RPF	Total Reimbursements for Travel & Administrative Expenses****	5,000	15,000	62,200	200,000	600,000	248,800	8,000	19,500	88,500

	LP #5's Allocation of Total Fund			Total Fund (incl. GP Allocation)			GP's Allocation of Total Fund		
[Enter the Name of your Fund Here, i.e. Best Practices Real Estate Fund II]	**QTD** (Oct-18 - Dec-18)	**YTD** (Jan-18 - Dec-18)	**Since Inception** (Mar-10 - Dec-18)	**QTD** (Oct-18 - Dec-18)	**YTD** (Jan-18 - Dec-18)	**Since Inception** (Mar-10 - Dec-18)	**QTD** (Oct-18 - Dec-18)	**YTD** (Jan-18 - Dec-18)	**Since Inception** (Mar-10 - Dec-18)

*Current offset percentages for the specific LP; As offset calculations may change over the life of the Fund, the current offset percentages may not be applicable for calculating the non-QTD offset balances

**Content in A.3 aims to provide users with additional context on the balances provided in other sections; Some of the balances in A.3 represent a sub-total for an amount provided in another section; Balances in this section should be entered as a positive amount, even though similar balances in other sections may typically be presented as a negative amount; To prevent double-counti

***Balances in this section represent fees & reimbursements received by the GP/Manager/Related Parties with respect to the Fund's investments that are not allocable to the Total Fund (i.e. allocated to ownership interests of LP co-investors & other vehicles managed-by/affiliated-with the GP/Manager/Related Party); To avoid double-counting, LP # 5's Allocation of Total Fund should no

****Allocation for individual LPs, the Total Fund and all remaining positions may need to be estimated on a pro-rata basis

*A description should be provided in the footnote section for any amount(s) listed in this row for the year-to-date period

Grouped Content Represents Definitions, NO INPUT

Footnotes for any YTD (Total Fund) expenses, fees & offsets (including any "other" balances)

Partnership Expenses – Other ($10,500) = Insurance ($8,000) + Partnership-Level Taxes ($2,500)

GPs are encouraged to provide the LP specific management fee rate, preferred return, promote split, waterfall schedule, etc.

HANDBOOK VOLUME II: TOOLS

NCREIF PREA
Reporting Standards

Published June 17, 2020

Guide for Disclosures of COVID-19 Related Rent Relief

Enhancements (shown in red) September 30, 2020

NCREIF pension real estate association PREA

Rent Deferral/Waiver Disclosures

Notes to managers: *This disclosure is an example and should be considered a general format in order to consistently summarize the COVID-19 impacts to operations. The objectives are to provide investors with consistent and comparable information across their portfolios and to provide investment managers the flexibility to tailor the discussion points to address specific matters impacting their funds and separately managed accounts. As such, investment managers are encouraged to add additional notes or data where appropriate to facilitate transparency (i.e., property sub type information, the impact to significant assets or tenants, and overall investment performance). The data presented below is intended to include elements that are generally collected in investment manager systems. All numbers in charts should be at the fund's pro rata share. Management may consider disclosing data in a narrative format instead of in a chart format if situations warrant. All disclosures are subject to the availability of the data as determined by management.*

This report is recommended guidance within the Reporting Standards (i.e., not required for compliance) for all funds and separately managed accounts (SMAs) with operating property.

[Recommended location – Manager Letter in front of report]

The following provides summary information concerning policies utilized by [insert vehicle name] and resulting financial impact on the [insert vehicle name].

Income recognition policy

Management to discuss the income recognition policy that management has elected for deferred rents and reserves for allowance for doubtful accounts[1]:

- *Variable lease approach - Record $0 rent during the waived period*
- *Receivable approach – Record rent during deferral period*
  - *No reserve for allowance for doubtful accounts*
  - *Partial reserve for allowance for doubtful accounts*
  - *Full reserve for allowance for doubtful accounts*

General summary of waived rents and deferred rents

Management to provide a general summary of the deferred and waived rents granted to tenants by property type during the reporting period using the chart below. Management to consider disclosing the deferred and waived rents amount as a percentage of total expected rent (gross of deferred and waived rent impact) and

[1] In light of the COVID-19 pandemic many landlords are granting rent deferrals or rent waivers to a large number of tenants. Given the burden associated with reviewing large portfolios of leases, the FASB and SEC have provided relief provisions. The relief allows entities to make a policy election as to whether they treat COVID-19 related rent concessions as a provision included in the pre-concession arrangement, and therefore, not a lease modification. In order to be considered a COVID-19 related rent concession, lease cash flows may be less than those prior to the concession, but not substantially more.

additional disclosure on the deferred range if needed (i.e. "most deferral agreements were 2-3 months with repayment over the next 12, etc.").

Below is a summary of the deferred rents and waived rents granted to tenants related to COVID-19: ***Note to managers**: Please include impacted properties in each property type total and include all property types in a fund or SMA even if the impact is zero. Consider adding property subtype if appropriate for your vehicle strategy (e.g. medical office, strip center, regional malls). The rents in the chart below should include deferrals/waivers for all rents (base rent, expense reimbursements, etc.) granted as of the reporting date however, management may consider discussing any subsequent deferrals/waivers given in the narrative. The YTD & Rolling 12 months data will not be applicable until subsequent quarters.*

	QTD	YTD	Rolling 12 months	Range of months
Deferred Rents:				
Retail	$xxx,xxx	$xxx,xxx	$xxx,xxx	2-3 months
Apartment	$xxx,xxx	$xxx,xxx	$xxx,xxx	2-3 months
Office	$xxx,xxx	$xxx,xxx	$xxx,xxx	1-2 months
Industrial	$xxx,xxx	$xxx,xxx	$xxx,xxx	3-4 months
Other (Note type)	$xxx,xxx	$xxx,xxx	$xxx,xxx	1-2 months
Total Deferred Rents	**$xxx,xxx**	**$xxx,xxx**	**$xxx,xxx**	

	QTD	YTD	Rolling 12 months	Range of months
Waived Rents:				
Retail	$xxx,xxx	$xxx,xxx	$xxx,xxx	2-3 months
Apartment	$xxx,xxx	$xxx,xxx	$xxx,xxx	2-3 months
Office	$xxx,xxx	$xxx,xxx	$xxx,xxx	1-2 months
Industrial	$xxx,xxx	$xxx,xxx	$xxx,xxx	1-2 months
Other (Note type)	$xxx,xxx	$xxx,xxx	$xxx,xxx	1-2 months
Total Waived Rents	**$xxx,xxx**	**$xxx,xxx**	**$xxx,xxx**	

General assessment of collectability

Management to provide a general summary of collectability of deferred rents by property type using the charts below and including management's policy for monitoring the collectability of the deferred rents. Consider disclosing your allowance for doubtful accounts/bad debt policy (i.e. management has considered tenant credit risks in determining the reserve for allowances of doubtful accounts).

Below is a summary of the gross accounts receivable balances related to the deferred rents, the allowance for doubtful accounts related to the deferred rents and the bad debt expense ***Note to managers**: Consider adding the percentage of the accounts receivable, allowance for doubtful accounts to the total fund/portfolio's balances.*

	Accounts Receivable balance as of mm/dd/yy	Allowance for Doubtful Accounts as of mm/dd/yy	QTD Bad Debt Expense	YTD Bad Debt Expense	Rolling 12 months Bad Debt Expense
Deferred Rents:					
Retail	$xxx,xxx	$xxx,xxx	$xxx,xxx	$xxx,xxx	$xxx,xxx
Apartment	$xxx,xxx	$xxx,xxx	$xxx,xxx	$xxx,xxx	$xxx,xxx
Office	$xxx,xxx	$xxx,xxx	$xxx,xxx	$xxx,xxx	$xxx,xxx
Industrial	$xxx,xxx	$xxx,xxx	$xxx,xxx	$xxx,xxx	$xxx,xxx
Other (Note type)	$xxx,xxx	$xxx,xxx	$xxx,xxx	$xxx,xxx	$xxx,xxx
Total	**$xxx,xxx**	**$xxx,xxx**	**$xxx,xxx**	**$xxx,xxx**	**$xxx,xxx**

Below is a summary of the rent collection rates. Below is a summary of the rent collection rates. ***Note to managers****: the calculation for these rates is the total rent collected divided by the total rent due for the reporting periods (please disclose the date collections were evaluated through). Total rent should include all rent types (base rent, expense reimbursements, etc.) and management should note if the total rent due (the denominator) includes the deferred rents. Management may consider disclosing the pre-COVID-19 rent collection rate for comparability noting the reporting period (i.e. Year ended 2019, March 2020, etc.).*

	Total Rent Collected	Total Rent Due	Rent Collection Rate	Pre-COVID-19 Rent Collection Rate
Retail	$xxx,xxx	$xxx,xxx	xx.x%	xx.x%
Apartment	$xxx,xxx	$xxx,xxx	xx.x%	xx.x%
Office	$xxx,xxx	$xxx,xxx	xx.x%	xx.x%
Industrial	$xxx,xxx	$xxx,xxx	xx.x%	xx.x%
Other (Note type)	$xxx,xxx	$xxx,xxx	xx.x%	xx.x%
Total	**$xxx,xxx**	**$xxx,xxx**	xx.x%	xx.x%

HANDBOOK VOLUME II: TOOLS



NCREIF PREA

Reporting Standards

Published	November 5, 2021

Total Global Expense Ratio ("TGER") Example Disclosure & Guidance

NCREIF PREA pension real estate association

Total Global Expense Ratio ("TGER")

Key Principles – TGER is a principles-based metric that is intended to provide investors with an understanding of fee and expense loads of funds, regardless of regional and operational differences.

- **Comparability** - Fees and costs are required be consistently categorized, defined, and presented, to enable investors and managers to compare fund performance.
- **Transparency:**
  - Clear and appropriate disclosure of all the fees and costs charged to the fund is required.
  - Investment managers are required to explain the calculation methodology and assumptions used.
  - Communication of all relevant information is required to be open, accessible, and easy to understand.

All expenses are assessed based on the nature of the service no matter where the investment manager determines the expense sits in the investment structure of the vehicle. Any additional fees and costs charged at a specific investor feeder level, including cash, hedge fees and other professional services costs are excluded from TGER. This is because not all investors in a fund participate in all feeder vehicles the fund may establish.

TGER may not be capturable within certain Special Purpose Vehicles ("SPV"). In these situations, TGER provides for exclusion of such costs generated at the SPV level provided (1) the investment manager's systems do not track such information and/or (2) the investment manager does not have access rights to access such information. If the information is available and the investment manager has access rights to be able to perform such look through, this must be done in order to comply with TGER reporting. The approach taken by the investment manager is required to be disclosed in a disclosure note as part of their investor reporting.[1]

Reporting Standards Requirements and Recommendations:[2]

- Required: Open-end funds.
- Required: Closed-end funds – Closed-end funds launched in 2020 and thereafter
- Recommended – Since-inception for Closed-end funds to show trending at various stages of a fund's life cycle. A since-inception based TGER must be clearly labeled as such.
- Out of Scope – Separately managed accounts as transparency into underlying fees/costs is already inherent in reporting.

[1] See *NCREIF PREA Reporting Standards Volume I*; December 19, 2019; PR 23.3 https://reportingstandards.info/
[2] See *NCREIF PREA Reporting Standards Volume I*; December 19, 2019; PR 23 https://reportingstandards.info/

Effective Date:

For most funds TGER will be reported for the rolling 12 months ending December 31, 2020 and thereafter. Please note the following:

- Funds with fiscal years other than December 31, 2020 (i.e., March 31, June 30, September 30) will be required to report TGER for the 12 months ending March 31, June 30, September 30, 2021 and thereafter.
- Frequency – required rolling 12 months annually and may be reported quarterly.

Components of TGER:

- **Ongoing Management Fees** – Fund and asset management fees charged by investment managers for their services regarding the everyday running of the vehicle and its portfolio.
- **Performance Fees/Compensation** – Fees charged by investment managers after a predetermined investment performance hurdle has been attained including amounts realized and unrealized.
- **Transaction Fees** – Fees charged by investment managers for their services regarding the acquisition/disposition of real estate.
- **Vehicle Costs** – Third party costs incurred predominantly at fund level to maintain and grow its operations.
- **Weighted Gross Asset Value ("GAV")** – Total assets derived from the vehicle accounting standards, e.g., US GAAP, IFRS, and adjusted for specific elements to arrive at a market-relevant gross asset value in accordance with NCREIF PREA Reporting Standards/INREV Guidelines. Daily weighting of cash flows is recommended. If not feasible, at a minimum the average quarterly amounts should be used to calculate the average GAV. See Reporting and Presentation below for additional guidance. (See footnote 3 in example).
- **Weighted Net Asset Value ("NAV")** – Total net assets derived from the vehicle accounting standards, e.g., US GAAP, IFRS, and adjusted for specific elements to arrive at a market-relevant net asset value in accordance with NCREIF PREA Reporting Standards/INREV Guidelines. Daily weighting of cash flows is recommended. If not feasible, at a minimum the average quarterly amounts should be used to calculate the average NAV.

TGER Fees and Costs:[3]

- **Ongoing Asset Management fees charged by Investment Manager**: Asset/Fund management fees including fee waivers/offsets and fee reductions
- **Performance fees/compensation charged by Investment Manager**:
    - Incentive fees
    - GP promotes
    - Carried interest
    - Clawbacks

[3] See *Global Definitions Database for definitions* https://www.inrev.org/definitions/

- **Transaction fees charged by Investment Manager:**
  - Wind-up fees
  - Transaction based management fees
  - Debt arrangement fees incurred
  - Commitment fees
  - Subscription fees
  - Redemption fees
  - Property acquisition fees
  - Distribution fees
  - Property disposition fees
  - Project management fees (excluding Development fees)
  - Fees paid outside of the fund
- **Fund Vehicle Costs (Third Party)**
  - Audit costs
  - Bank charges, custodian costs and depository costs
  - Debt arrangement advisory costs incurred at the fund and property level (e.g., costs to source a Line of Credit, Private Placement Costs, investment level and property debt). This would include any broker fees. This does not include loan financing costs to close a loan (i.e., legal and title costs).
  - Other/misc. vehicle costs
  - Placement agent costs
  - Professional services costs
  - Securities handling charges
  - Staff costs
  - Fund administration and transfer agent costs
  - Fund formation costs
  - Dead deal costs
  - Vehicle formation and administration costs
  - Accounting costs
  - Legal costs
  - Appraisal/Valuation costs
  - Tax advisory costs (excluding Vehicle tax)

TGER Calculation – Backward looking using rolling 12 months and at Fund's Share:

GAV TGER (Required)

$$\frac{\text{Fund Fees (Investment Manager) + Fund Vehicle Costs (3rd Party)}}{\text{Time Weighted Average GAV (See footnote 3 in example)}}$$

NAV TGER (may be reported in addition to GAV TGER and must be clearly labeled as such)

$$\frac{\text{Fund Fees (Investment Manager) + Fund Vehicle Costs (3rd Party)}}{\text{Time Weighted Average NAV}}$$

Fundamentals of TGER:

- **Nature vs Geography** – Fund costs pushed down to investment / property entities are required to be included in TGER.
  In some cases, audit costs relating to the annual audit of the vehicle are allocated to each investment by the investment manager; in other cases, a manager may not allocate these costs to the investment. TGER looks at the nature of the cost rather than where the cost is recorded on the books and reflects the costs of the annual audit in relation to the vehicle accordingly.
  Investment managers may outsource services to 3rd party operators (i.e., joint venture partners) that they would otherwise provide which, in addition to their own asset management fee and promote, allows for an investment level asset management fee and promote to be paid to the 3rd party operators. Consistent with the concept that TGER relates solely to the fund load, these fees and promotes to the joint partner are not included in TGER.
- **Fees Paid Outside of Fund** – Fees paid by investors directly and outside of fund are included in TGER.
- **Look Through** – In general, JV costs are typically investment related and not included in TGER. However, should any costs at the JV level be related to fund costs in nature (e.g., valuation costs), the pro rata share of the costs are required to be included in TGER.
- **Feeder Fund Costs** – Are considered specific to a group of investors and are not included in TGER. However, investor fees paid at the feeder level would be included in TGER.
- **Property Fees Paid and Fees Paid to Investment Manager in Lieu of 3rd Party Costs** – Are not included in TGER but must be disclosed.[4] A reference to Related Party Disclosures prepared and presented in accordance with Reporting Standards Fair Value Accounting Policy Manual is acceptable.
- **Currency** – TGER calculations should be based on the fund's reporting currency.
- **Proportional Consolidation** – Recommended to fairly account for expenses incurred with respect to investments which are not wholly owned irrespective of accounting methodology. If sufficient information is not readily available, or the expense(s) is deemed to be immaterial, managers can

[4] See *NCREIF PREA Reporting Standards Volume I*; December 19, 2019; PR 23.4 https://reportingstandards.info/

apply discretion to provide a best estimate of the share of their investment expenses. When proportional consolidation is utilized it must be applied to the numerator and the denominator.

Reporting and Presentation:

- **Presentation** – The ratio is recommended to be presented in management notes section of annual financial report.
- **Disclosure** – TGER Components Table are required to include annual rolling four quarters (see Footnote 3 in example) and prior year comparative of fees and costs. A reference to Related Party Disclosures prepared and presented in accordance with Reporting Standards Fair Value Accounting Policy Manual is acceptable. Prior year comparison is not required for the December 31, 2020 disclosure.

  TGER disclosures must indicate whether management fee adjustments including, rebates, fee reduction, fee waivers, and transaction costs are utilized by the Fund (and are therefore included in TGER as a reduction of fees).[5]

  TGER disclosures must indicate the types of fees and costs included in TGER. It is important to note that information on fees paid to the managers is captured within related party disclosures in the financial statement footnotes under both the Operating and Non-operating Models (See NCREIF PREA Reporting Standards Fair Value Accounting Policy Manual).[6]

  TGER disclosures must include a description of the types of estimates utilized in the calculation for TGER including, but not limited to information not available as of the reporting period; and estimates surrounding GAV (or NAV if NAV is presented).[7]
- **Weighted Average GAV** (See footnote 3 in example) – GAV can be calculated as follows. Investment manager is required to disclose methodology for calculating the Weighted Average GAV.
  - Operating Model, GAV is calculated as: Total balance sheet assets – Joint Venture partner's economic share of total assets
  - Non-operating Model, GAV is calculated as: Total balance sheet assets + fund economic share of total joint venture liabilities + liabilities of consolidated entities.
- **Weighted Average NAV** – Should follow guidance used for performance reporting. Investment manager is required to disclose methodology for calculating the Weighted Average NAV.
- **GAAP Expense Ratio** – Although this ratio reported in annual audited financial statements may be similar in some ways to TGER, the components of the GAAP ratio may be different.

[5] See *NCREIF PREA Reporting Standards Volume I*; December 19, 2019; PR 23.1 https://reportingstandards.info/
[6] See *NCREIF PREA Reporting Standards Volume I*; December 19, 2019; PR 23.2 https://reportingstandards.info/
[7] See *NCREIF PREA Reporting Standards Volume I*; December 19, 2019; PR 23.3 https://reportingstandards.info/

Example Disclosure:

Total Global Expense Ratio
For the Rolling Four Quarters Period Ended MM/DD/CY and MM/DD/PY

	MM/DD/CY	MM/DD/PY
Asset/Fund management fees [1]	$xxx,xxx	$xxx,xxx
Performance fees/compensation	xxx,xxx	xxx,xxx
Transaction-based management fees [1]	xxx,xxx	xxx,xxx
Total Fees Earned by Investment Advisor	**$xxx,xxx**	**$xxx,xxx**
Total Vehicle-related costs charged by third parties [2]	**$xxx,xxx**	**$xxx,xxx**
Average Gross Asset Value [3]	**$xxx,xxx,xxx**	**$xxx,xxx,xxx**
Gross Asset Value TGER	**x.x%**	**x.x%**
Weighted Average Net Asset Value [4]	**$xxx,xxx,xxx**	**$xxx,xxx,xxx**
Net Asset Value TGER	**x.x%**	**x.x%**

1. TGER disclosures must indicate the types of fees included in TGER and whether management fee adjustments including, rebates, fee reduction, fee waivers, and transaction costs are utilized by the Fund (and are therefore included in TGER as a reduction of fees).

2. TGER disclosures must indicate the types of costs included in TGER.

3. Gross asset value is the average of the quarterly assets as of mm/dd/yy through mm/dd/yy (e.g., 12/31/2019 through 12/31/2020) and mm/dd/py through mm/dd/py (e.g., 12/31/2018 through 12/31/19), respectively. Assets are calculated as follows: Total Balance Sheet assets less Joint Venture partner's economic share of total assets plus Fund's economic share of non-consolidated liabilities. ***Note to managers: The attempt to calculate a time-weighted Gross Asset Value may outweigh the benefits, therefore, managers may use a simple quarterly average.***

4. Net asset value is the average of the quarterly weighted net assets as of mm/dd/cy through mm/dd/cy and mm/dd/py through mm/dd/py, respectively.

HANDBOOK VOLUME II: TOOLS

NCREIF PREA

Reporting Standards

Issued	June 2021

Global AUM Calculation Tool

Download AUM Tool here

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NCREIF PREA

Reporting Standards

Issued	May 2022

RS ESG KPIs

Download ESG KPIs document here

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HANDBOOK VOLUME II



NCREIF PREA

Reporting Standards

Updated August 20, 2025

ADOPTING RELEASE

Reporting Standards Handbook: Including expansion of asset and investment reporting as highlighted in section FR.04 herein.
Issued by the NCREIF PREA Reporting Standards Council in conjunction with the NCREIF PREA Reporting Standards Board.

NCREIF PREA pension real estate association

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EXECUTIVE SUMMARY

This adopting release summarizes the changes made to the current edition of the NCREIF PREA Reporting Standards (Reporting Standards) Handbook Volume I dated April 5, 2023. The Reporting Standards build upon, but are not intended to replace, established standards issued by authoritative organizations and provide industry interpretive guidance when those standards are silent or subject to interpretation. The Reporting Standards apply to the information included in the collective reporting prepared periodically (e.g., quarterly and annually) for private institutional real estate investors in equity and debt Commingled Funds (e.g., Open-end and Closed-end) (collectively, Funds) and Separately Managed Accounts (SMAs) (also known as Separate Accounts or Single-client Accounts). The reporting may take many forms and may be available through written or electronic communications such as web portals. Compliance with the Reporting Standards is voluntary and is measured on a Fund and SMA basis. All delivery methods are collectively considered when determining compliance.

The effective date for the 2025 edition of Handbook Volume I is for fiscal years ending on or after December 31, 2025, with early adoption encouraged.

Highlights

The mission of the Reporting Standards is to establish, manage and enhance transparent and consistent reporting standards for the real estate industry, fostering comparability and informed investment decision-making. Three key pillars serve as the framework that connects mission with execution and guides how projects are set, prioritized, and pursued. The mission and key pillars are shown below.



This amendment to the Reporting Standards is focused on asset and investment level reporting elements for equity funds and separately managed accounts (SMAs) including but not limited to valuation and debt metrics. The changes were made to (1) recommend an increase in the frequency of reporting and (2) introduce additional recommended reporting elements. Recommendations represent situational best practices and should be applied when appropriate to the specific facts and circumstances. Please note that no changes are being made to the required and recommended elements for debt funds in this amendment.

Key changes are as follows:

- New RECOMMENDED frequency – increase frequency of reporting FR.04 - Schedule of Investments to QUARTERLY for equity funds and SMAs.
- New RECOMMENDED data elements – reporting frequency varies by account type.
    - Informational – Legal Share (Contractual Ownership), Effective Share (Effective Ownership)
    - Financial – Gross Real Estate Asset Value, Net Real Estate Asset Value, TTM NOI
    - Performance – Since Inception Gross and Net IRR, Gross and Net TVPI, Gross and Net Time-Weighted Return for quarter, and 1-, 3-, and 5-year periods
    - Real Estate Operations – Life Cycle, Lease Percent, Average WALT
    - Leverage – Loan Principal Balance, Loan Market Value (if applicable), LTV (Principal), LTV (FV) (if applicable), DSCR, Interest Rate, Associated Derivative Type, Derivative Maturity Date, Debt Maturity Date, Fully Extended Maturity Date
    - Valuation – Discount Rate, Terminal Rate, Going-in Cap Rate, Three-year Rent Growth, Ten-year rent growth
    - Business plan – Projected Exit Date, Gross and Net Projected IRR

Organization of the Adopting Release

The adopting release is intended to memorialize the processes, deliberations, and conclusions undertaken for changes made to the Reporting Standards. In addition to the Executive Summary, the adopting release contains the following:

- Appendix A: **The revised Reporting Standards Handbook Volume I (RS 2025)** which indicates, through highlighting, the substantive changes made to the 2023 edition of the Reporting Standards Handbook Volume I.
- Appendix B: **Feedback Received and Support for Conclusions Reached** which summarizes the Council deliberations, public comments received, and final conclusions reached on the exposure draft issued in connection with this update.
- Appendix C: **Questions Posed in the Exposure Draft.**
- Appendix D: **Excel-based Companion to Asset and Investment Level Reporting Changes Made.**

HANDBOOK VOLUME I

NCREIF PREA
Reporting Standards

Updated August 20, 2025

Reporting Standards Sponsors

National Council of Real Estate Investment Fiduciaries (NCREIF)

Founded in 1983, NCREIF is a member-driven, not-for-profit association that provides high-quality, transparent commercial real estate data and performance benchmarks for the institutional investment community. Its diverse membership includes investment managers, institutional investors, consultants, academics, and service providers. NCREIF is widely recognized for its industry-standard indices—such as the NCREIF Property Index (NPI), NFI-ODCE, and NFI-CEVA—and supports informed decision-making through research, education, and its sponsorship of the Reporting Standards.

Pension Real Estate Association (PREA)

Founded in 1979, PREA is a non-profit trade association for the global institutional real estate investment industry. PREA currently lists over 730 corporate member firms across the United States, Canada, Europe, and Asia. PREA's members include public and corporate pension funds, endowments, foundations, Taft-Hartley funds, insurance companies, investment advisory firms, REITs, developers, real estate operating companies, and industry service providers. PREA's mission is to serve its members engaged in institutional real estate investments through the sponsorship of objective forums for education, research initiatives, membership interaction and information exchange.

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Guided by the NCREIF PREA Reporting Standards Board, the Reporting Standards Council is charged with overseeing the effective implementation of this initiative. The following Council members have contributed to its success:

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NCREIF Committees and PREA Reporting and Valuation Affinity Group

The Reporting Standards Board and Council wish to acknowledge the leadership and members of the NCREIF Committees and the PREA Reporting and Valuation Affinity Group who actively contributed to the contents of this document.

INTRODUCTION

Preface

The Reporting Standards have been developed to promote transparent, consistent and meaningful reporting on performance, risk, fair value accounting and valuation. The Reporting Standards build on, but are not intended to replace, established standards issued by authoritative organizations, including, but not limited to the following: the Global Investment Performance Standards (GIPS®) promulgated by the CFA Institute; accounting principles generally accepted in the United States of America (GAAP) established by the Financial Accounting Standards Board (FASB); and the Uniform Standards of Professional Appraisal Practice (USPAP) developed by the Appraisal Standards Board of the Appraisal Foundation. Collectively, these established standards are referred to as the Foundational Standards throughout this Handbook.

The Reporting Standards present a single set of interdisciplinary principles and guidance which facilitate informed decision-making by providing investors with necessary and meaningful financial information.

The Reporting Standards include practical guidance that established standard-setting organizations do not specifically address regarding institutional real estate investment reporting. The Reporting Standards Board and the Reporting Standards Council collaborate with these organizations to provide industry perspective on topics which they pursue for real estate.

Defined terms

Words appearing in capital letters in the Reporting Standards are defined in the Global Definitions Database.

Applicability

The Reporting Standards apply to the information included in the collective reporting prepared periodically (e.g., quarterly and annually) for all private institutional real estate investors in commingled equity and debt funds (e.g., Open-end and Closed-end) (collectively, Funds) and Separately Managed Accounts (SMAs) (also known as Separate Accounts or Single-client Accounts. The reporting may take many forms and may be available through written or electronic communications such as web portals. Although many of the Reporting Standards elements are applicable to all types of Funds and SMAs, certain elements are deemed relevant only to a particular Fund or SMA structure. Accordingly, separate checklists, which are included in Handbook Volume II, have been developed to facilitate compliance.

Compliance with the Reporting Standards is measured on a Fund or SMA basis (see Compliance). In order to claim compliance, all required elements must be reported (i.e., Compliant Report or Compliant Reporting). Recommendations are elements of situational best practice and can be reported as deemed appropriate to the particular facts and circumstances. Although every attempt was made to minimize this occurrence, there may be certain circumstances where reporting of a required element is not applicable. In those instances, a response of "Not Applicable" may be appropriate. However, a manager can claim compliance in this circumstance, provided that the Compliant Report contains reasons why the required element is not applicable.

The Reporting Standards do not apply to firm level reports or the aggregation of multiple Funds reporting to an individual investor.

Reporting Standards Handbook

The two-volume Reporting Standards Handbook is designed to facilitate compliance with its standards. The Handbook is the single source of all authoritative guidance within Reporting Standards. Volume I contains the Reporting Standards and compliance information. Volume II is a multi-sectioned document organized into specific manuals that address discipline specific topic areas defined in Volume I, as well as research papers and tools.

Global Reporting Standards

NCREIF, PREA, INREV, and ANREV (as licensee of the INREV Guidelines) have executed a Memorandum of Understanding to evidence a mutual desire to collaborate on several standards initiatives. This collaboration is intended to create global reporting standards, (when deemed prudent and desirable), and to minimize future divergence. Standards which have been globally developed are fully incorporated in the Reporting Standards hierarchy. Although one day there may be a single global reporting standard, such is not currently the case and compliance with the Reporting Standards and compliance with the INREV Guidelines are separate activities. For compliance purposes, it is up to the reporter to determine whether the Reporting Standards or INREV Guidelines are applicable.

Sources of Additional Information

Additional Reporting Standards information is available on the Reporting Standards web site (http://www.reportingstandards.info). In addition, participating in the Reporting Standards sponsor groups, NCREIF and PREA, can provide further insights and understanding of the institutional real estate investment industry. Finally, the NCREIF and PREA web sites (http://www.ncreif.org and http://www.prea.org/) include more information about the Reporting Standards sponsors, as well as research, education opportunities, and other topical publications.

Effective Date

The effective date for the 2025 edition of Handbook Volume I, is for fiscal years ending on or after December 31, 2025 with early adoption encouraged.

REPORTING STANDARDS

Overview

The Reporting Standards contain the required and recommended elements which are included for Compliant Reporting.

- Required: Those elements that must be followed, where applicable, for collective periodic reporting to be deemed compliant with the Reporting Standards.
- Recommended: Those elements, although not required, that are considered a matter of best practice depending upon situational facts and circumstances.

The Reporting Standards foster transparent, consistent, and comprehensive reporting of Fund and SMA financial and operating information relevant to investors while embracing the underlying principles of the performance measurement (GIPS), accounting (GAAP-FV), and valuation (USPAP)-related Foundational Standards.

Performance and Risk Measurement

The performance and risk elements included in the Reporting Standards address input calculation, measurement, and presentation. These elements draw upon the GIPS standards for basic ethical principles, such as full disclosure and fair representation of investment performance, and for other specific methodologies and disclosures. The Reporting Standards do not conflict with the GIPS standards. However, the GIPS standards apply on a firm-wide basis only, while the Reporting Standards apply more specifically to Fund and SMA reporting. As such, the performance and risk measurement elements of the Reporting Standards do not incorporate all elements of the GIPS standards. Similarly, the Reporting Standards contain elements which the GIPS standards do not address, such as measurements of financial risk. The NCREIF PREA Reporting Standards Performance and Risk Manual included in Volume II of the Handbook provides:

- Detailed calculation instructions on time-weighted returns, internal rates of return, expense ratios, equity multiples, and debt liability risk;
- Sample of performance and risk disclosures;
- Measures and metrics used by performance professionals which may not be addressed within Volume I (e.g. property level performance); and
- Illustrative performance reports.

Fair Value Accounting

The Reporting Standards do not contradict GAAP; rather, compliance with the accounting elements of the Reporting Standards is predicated on compliance with GAAP. The purpose of the accounting elements of the Reporting Standards is to help apply GAAP consistently across the industry, thereby providing useful financial information to the U.S. private institutional real estate community. The NCREIF PREA Reporting Standards Fair Value Accounting Policy Manual, included in Volume II of the Handbook, provides additional guidance to support the required and recommended accounting elements of the Reporting Standards.

Valuation

The development of the valuation elements of the Reporting Standards resulted from investor requirements to carry assets at fair value and the need for useful information to support transaction decision processes. Generally, the valuation elements of the standards follow USPAP. The NCREIF PREA Reporting Standards Valuation Manual included in Volume II of the Handbook provides additional guidance to support the required and recommended valuation elements in the Reporting Standards and also contains information useful to valuation specialists (e.g. engagement procedures, data transmission and storage), which may not be specifically addressed in Handbook Volume I.

Standards

Standards Elements

REQUIRED AND RECOMMENDED ELEMENTS

For all Funds and SMAs, the information in the following chart is to be included in Compliant Reporting no less frequently than indicated. (Numbers reference the paragraphs within this section of the Handbook.) For convenience, Volume II contains separate Reporting Standards checklists which are available for Open-end Funds, Closed-end Funds, and SMAs. The checklists can also be found on the Reporting Standards website.

The discipline specific manuals (i.e. Fair Value Accounting Policy Manual, Performance and Risk Manual, and Valuation Manual) as well as other information included in Volume II (e.g., research papers and tools), provide additional guidance to support the required and recommended elements contained in the Reporting Standards.

Reporting Standards – Equity Funds					
Disciplines	**Element description**	**Frequency**	**Required or recommended element**	**Applicable account type**	**Reference**
Portfolio management	Name or identifier	Quarterly	Required	All	PM.01
	Contact	Quarterly	Required	All	PM.02
	Inception date	Quarterly	Required	All	PM.03
	Structure	Annually	Required	All	PM.04
	Style and strategy	Annually	Required	All	PM.05
	Portfolio diversification by: • Investment/property type • Region/location • Nature of investment (life cycle) • Investment structure	Quarterly	Required	All	PM.06
	Final closing date	Annually	Required	Closed-end	PM.07
	Scheduled termination date	Annually	Required	Closed-end	PM.08
	Management discussion of performance relative to objective	Quarterly	Recommended	All	PM.09
Performance and Risk	Total and Component Time-Weighted Return (TWR) – Gross of Fees and Total TWR Net of Fees. Periods: quarterly, 1 yr., 3yr., 5yr., 10yr., and since-inception (SI)	Quarterly	Required	Open-end	PR.01
	Total and Component Time-Weighted Return (TWR) – Gross of Fees and Total TWR Net of Fees. Periods: quarterly, 1 yr., 3yr., 5yr., 10yr., and since-inception (SI)	As requested by investor		Closed-end	PR.01
	Total and Component Time-Weighted Return (TWR) – Gross of Fees and Total TWR Net of Fees. Periods: quarterly, 1 yr., 3yr., 5yr., 10yr., and since-inception (SI)	Quarterly	Recommended	SMA	PR.01
	Disclosures accompanying TWR	Required when TWR is reported		All	PR.01.1-01.7
	Benchmark comparisons	Quarterly	Required	All	PR.02
	Net Asset Value	Quarterly	Required	All	PR.03
	Fund Tier 1 (T1) Total Leverage – at cost	Quarterly	Required	All	PR.04
	Fund T1 Leverage Percentage	Quarterly	Required	All	PR.05
	Since-inception Internal Rate of Return (IRR) - Gross and Net of fees	Quarterly	Required	Closed-end	PR.06
	Since-inception Internal Rate of Return (IRR) - Gross and Net of fees	Quarterly	Recommended	SMA	PR.06
	Disclosures accompanying IRR	Required when IRR is reported		All	PR.06.1-06.5
	Paid-in capital multiple	Quarterly	Required	Closed-end	PR.07
	Investment multiple	Quarterly	Required	Closed-end	PR.08
	Realization multiple	Quarterly	Required	Closed-end	PR.09
	Residual multiple	Quarterly	Required	Closed-end	PR.10
	Distributions since-inception	Quarterly	Required	Closed-end	PR.11
	Aggregate capital commitments	Quarterly	Required	Closed-end	PR.12
	Since-inception paid-in capital	Quarterly	Required	Closed-end	PR.13
	Fund T1 Leverage Yield	Quarterly	Recommended	All	PR.14
	Weighted average interest rate of Fund T1 Leverage	Quarterly	Recommended	All	PR.15
	Weighted average remaining term of fixed-rate Fund T1 Leverage	Quarterly	Recommended	All	PR.16
	Weighted average remaining term of floating rate Fund T1 Leverage	Quarterly	Recommended	All	PR.17
	Unfunded commitments	Quarterly	Recommended	Closed-end	PR.19
	Redemptions for quarter	Quarterly	Recommended	Open-end	PR.20

Reporting Standards – Equity Funds					
Disciplines	**Element description**	**Frequency**	**Required or recommended element**	**Applicable account type**	**Reference**
	Total subscribed commitments	Quarterly	Recommended	Open-end	PR.21
	Total redemption requests	Quarterly	Recommended	Open-end	PR.22
	Total Global Expense Ratio (TGER)	Annually	Required	Open-end	PR.23
	Total Global Expense Ratio (TGER)	Annually	Required for Funds formed in 2020 and beyond	Closed-end	PR.23
	Disclosures accompanying TGER	Required when TGER is reported			PR.23.1-23.4
Asset management	Occupancy level by property type	Quarterly	Required	All	AM.01
	Portfolio lease expiration statistics	Quarterly	Required	All	AM.02
	Top 10 tenants	Quarterly	Recommended	All	AM.03
Financial Reporting	Condensed Fair Value (FV) GAAP-based financial reporting	Quarterly	Required	All	FR.01
	Fair Value (FV) GAAP-based financial statements	Annually	Required	All	FR.02
	Financial statement audits	Annually	Required	All	FR.03
	Schedule of Investments	Annually	Required	All	FR.04
Valuation	Valuation policy statement	Annually	Required	All	VA.01
	Valuation policy	Required to be maintained		All	VA.02
	Internal valuations	Quarterly	Required	All	VA.03
	External valuations	Annually	Required	Open-end	VA.04
	External valuations	As provided in governance agreements		Closed-end, SMA	VA.05
	External valuations	Once every three years minimum	Recommended	SMA	VA.06
Compliance	Statement of Compliance	Quarterly	Recommended	All	

Reporting Standards – Debt Funds					
Disciplines	**Element description**	**Frequency**	**Required or recommended element**	**Applicable account type**	**Reference**
Portfolio management	Name or identifier	Quarterly	Required	All	PM.01
	Contact	Quarterly	Required	All	PM.02
	Inception date	Quarterly	Required	All	PM.03
	Structure	Annually	Required	All	PM.04
	Style and strategy	Annually	Required	All	PM.05
	Portfolio diversification by: • Investment/property type • Region/location • Nature of investment (life cycle) • Debt type • Interest rate type	Quarterly	Required	All	PM.06
	Final closing date	Annually	Required	Closed-end	PM.07
	Scheduled termination date	Annually	Required	Closed-end	PM.08
	Management discussion of performance relative to objective	Quarterly	Recommended	All	PM.09
Performance and Risk	Total and Component Time-Weighted Return (TWR) – Gross of Fees and Total TWR Net of Fees. Periods: quarterly, 1 yr., 3yr., 5yr., 10yr., and since-inception (SI)	Quarterly	Required	Open-end	PR.01
	Total and Component Time-Weighted Return (TWR) – Gross of Fees and Total TWR Net of Fees. Periods: quarterly, 1 yr., 3yr., 5yr., 10yr., and since-inception (SI)	As requested by investor		Closed-end	PR.01
	Total and Component Time-Weighted Return (TWR) – Gross of Fees and Total TWR Net of Fees. Periods: quarterly, 1 yr., 3yr., 5yr., 10yr., and since-inception (SI)	As requested by investor		SMA	PR.01
	Disclosures accompanying TWR	Required when TWR is reported		All	PR.01.1-01.7
	Net Asset Value	Quarterly	Required	All	PR.03
	Fund Tier 1 (T1) Total Leverage – at cost	Quarterly	Required	All	PR.04
	Fund T1 Leverage Percentage	Quarterly	Required	All	PR.05
	Since-inception Internal Rate of Return (IRR) - Gross and Net of fees	Quarterly	Required	Closed-end	PR.06
	Since-inception Internal Rate of Return (IRR) - Gross and Net of fees	As requested by investor		SMA	PR.06
	Disclosures accompanying IRR	Required when IRR is reported		All	PR.06.1-06.5
	Paid-in capital multiple	Quarterly	Recommended	Closed-end	PR.07
	Investment multiple	Quarterly	Recommended	Closed-end	PR.08
	Since-inception paid-in capital	Quarterly	Required	Closed-end	PR.13
	Weighted average interest rate of Fund T1 Leverage	Quarterly	Recommended	All	PR.15
	Weighted average remaining term of fixed-rate Fund T1 Leverage	Quarterly	Recommended	All	PR.16
	Weighted average remaining term of floating rate Fund T1 Leverage	Quarterly	Recommended	All	PR.17
	Unfunded commitments	Quarterly	Recommended	Closed-end	PR.19
	Redemptions for quarter	Quarterly	Recommended	Open-end	PR.20
	Total subscribed commitments	Quarterly	Recommended	Open-end	PR.21
	Total redemption requests	Quarterly	Recommended	Open-end	PR.22
	Total Global Expense Ratio (TGER)	Annually	Recommended in 2023, Required in 2024 and beyond	Open-end and Closed-end	PR.23
	Disclosures accompanying TGER	Required when TGER is reported			PR.23.1-23.4

Reporting Standards – Debt Funds					
Disciplines	**Element description**	**Frequency**	**Required or recommended element**	**Applicable account type**	**Reference**
	Financial leverage ratio	Quarterly	Recommended	All	PR.24
	Distribution yield	Quarterly	Recommended	Open-end	PR.25
Asset management	Loan to value or loan to cost	Quarterly	Required	All	AM.04
	Weighted average interest rate	Quarterly	Recommended	All	AM.05
	Debt yield	Quarterly	Recommended	All	AM.06
	Debt service coverage ratio	Quarterly	Recommended	All	AM.07
Financial Reporting	Condensed Fair Value (FV) GAAP-based financial reporting	Quarterly	Required	All	FR.01
	Fair Value (FV) GAAP-based financial statements	Annually	Required	All	FR.02
	Financial statement audits	Annually	Required	All	FR.03
	Schedule of Investments	Annually	Required	All	FR.04
Valuation	Valuation policy statement	Annually	Required	All	VA.01
	Valuation policy	Required to be maintained and consistently applied		All	VA.02
	Internal valuations	Quarterly	Required	All	VA.03
	External valuation of collateral at origination	One-time	Recommended	All	VA.07
Compliance	Statement of Compliance	Quarterly	Recommended	All	

Portfolio Management

Required: All Equity and Debt Funds and SMAs:

PM.01: Name or identifier (Quarterly): The label used to identify the Fund or SMA.

PM.02: Contact (Quarterly): The name of the person, or persons, responsible for issues relating to collective reporting matters. Frequently, this is the Fund or SMA Portfolio Manager.

PM.03: Inception date (Quarterly): The date of the first significant operating, financing, or investing activity into the Fund or SMA.

PM.04: Structure (Annually):

- Commingled Fund:

  Open-end

  Closed-end

- Separately Managed Account (SMA)

PM.05: Style and strategy (Annually): In general, a description of the Fund or SMA strategy includes its plan for asset allocations, taking into consideration goals, risk tolerance, and holding period. It also includes, at a minimum, the investment style. The strategy designation is the responsibility of the Fund or SMAs management. The description provided in the Compliant Report should be consistent with that presented in marketing materials, and material changes to those descriptions must be disclosed in Compliant Reporting in the period when the change takes place. Style definitions include but are not limited to the following:

- **Core**: Funds that include a preponderance of core attributes. The portfolio as a whole will have low leasing exposure and low leverage. A low percentage of non-core assets is acceptable. As a result, such portfolios should achieve relatively high-income returns and exhibit relatively low volatility.
- **Value-add**: Funds that generally include a mix of core investments and non-core investments and others that will have less stable income streams. The portfolio as a whole is likely to have moderate lease exposure and moderate leverage. As a result, such Fund or SMA should achieve a significant portion of the return from appreciation and exhibit moderate volatility.
- **Opportunistic**: Funds that preponderantly include non-core investments and which are expected to derive most of their returns from appreciation and/or which may exhibit significant volatility in returns. This may be due to a variety of characteristics, such as exposure to development, significant leasing risk, high leverage, or a combination of risk factors.
- **Non-core**: A combination of the Value-add and Opportunistic strategies described above.

PM.06: Portfolio diversification[1] (Quarterly): Calculated as a percentage, the value of real estate and/or debt investments in each category is divided by the total value of real estate and/or debt investments. The basis for the calculation must be disclosed (e.g., weighted average gross real estate and/or debt investment assets, weighted average net real estate and/or debt investment assets, weighted average NAV etc.). Note that the below contains portfolio diversification meaningful to both equity and debt funds. There may be additional meaningful diversification characteristics that are included in reporting to investors and for data products (e.g., NCREIF data products) and indexes. Managers need to apply professional judgement in reporting this requirement.

- By investment/property type: Suggestions include, but are not limited to, those in the NCREIF Property Index (e.g., Office, Industrial, Retail, Residential, and Hotel), in addition to Timberland and Agriculture, which NCREIF reports as separate indexes.

  Other investment/property types/subtypes might include:
  - Entertainment (e.g., theaters, golf courses, bowling alleys, restaurants, pubs, casinos).
  - Health care (properties primarily used for delivery of healthcare services including hospitals and outpatient clinics).
  - Land.
  - Parking (parking lots or structures).
  - Self-storage (self-storage units, single and multi-story, basic or climate-controlled).
  - Seniors housing.
  - Student housing.
  - Manufactured Housing.
  - Single Family Rental.
  - Life Science (industrial and office). Medical office.
  - Data Centers.
  - Mixed-use facilities (disclose composition of mixed-use facility).

- By region/location: NCREIF U.S. geographic divisions (Northeast, Mideast, East North Central, West North Central, Southeast, Southwest, Mountain, and Pacific). For a Fund or SMA which includes investments outside of the U.S., the manager should apply professional judgement to report meaningful location diversification (e.g., country, region, etc.) which suits its investors' needs.

- By nature of investment (life cycle):
  - Predevelopment: Raw land or land undergoing property site development.
  - Development: Property under construction, including preparation and installation of infrastructure.

[1] NCREIF Property Index and Property Database, Data Collection and Reporting Procedures Manual (Chicago: National Council of Real Estate Investment Fiduciaries, 2016)

  - Initial Leasing: Completed construction that is less than 60% leased since the end of construction and within one year of certificate of occupancy.
  - Operating: Completed construction that has achieved 60% leased status since the end of construction or has receipt of certificate of occupancy for more than one year.
  - Renovation: Undergoing substantial rehabilitation or remodeling.
  - Conversion: Undergoing conversion to another property type.
  - Expansion: Undergoing substantial expansion.

- By investment structure: The investment structure may include one of the following: wholly owned investments, joint ventures, bonds, senior debt, subordinated debt, mezzanine debt, participating mortgages, commercial mortgage-backed securities, public real estate security, private real estate operating company, club deals, co-investments, recapitalization, and secondaries.
- By debt type: The debt type may include one of the following: senior mortgage, B-piece, mezzanine, preferred equity, or whole loan.
- Interest rate type: Interest rate type may be reported as either fixed-rate or floating-rate.

Required: Closed-end Equity and Debt Funds only:

PM.07: Final closing date (Annually): The date of admittance of final investor(s) into the Closed-end Fund.

PM.08: Scheduled termination date (Annually): The date the Closed-end Fund is scheduled to liquidate, per its legal documents, or if such information is not identified within the legal documents, then the anticipated termination date based on the manager's most recent projection.

Recommended: All Equity and Debt Funds and SMAs:

PM.09: Management discussion of performance relative to objective (Quarterly): A summary discussion of the Fund or SMA performance for the quarter including comparisons to established objectives and stated investment strategy and parameters.

Performance and Risk

Note: The NCREIF PREA Reporting Standards Performance and Risk Manual contains additional guidance to support the required and recommended performance and risk elements shown below.

Required: Open-end Equity and Debt Funds; Required upon request of investor: Closed-end Equity and Debt Funds and SMAs:

PR.01: Total and Component (Income and Appreciation) Time-weighted Return (TWR), gross of (before) fees, and total net of (after) fees (Quarterly): The information used to calculate the TWR includes the activity from the aggregation of all the investments made by the Fund or SMA and its fund level income and expenses. All period returns (total and component) must be calculated separately, on a quarterly basis, using a geometrically linked TWR. Component returns must be presented gross (before) of fees

Additional Required disclosures: The following disclosures must accompany the presented element.

PR.01.1: Gross of fees: The Compliant Report must clearly disclose what types of fees are deducted from the gross return to arrive at the net return.

PR.01.2: Net of fees: The Compliant Report must clearly identify the net of fees returns presented for all investor classes. In situations where fees are billed separately and/or when different fee arrangements exist for investors, the Compliant Report must disclose the impact of these fees on TWR expressed, at a minimum, as a basis points range.

PR.01.3: Periodicity and Presentation Period: Compliant Reporting must include a single, gross of fee, and single net of fee current quarter result, as well as gross of fee cumulative periods 1, 3, 5, 10, and since-inception TWRs (as time periods are available) as of each reporting date. Other relevant interim annualized periods and/or net of fee cumulative periods are recommended to provide as requested. Since-inception results consists of 5 or more geometrically linked quarterly period TWRs. When presented, interim period returns must be provided using consistent methodology.

PR.01.4: Calculation methodology: The performance returns should use rate of return methodology that adjusts for daily weighted external cash flows (e.g. Modified Dietz) to produce returns. Returns must be geometrically linked and periods of greater than one year must be annualized. The methodology used to calculate TWR must be disclosed in the footnotes of the Compliant Report.

PR.01.5: Valuation and accounting policy and fees: For each period presented, the valuation policy, types of fees, and basis of accounting must be disclosed and be consistent with or made in reference to the information contained with the Reporting Standards Financial and Valuation information elements, including disclosure of each type of investment management fee. In addition, methodology used to record fees (i.e., capitalized or expensed or billed separately outside of the Fund or SMA) and the effect on the gross and net of fees performance calculations must be disclosed.

PR.01.6: Activity before initial contribution: If a Fund or SMA commences operations prior to the initial cash contribution from the investors (e.g., a line of credit is used to finance 100% of initial operations), the Compliant Report must disclose the nature of such activities and the treatment for performance.

PR.01.7: TWR Start Date and End Date: Compliant Reports must indicate the Start Date and End Date used for the inception to date return. The treatment of partial period activity must be disclosed (i.e. included or excluded).

Required: All Equity funds:

PR.02: Benchmark comparisons (Quarterly): A benchmark is a point of reference against which the Fund or SMAs performance and/or risk is compared.[2] Wherever possible, a benchmark should reflect the investment mandate's objective and strategy of the contractual arrangements provided in the governing documents.

If a benchmark is stipulated, it must be disclosed in Compliant Reporting quarterly. In certain situations, benchmarks may not be stipulated within the governing documents. In this situation, the Compliant Reporting must disclose the reason it does not have a stipulated benchmark. If the manager changes the benchmark, the date and reason for the change must be disclosed.

Compliant Reporting must include a benchmark period return that matches all actual net (or gross) period returns that are being reported. In addition, the name, source, description, and calculation methodology of the benchmark must be disclosed.

For meaningful comparisons, the benchmark should be calculated using the same since-inception date as the Fund or SMA.

Required: All Equity and Debt Funds and SMAs:

PR.03: Net Asset Value (NAV) (Quarterly): The NAV is the fair value of real estate and all other assets less total liabilities. This is the amount reported in the GAAP fair value-based financial statements.

PR.04: Fund T1 Total Leverage – at cost (Quarterly): Fund T (tier) 1 Total Leverage is the Fund's Economic Share of the leverage elements reported on the Fund's statement of net assets for wholly owned and consolidated joint ventures. (As used herein, joint ventures include investments that are other than wholly owned.) It also includes the Fund's Economic Share of the leverage elements that are embedded in investments made by investment companies and unconsolidated equity joint ventures. In addition, Fund T1 Total Leverage must include any Fund level debt, including but not limited to the drawn balance of subscription lines that have the ability to be outstanding for more than 90 days and/or when the manager has the ability to extend the term, but not other liabilities such as accounts payable or accrued expenses. Fund T1 Total leverage is not reduced by the Fund's cash balances. All T1 Leverage included in this measure

[2] *Global Investment Performance Standards for Firms*, January 2020, Glossary (substitute "SMA" for "Composite" and "Fund" for "Pooled Fund"), *Global Investment Performance Standards for Asset Owners*, January 2020, Glossary (substitute "SMA" for "Composite" and "Fund" for "Total Fund").

must be reported on an unamortized cost basis (i.e., remaining principal balance). A detailed calculation must accompany this element.

PR.05: Fund T1 Leverage Percentage (Quarterly): The Fund T1 Leverage Percentage indicates what proportion of Fund T1 Total Leverage a Fund or SMA has relative to its Economic Share of the total gross assets (as defined) of the Fund or SMA.

For purposes of the calculation of the Fund T1 Leverage Percentage and the Total Global Expense Ratio (PR.23) Gross Assets can be calculated as follows: Under the Operating Model, GAV is calculated as:

Total balance sheet assets – Joint Venture partner's economic share of total assets.

Under the Non-operating Model, GAV is calculated as:

Total balance sheet assets + Fund Economic Share of Total Joint Venture liabilities + liabilities of consolidated entities.

A Compliant Report must include a reconciliation of total assets (including real estate and/or debt investments and all other assets) reported in the financial statements and the total gross assets used for calculation purposes when presenting the Fund T1 Leverage Percentage.

If a Fund or SMAs total gross assets includes investment(s) where there is no contractual obligation on behalf of the venture partner or owner (e.g. for some minority owned investments) to provide such information, (collectively, "non-transparent investments"), the Compliant Report must disclose what percentage of its total gross assets are reported on a net basis because the leverage associated with those investments is not known. In addition, if the Fund or SMA can contractually receive the information but the timing of receipt is after the report date, then the information from that investment(s) can lag by a reasonable time period and appropriate disclosure. In addition to providing the total amount of non- transparent investments, the Compliant Report must include reasons why the information is non-transparent.

Required: Closed-end Equity and Debt Funds; Required upon request of investor: SMAs:

PR.06: Since-inception Internal Rate of Return (IRR), gross and net of fees (Quarterly): The IRR is the annualized implied discount rate (effective compounded nominal rate) that equates the present value of all of the appropriate cash inflows associated with an investment with the sum of the present value of all of the appropriate cash outflows accruing from it and the present value of the unrealized residual investment.

Additional required disclosures: the following disclosures must accompany the presented element:

PR.06.1: Gross of fees: The Compliant Report must clearly disclose the type/level of gross IRR reporting. Level 1a, 1b, or 2[3] is preferred for gross of fee reporting.

[3] See NCREIF PREA Reporting Standards research document: *Gross and Net IRR, adding transparency and comparability to Closed-end Fund performance and Investor Specific Reporting*, August 23, 2019

- ✓ Level 1a: Gross IRR before investment management fees and Fund costs. Uses cash flows from Fund (regardless of cash source) to investment.
- ✓ Level 1b: Gross IRR before investment management fees and Fund costs. Uses cash flows from investors to Fund.
- ✓ Level 2: Fund Gross IRR after deduction for Fund costs but before fees. Uses cash flows from investors to Fund after deduction of Fund costs but before fees.

PR.06.2: Net of fees: The Compliant Report must clearly present: the types of fees deducted from the gross return to arrive at net; and the net of fees returns presented for all investor classes. In situations where fees are billed separately and/or when different fee arrangements exist for investors, the Compliant Report must disclose the impact of these fees on IRR expressed, at a minimum, as a basis points range. The Compliant Report must clearly disclose the type/level of net IRR reporting. Level 4 is the preferred net of fee reporting. When Level 1 IRR is presented, the spread between gross and net (including Fund load/Fund costs) must be stipulated.

PR.06.3: Time period and frequency of cash flows: The Compliant Report must disclose (a) the time period for the calculation; and (b) the frequency of the cash flows used in the calculation. At a minimum, quarterly cash flows must be utilized. Beginning 1/1/20 the minimum time period is monthly.[4]

PR.06.4: Realized IRR end date: The Compliant Report must disclose the ending date of the realized IRR calculation. If final net assets of the Fund/property have not been distributed when the last investment is sold or otherwise disposed, the method used in determining the final distribution and IRR end date must be disclosed.

PR.06.5: Use of subscription lines: When subscription lines are used, the Compliant Report must indicate the date of the first investment of the Fund or SMA and the date of the first capital call.

Required: Closed-end Equity Funds; Recommended: Closed-end Debt Funds and SMAs:

PR.07: Paid-in Capital Multiple (Quarterly): The Paid-in Capital Multiple, also known as the Paid-in Capital to Committed Capital Multiple, gives information regarding how much of the total commitments have been drawn down.

PR.08: Investment Multiple (Quarterly): The Investment Multiple, also known as the Total Value to Paid-in Capital Multiple, provides information regarding the value of the Fund or SMA relative to its cost basis, not taking into consideration the time the capital has been invested.

[4] If a quarterly convention was used previously, the manager must disclose how the quarterly convention was converted to a more frequent convention (e.g., mid-point, weighted average, etc.).

Required: Closed-end Equity Funds; Recommended: SMAs:

PR.09: Realization Multiple (Quarterly): The Realization Multiple, also known as the Cumulative Distributions Paid, (regardless of type) to Paid-in Capital Multiple, measures what portion of the return has actually been returned to the investors.

PR.10: Residual Multiple (Quarterly): The Residual Multiple, also known as the Residual Value to Paid-in Capital Multiple, provides a measure of how much of the return is unrealized.

PR.11: Distributions since-inception (Quarterly): This is the amount of all Distributions Paid (regardless of type) from the inception date of the Fund or SMA through the date of the Compliant Report.

PR.12: Aggregate capital commitments (Quarterly): This is the total amount committed to the Fund or SMA by investors.

Required: Closed-end Equity and Debt Funds; Recommended: SMAs:

PR.13: Since-inception Paid-in Capital (Quarterly): This is equal to the amount of committed capital that has been drawn down since Fund or SMA inception. Paid-in Capital includes distributions that are subsequently recalled by the Fund or SMA and reinvested into the investment Vehicle.

Recommended: All Equity Funds and SMAs:

PR.14: Fund T1 Leverage Yield (Quarterly): The Fund T1 Leverage Yield provides an indication of the percentage of net investment income that may be available to pay current loan balances. Whereas the Fund T1 Leverage Percentage provides a measure of exposure to leverage and is sensitive to changes in value, the Fund T1 Leverage Yield provides an indication of an ability to pay (or cover) loan principal balances when due and is not sensitive to changes in value.

Recommended: All Equity and Debt Funds and SMAs:

PR.15: Weighted average interest rate of Fund T1 Leverage (Quarterly): The weighted average interest rate provides a measure of impact of debt service on income. The amount of leverage used in the calculation must reconcile to Fund T1 Total Leverage (PR.04)

PR.16: Weighted average remaining term of fixed-rate Fund T1 Leverage (Quarterly): Expressed in years and fractional months the weighted average remaining term provides a measure to determine exposure to refinancing risks associated with fixed-rate Fund T1 Leverage. Generally, the classification of a loan as fixed rate debt depends upon what is stipulated in the loan documents without regard to triggers associated with the breach of loan covenants. The portion of the Fund T1 Total Leverage (PR.04) which has a fixed interest rate must be used to calculate the weighted average. A reconciliation of Total Fund T1 Leverage to the amount of Fund T1 Leverage which is fixed-rate debt must be provided when this measure is presented.

PR.17: Weighted average remaining term of floating rate Fund T1 Leverage (Quarterly): Expressed in years and fractional months, the weighted average remaining term provides a measure to determine exposure to refinancing risks associated with floating rate Fund T1 Leverage. Generally, the classification of a loan as

floating rate debt depends upon what is stipulated in the loan documents without regard to triggers associated with the breach of loan covenants. The portion of the T1 Total Leverage (PR.04) which has a floating rate of interest must be used to calculate the weighted average. A reconciliation of Total Fund T1 Leverage to the total amount of T1 leverage which is floating rate debt must be provided when this measure is presented.

PR.18: [not used]

Recommended: Closed-end Equity and Debt Funds only:

PR.19: Unfunded Commitments (Quarterly): This is the difference between Aggregate Capital Commitments and Aggregate Paid-In-Capital, increased by capital returned to investors which can be reinvested (if applicable).

Recommended: Open-end Equity and Debt Funds only:

PR.20: Redemptions for quarter (Quarterly): This is the aggregate amount paid to investor(s) exiting the Open-end Fund during the period.

PR.21: Total Subscribed Commitments (Quarterly): This is the aggregate total dollar amount of contractual capital subscriptions not yet contributed to an Open-end Fund as of the reporting date. The Open-end Fund Compliant Report should indicate what portion of the amount reported is revocable.

PR.22: Total Redemption requests (Quarterly): This is the aggregate total dollar amount of formal requests that have been received from investors to redeem out of an Open-end Fund but which have not been fulfilled, as of the end of the reporting period. The Open-end Fund Compliant Report should indicate what portion of the amount reported is revocable.

Required: Open-end Equity Funds and Closed-end Equity Funds formed in 2020 or thereafter; Recommended in 2023, Required in 2024 and beyond: All Debt Funds:

PR.23: Total Global Expense Ratio (TGER) (Annually):[5] TGER is a global measure of the total fee and expense load of Funds that operate in different regions across the globe. It is calculated by dividing a weighted average GAV by the total Fund fees and costs over the measurement period. Examples of the fees included are: ongoing management fees, transaction- based management fees and performance fees. Vehicle costs are third- party costs which are generally incurred to grow and operate a Fund. TGER is presented as a backward-looking metric using actual fees and costs incurred over a rolling 12-month period and does not include projected or forecasted data. An NAV-based TGER may be reported in addition to TGER and must be clearly labeled as such. In addition, a since-inception based TGER is recommended for Closed-end Funds in order to show the trending of expense burden over a period of time or at any given point within a Fund's lifecycle. A since-inception based TGER must be clearly labeled as such.

[5] See *Total Global Expense Ratio: a globally comparable measure of fees and costs for real estate investment vehicles*, November 2019

For purposes of the calculation of the Total Global Expense Ratio and the Fund T1 Leverage Percentage (PR.05) Gross Assets can be calculated as follows:

Under the Operating Model, GAV is calculated as:

Total balance sheet assets – Joint Venture partner's economic share of total assets.

Under the Non-operating Model, GAV is calculated as:

Total balance sheet assets + Fund Economic Share of Total Joint Venture liabilities + liabilities of consolidated entities.

Additional required disclosures: The following disclosures must accompany the presented elements:

PR.23.1: Use of Rebates: TGER disclosures must indicate whether management fee adjustments including, rebates, fee reduction, fee waivers, and transaction costs are utilized by the Fund (and are therefore included in TGER as a reduction of fees).

PR.23.2: Types of Fees and Costs included in the calculation: TGER disclosures must indicate the types of fees and costs included in TGER. It is important to note that information on fees paid to the managers is captured within related party disclosures in the financial statement footnotes under both the Operating and Non-operating Models (See NCREIF PREA Reporting Standards Fair Value Accounting Policy Manual section 3.10(f)).

PR.23.3: Use of Estimates: TGER disclosures must include a description of the types of estimates utilized in the calculation for TGER including, but not limited to: information not available as of the reporting period; and estimates surrounding GAV (or NAV if NAV is presented).

PR.23.4: Fees paid in lieu of 3rd party services: To the extent that fees are paid to the manager for services that would otherwise be paid to a third party and not fall within TGER costs, such fees must be disclosed.

Recommended: All Debt Funds and SMAs:

PR.24: Financial Leverage Ratio: Financial leverage ratio is the amount of bank borrowing in a lending vehicle, as a percentage of the amount of investor capital. This is calculated by dividing the total amount borrowed into the total investor capital. Sources of financial leverage may be warehouse lines of credit or other fund-level lines of credit.

Recommended: Open-end Debt Funds:

PR.25: Distribution Yield: Distribution Yield measures the amount of cash flow paid to investors by the fund. This is calculated by annualizing the most recent distribution to investors divided by the fund's NAV.

Asset Management

Required: Equity Funds and SMAs:

AM.01: Occupancy level by property type (Quarterly): For those Funds or SMAs with Operating Property, each quarter the Compliant Report must include aggregate occupancy level statistics by property type as of the end of the quarter. For those Funds or SMAs with investments in other Vehicles, each quarter the Compliant Report must include aggregate occupancy statistics of each Vehicle in the Fund or SMA as of the end of the quarter, if this information is provided to the Fund or SMA management. If it is not, the Compliant Report must disclose those Vehicles which do not report occupancy, as well as indicate what percentage of the total Funds or SMAs those Vehicles represent. All Compliant Reports must include disclosure of which property types and Vehicles are included in the statistic and describe the calculation methodology, e.g., whether they are reporting on percentage leased or physical or economic occupancy.

In the event a Fund manager or SMA manager, after using one calculation methodology for reporting purposes, elects to revise that methodology, the Compliant Report is required to include disclosures which describe the change through the annual reporting cycle. In addition, if the occupancy information in the Compliant Report included comparative statistics, then all prior periods presented must be recalculated to the new methodology.

AM.02: Lease Expiration Statistics (Quarterly): For those Funds or SMAs with Operating Property, each quarter the Compliant Report must include aggregate Fund or SMA lease expiration statistics by property type for each of the next five years, by year. Lease expiration statistics are not required for residential, hotel, self-storage and other property types with leases traditionally 1 year or less in duration. For those Funds or SMAs with investments in other Vehicles, each quarter the Compliant Report must include lease expiration statistics for each Vehicle in the Fund or SMA as of the end of the quarter, if this information is provided to the SMA manager. If it is not, the Compliant Report must disclose those Funds which do not report lease expiration statistics and indicate what percentage of the total Fund or SMA those vehicles represent. All Compliant Reports must disclose the property types and Funds included in the statistics and describe the calculation methodology, (e.g., whether they are reporting the lease expirations by square feet or by rent; also, if rent is used, whether it is base rent or total rent).

In the event a Fund manager or SMA manager, after using one calculation methodology for reporting purposes, elects to revise that methodology, the Compliant Report is required to disclose the change through the annual reporting cycle.

Recommended: All Equity Funds and SMAs:

AM.03:Top 10 tenants (Quarterly): For those Funds or SMAs with Operating Property, each quarter the Compliant Report should include the top ten (10) tenants in the Fund or SMA, by annual total rent, as of the end of the reporting period. When reporting Top 10 Tenant information, the Compliant Report must define what is included in annual rent (e.g., base, percentage, escalations, pass through, etc.).

If confidentiality issues prohibit disclosing tenant names, a general description of the business purpose of the tenant will suffice. For those Funds or SMAs with investments in other Vehicles, each quarter the Compliant Report should include a list of the top ten (10) tenants in the Fund or SMA, by annual rent, as of the end of the quarter, if this information is provided to the Fund manager or SMA manager. If the information is not provided, the Compliant Report should disclose which Funds do not report the tenancy information, as well as indicate what percentage of the total Fund or SMA those Vehicles represent.

In the event a Fund manager or SMA manager, after using one calculation methodology for reporting purposes, elects to revise that methodology, the Compliant Report is required to disclose the change through the annual reporting cycle.

Required: All Debt Funds:

AM.04: Loan to Value or Loan to Cost (Quarterly): The loan to value ratio measures the total outstanding principal balance attributable to each investment over the total value of the underlying collateral. Loan-to-cost is a ratio used to compare the sum of the loans used to finance each project to the cost of building each project.

Recommended: All Debt Funds:

AM.05: Weighted Average Interest Rate (Quarterly): The weighted average interest rate is defined as the average interest rates of both fixed and floating rate debt at period end weighted by the outstanding principal balances at period end.

AM.06: Debt Yield (Quarterly): The debt yield measures the expected return to the investor in the event of default by the borrower. This is calculated as Net Operating Income (NOI) divided by the total outstanding loan balance.

AM.07: Debt Service Coverage Ratio (Quarterly): The debt service coverage ratio is used to measure the amount of cash flow from the property/investment's operations that is available to meet annual interest and principal payments on debt. This is calculated as Net Operating Income (NOI) over Debt Service Payments (principal and interest).

Financial Reporting

Note: The NCREIF PREA Reporting Standards Fair Value Accounting Policy Manual contains additional guidance to support the required and recommended financial elements shown below.

Required: All Equity and Debt Funds and SMAs:

FR.01: Condensed Fair Value GAAP-based financial statements (Quarterly): The condensed financial statements, at a minimum, must include: a Statement of Assets and Liabilities or equivalent (e.g., balance sheet); a Statement of Operations or equivalent (e.g., income statement); a Cash Flow Statement; and a Statement of Changes in NAV. This requirement may be fulfilled by using a Fund or SMA primary basis of accounting under GAAP to prepare its financial statements and adding supplemental fair value financial information. Most Open-end Funds may amortize organization costs over a period (typically 5, 10, or 15 years) as described in their governing documents. Investors in these funds understand that for trading NAV purposes such costs will be spread over the specified period as opposed to expensed up front as prescribed by GAAP. This practice is common to Open-End Funds and would not preclude the Open-end fund from meeting this requirement.

FR.02: Fair value GAAP-based financial statements (Annually): The Compliant Report must contain Fair Value GAAP-based Financial Statements that are prepared no less frequently than annually. This requirement can be satisfied using a Fund or SMA primary basis of accounting under GAAP to prepare its financial statements and adding supplemental fair value financial information.

FR.03: Financial statement audits (Annually): An independent financial statement audit of the Fair Value GAAP-based Financial Statements is required for all Funds or SMAs.

FR.04: Schedule of investments: The Schedule of Investments must separately disclose, at a minimum, the following information for all investments. Required or recommended basis and frequency of reporting may differ by account type and is noted for each data element.

FR.04.01: Informational Data Elements

Required Annually: All Equity and Debt Funds, and SMAs, Recommended Quarterly: All Equity Funds and SMAs

- Investment name: The Fund or SMA Identifier.
- Property type: See Portfolio Diversification (PM.06).
- Investment structure: See Portfolio Diversification (PM.06).
- Acquisition date: The year or date acquired by the Fund or SMA.
- Location: If practical, use City/State, Metropolitan Statistical Area, or Country if outside of the United States. For Funds and SMAs which include investments outside of the U.S., the manager should apply professional judgement to report meaningful location diversification (e.g., country, region, etc.).
- Size (unaudited): Use square footage or other appropriate measure based upon the nature of the investment (e.g., number of rooms for hotels; acres for land).

Recommended Annually: All Debt Funds

- Legal Share (Contractual Ownership): If an investment is not wholly owned, the contractual ownership share of the property.

Recommended Quarterly: All Equity Funds and SMAs

- Legal Share (Contractual Ownership): If an investment is not wholly owned, the contractual ownership share of the property.
- Effective Share (Effective Ownership): Also known as Economic Share, a term used to describe the ownership of the Fund's interest in a particular investment based on the current period hypothetical liquidation (i.e., waterfall) calculation. (As used herein, joint venture means any investment which is other than wholly owned). At different points in the life of the investment, the Effective Share may differ from the contractual (i.e., legal or contribution) share for the investment.

FR.04.02: Financial Data Elements

Recommended Annually: Closed-end Equity Funds and SMAs, Recommended Quarterly: Open-end Equity Funds

- Gross Real Estate Value: Ownership value of gross real estate (before leverage). Ownership percentage (legal or effective) used must be disclosed.
- Net Real Estate Value: Ownership value of net real estate (after leverage). Ownership percentage (legal or effective) used must be disclosed.

Recommended Annually: All Equity Funds and SMAs

- TTM NOI: Actual trailing 12-month net operating income for the property. For recently acquired assets, this data element may be annualized for comparability but should be disclosed as such. Not applicable for non-operating assets.

FR.04.03: Performance Data Elements

Recommended Quarterly: Open-end Equity Funds and SMAs

- 1-Year, 3-Year and 5-Year Unlevered Time Weighted Returns with component returns of income, appreciation, and total shown separately.

Recommended Quarterly: Closed-end Equity Funds and SMAs

- Gross Since Inception Internal Rate of Return (IRR) based on investment cash flows to date.
- Gross Total Value to Paid-in-Capital Ratio: (Current Net Asset Value (Residual Value) + Distributions to Date)/Contributions to Date.

FR.04.04: Real Estate Operations Data Elements

Recommended Annually: All Equity Funds and SMAs

- Life Cycle based on NCREIF definitions: Pre-Development, Development, Initial Leasing, Operating, Renovation, Conversion, Expansion.
- Lease Percent: Percentage of the property's net rentable square footage this is under lease obligation at the end of the quarter. It is not relevant whether the space is physically occupied or unoccupied, or whether the tenant is or is not paying rent at the time, only if the footage is leased. *Hotel: Take the average lease percentage by dividing the number of booked rooms nights by number of all available room nights.
- Weighted Average Lease Term (WALT): For Office, Industrial, and Retail assets, current weighted average lease term is calculated by weighting in-place lease agreements, including signed renewals, and calculating the weighted average based on leased space for the property. This data element is not applicable for Hotels, Storage, or Residential assets.

FR.04.05: Leverage Data Elements

Recommended Annually: All Equity Funds and SMAs

- Loan Principal Balance: Outstanding principal balance as of the reporting date. If there is fund-level leverage that is allocated to investments, disclose the amount and the allocation methodology.
- Loan Market Value (if applicable): Market value of the outstanding principal balance as of the reporting date. If there is fund-level leverage that is allocated to investments, disclose the amount and the allocation methodology.
- Loan-to-Value (LTV) Ratio (Principal): Outstanding principal balance divided by Gross Real Estate Value in FR.04.02.
- Loan-to-Value (LTV) Ratio (Market Value) (if applicable): Market value of the outstanding principal balance divided by Gross Real Estate Value in FR.04.02.
- Debt-Service-Coverage-Ratio (DSCR): Net operating income for the period divided by debt service for the period.
- Interest Rate: Stated interest rate on the loan which may be fixed or variable.
- Associated Derivative Type: Examples include swap to fixed, swap to variable, interest rate floor, Fx hedge.
- Derivative Maturity Date (if different): Maturity date of related derivative excluding elective extensions.
- Debt Maturity Date: Maturity date of the loan excluding elective extensions.
- Fully Extended Maturity Date: Maturity date of the loan including available/elective extensions.

FR.04.06: Valuation Data Elements

The valuation data elements below other than fair value assume the property is valued using a discounted cash flow (DCF) approach. If another valuation approach is used, it is recommended to disclose the method of valuation. In the case of an appraisal review where the value remains unchanged, it is recommended you use the appraisal metrics from the last internal or external appraisal and disclose the date the last DCF was performed.

Required Annually: All Equity and Debt Funds, and SMAs, Recommended Quarterly: All Equity Funds and SMAs

- Fair Value: The fair value of the investment as shown on the Fund's or SMA's financial statements. For consolidated joint ventures, the fair value of the investments can be shown at 100% with an accompanying footnote stating the Fund's or SMA's share (legal or effective) of the fair value.

Recommended Quarterly: All Equity Funds and SMAs

- Discount Rate: The rate used to discount all cash flows to calculate the fair value of the property.
- Terminal Rate: The capitalization rate that if applied to the NOI one year after sale of the property results in the projected resale price.
- Going in Cap Rate: The capitalization rate that if applied to the estimated first year NOI for the property (based on actual occupancy, contract rents, etc.) that results in the estimated fair value.
- Three Year Rent Growth: The average annual compound rate of growth projected for market rents over the next three years.

Recommended Annually: Closed-end Funds and SMAs, Recommended Quarterly: Open-end Funds

- Ten Year Rent Growth: The average annual compound rate of growth projected for market rents over the next ten years.

FR.04.07: Business Plan Data Elements

Recommended Annually: Closed-end Funds and SMAs

- Projected Exit Date: Anticipated sale or other disposition date of the asset/investment based on the most recent business plan.
- Projected IRR: Since inception internal rate of return using actual cash flows as of the reporting date and projected cash flows until anticipated disposition.

Valuation[6]

Note: The NCREIF PREA Reporting Standards Valuation Manual contains additional guidance to support the required and recommended valuation elements shown below.

Required: All Equity and Debt Funds and SMAs:

VA.01: Valuation statement (Annually): In addition to the required disclosures under GAAP for fair value measurements, the Compliant Report must contain a statement that the Fund or SMA real estate investments are valued in accordance with the Reporting Standards Property Valuation Standards. Material changes to the Valuation Policy must be disclosed.

VA.02: Valuation Policy: A written Valuation Policy, including methods and procedures, must be maintained and consistently applied. The Valuation Policy must:

- Include definitions of internal roles and responsibilities for the execution and governance of the valuation process;
- Describe the frequency of internal and external valuations;
- Describe independent valuation process oversight (internal or third party) including the review and approval of final values, as well as diligence applied to appraiser selection (where relevant);
- Identify and source (or define) the relevant applicable professional standards of the valuation process;
- State whether debt liabilities are valued;
- Address value acceptance and dispute resolution procedures.

Real estate and debt investments must be valued on a quarterly basis. Quarterly valuations can be completed either internally or externally.

VA.03: Internal valuations: Valuations prepared by internal staff should include appropriate research and analysis to result in a credible conclusion. These internal valuations must be prepared in a transparent environment, prepared or supervised by competent professionals with appropriate experience, and documented in a manner sufficient to permit an audit of results whereby steps leading to specific valuation outcomes can be verified.

In addition, the internal staff must use appropriate, established valuation techniques for the internal valuation.

Required: Open-end Equity Funds only:

VA.04: External valuations: Each real estate investment must be valued by an external, independent, professionally-designated property appraiser at least once every 12 months. External valuations completed by external, independent professionally-designated property appraiser must be performed in accordance

[6] As used herein, the term "valuation" is synonymous with USPAP's definition of "appraisal" which is "the act or process of developing an opinion of value".

with USPAP for U.S. investments and either the International Valuation Standards as set forth by the International Valuation Standards Committee (IVSC) or the appropriate authoritative standard in the country in which the property exists.

Differences between external valuation engaged by or on behalf of the reporting entity and the valuation conclusion used in reporting, and the reason for the differences, must be documented.

Required: Closed-end Equity Funds and SMAs:

VA.05: External valuation: Each real estate investment must be valued by an external, independent, professionally-designated property appraiser at a frequency that is consistent with requirements stipulated by the Closed-end Fund or SMA governing documents. To the extent the governing documents do not require external valuations, this fact must be explicitly disclosed to potential investors prior to the time of subscription and material changes must be reported at least annually thereafter. (Note that annual fair value audits of funds and SMAs are required per FR.03.)[7]

External valuations completed by independent third-party appraisers should be performed in accordance with USPAP for U.S. investments and either the International Valuation Standards as set forth by the International Valuation Standards Committee (IVSC) or the appropriate authoritative standard in the country in which the property exists.

Differences between an external valuation engaged by or on behalf of the reporting entity and the valuation conclusion used in reporting for that period, and the reason for the differences, must be documented.

Recommended: Equity SMAs only:

VA.06: External valuation: It is recommended that each real estate investment be valued by an external, independent, professionally-designated property appraiser at least once every 36 months.

External valuations completed by independent third-party appraisers must be performed in accordance with USPAP for U.S. investments and either the International Valuation Standards as set forth by the International Valuation Standards Committee (IVSC) or the appropriate authoritative standard in the country in which the property exists.

Differences between an external valuation engaged by or on behalf of the reporting entity and the valuation conclusion used in reporting, and the reason for the differences, must be documented.

Recommended: All Debt Funds and SMAs:

VA.07: External valuation of collateral at origination: It is recommended that the real estate collateral used for each debt investment be valued by an external, independent, professionally-designated property appraiser at the time of origination.

[7] For clarification. Added December 2020.

External valuations completed by independent third-party appraisers must be performed in accordance with USPAP for U.S. investments and either the International Valuation Standards as set forth by the International Valuation Standards Committee (IVSC) or the appropriate authoritative standard in the country in which the property exists.

Differences between an external valuation engaged by or on behalf of the reporting entity and the valuation conclusion used in reporting, and the reason for the differences, must be documented.

COMPLIANCE

Introduction

Compliance with the Reporting Standards improves transparency in real estate valuation, financial and performance reporting, and the ability for investors, consultants, and service providers to analyze and compare investments, Funds and SMAs.

Compliance with the Reporting Standards is voluntary and is measured on a Fund and SMA basis. Management must take all necessary steps to ensure that a Compliant Report has satisfied the required Reporting Standards before claiming compliance with such standards. To assist reporting preparers and users with determining compliance, separate Reporting Standards Checklists for real estate and debt investments made through Open-end Funds, Closed-end Funds and SMAs have been created and are available in Handbook Volume II and also on the Reporting Standards web site.

Statement of compliance

The Reporting Standards set forth requirements and recommendations to be included in Compliant Reporting. For reporting to be compliant with the Reporting Standards, it must contain all of the required elements of the Reporting Standards and be distributed to all investors in the Fund or SMA. In certain situations, and based on facts and circumstances, adherence to the recommendations of the Reporting Standards is both appropriate and encouraged. Periodic reporting that contains all of the required elements may include the following compliance statement:

- The ABC Fund (or SMA) report is prepared and presented in compliance with the Reporting Standards for the period ending (insert date).

Statement of Compliance has been added to the Reporting Standards Checklists for equity and debt investments.

APPENDIX B: FEEDBACK RECEIVED AND SUPPORT FOR CONCLUSIONS

Summary of Themes from the Asset Level Reporting Exposure Draft Responses

Below is a summary of feedback received during the public comment period from various stakeholders on the proposed expansion of FR.04 "Schedule of Investments" within the NCREIF PREA Reporting Standards. The responses herein aligned with the feedback received during the NCREIF Committee review process prior to the public comment period. The responses reveal a mix of support, concerns, and suggested modifications regarding the increase in reporting frequency and additional data elements being proposed.

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1. **Mixed Support for Expanding Asset and Investment Reporting**

- Some respondents support expanding FR.04 to increase transparency and consistency, stating that many of the proposed data elements are already included in their existing reporting.
- Others oppose expansion, citing administrative burden, potential user comprehension challenges, and the risk of unnecessary complexity.
- Quarterly reporting vs. annual reporting remains a contentious issue, with concerns that more frequent reporting could lead to valuation volatility (in property tax assessment and tax obligation) and increased costs.
- Some respondents suggested including asset level reporting in a separate section of its own instead of expanding FR.04.

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2. **Key Concerns About Proprietary and Competitive Risks**

- Many respondents are concerned about disclosing sensitive valuation information.
- Some believe sharing projected business plan data could expose their strategic plans to competitors.
- A suggestion was made to mask property names and locations to mitigate negotiation risks.

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3. **Opposition to Specific Data Elements Being Required**

Several data elements faced pushback due to limited applicability or difficulty in standardization:

- **Valuation Metrics** – Discount Rate, Terminal Rate, Going-in Cap Rate, Rent Growth Metrics (3-Year & 10-Year) were not widely supported due to the perception that they could compromise the independence of valuation practices.

- **Performance Metrics** – NET IRR, TVPI, and Net TWR faced opposition since fees and expenses are applied at the fund level, not the asset level, making calculations complex and inconsistent.
- **Business Plan Data** – Many respondents disagreed with requiring Projected Exit Dates and Projected IRRs, arguing that these figures change frequently and may not be relevant over time.

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4. Suggested Modifications and Alternative Approaches

- Some respondents suggested that Leased % and Contractual Ownership % should be prioritized for standardization as they provide fundamental transparency into real estate operations.
- A recommendation was made to provide asset level reporting in a supplemental file format, rather than embedding it in quarterly financial reports. This recommendation points to the need for repeated clarification that an Account Report (i.e., Fund Report) includes all information provided regardless of format, media, or delivery mechanisms.
- It was proposed that certain metrics (e.g., valuation details) should be provided only to investors upon request rather than made broadly available.
- Many suggested reducing the number of data elements to a more reasonable amount reflecting critical information needed.

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5. System and Compliance Challenges

- Some asset managers noted system limitations that would make compliance costly and time-consuming.
- Debt investment reporting was flagged as especially difficult, as many firms do not currently track debt data at the asset level.
- There was broad agreement that any changes should remain recommendations rather than requirements, allowing firms to implement them progressively rather than mandating immediate adoption.

Conclusion: A Need for Flexibility and Phased Implementation

The overall feedback suggests cautious support for more standardized asset and investment level reporting, but concerns persist about data security, reporting burdens, and valuation complexities. Stakeholders generally favor a gradual, flexible approach, with some elements remaining optional (recommended) rather than mandatory (required). The task force will likely need to balance transparency goals with practical implementation challenges to ensure widespread adoption.

Response to Feedback Received

The Project Task Force along with the Reporting Standards Council and Board greatly appreciate the volume of feedback received. Input from all industry stakeholders is a vital component of the governance process, ensuring that the Reporting Standards remain both relevant and responsive to the evolving needs of the industry. Key changes made to the proposal in direct response to feedback received include:

- **Valuation Data Elements** – Three data elements have been removed to better align with the valuation data collected by NCREIF and presented in the Valuation Metrics Report for the NFI-ODCE. This alignment is intended to minimize administrative burden for reporting entities already submitting data to NCREIF, while also enhancing the utility of the reported data by enabling meaningful benchmarking against an established industry report.

- **Performance Data Elements** – Net performance data elements have been removed to avoid complex and potentially inconsistent allocation of fund fees and expenses to the asset or investment level.

- **Debt Investment Reporting** - The debt investment data elements have been temporarily removed in acknowledgment of the current challenges associated with reporting, as many funds do not yet track debt data at the asset level. These elements may be revisited as industry practices mature in this area. It is also important to note that no changes are being made currently to the required or recommended data elements for debt funds. Given that the debt fund space is relatively new to the Reporting Standards—and in light of the forthcoming release of a dedicated Debt Fund Manual and the development of Debt Fund Indices by NCREIF—it was deemed prudent to refrain from introducing additional data elements at this stage.

- **Data Element Reduction** – In recognition of the need to balance transparency objectives with practical implementation challenges, the total number of data elements has been reduced by 32%.

- **Reporting Frequency and Additional Data Elements** – Changes related to reporting frequency and the introduction of new data elements have been designated as *recommended*. These recommendations are intended to reflect situational best practices and should be applied based on relevance and feasibility.

APPENDIX C: QUESTIONS POSED FOR PUBLIC COMMENT

Questions posed in the Exposure Draft for consideration and response

1. Do you support the expansion of FR.04 as proposed?
   a. Yes
   b. No
   c. Please explain your answer

2. Are there any elements proposed that should be removed from the expansion of FR.04? If yes, please list elements and reason for suggested removal.

3. Do you think we should prioritize any of the elements for review as REQUIRED elements in the future? If yes, please list the elements.

4. If these elements were required in the future, would it impact your ability to comply with the standards?

In addition to responding to these questions, please provide general feedback on this proposal, including items you support.

APPENDIX D: EXCEL-BASED COMPANION TO ASSET AND INVESTMENT REPORTING

NCREIF PREA Reporting Standards
Asset and Investment Level Reporting Checklist for Adopting Release

APPENDIX D

Key:
- Frequency - Quarterly = Q, Annually = A
- Standard - Required = R, Recommended = Rc
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- Change to Frequency of Existing Standard
- Change to Existing Standard (new data element not currently required or recommended)
- Already Required on an Annual Basis under RS FR.04

Category	Element	Element Description	Note	References	Open End	Closed End	SMA	Debt Fund
FR.04.01 Informational Data Elements								
	Investment name	The Fund or SMA Identifier.		FR.04	R/A & Rc/Q	R/A & Rc/Q	R/A & Rc/Q	R/A
	Property Type	See Portfolio Diversification (PM.06).		FR.04/PM.06	R/A & Rc/Q	R/A & Rc/Q	R/A & Rc/Q	R/A
	Investment structure	Investment structure: See Portfolio Diversification (PM.06).		FR.04/PM.06	R/A & Rc/Q	R/A & Rc/Q	R/A & Rc/Q	R/A
	Acquisition date	The year or date acquired by the Fund or SMA		FR.04	R/A & Rc/Q	R/A & Rc/Q	R/A & Rc/Q	R/A
	Location	If practical, use City/State, Metropolitan Statistical Area, or Country if outside of the United States. For Funds and SMAs which include investments outside of the U.S., the manager should apply professional judgement to report meaningful location diversification (e.g., country, region, etc.).		FR.04	R/A & Rc/Q	R/A & Rc/Q	R/A & Rc/Q	R/A
	Legal Share (Contractual Ownership)	If investment is not wholly owned, contractual Ownership share of the property		NCREIF Contributor Manual (NPI)	Rc/Q	Rc/Q	Rc/Q	Rc/A
	Effective Share (Effective Ownership)	Also known as Economic Share, a term used to describe the ownership of the Fund's interest in a particular investment based on the current period hypothetical liquidation (i.e., waterfall) calculation. (As used herein, joint venture means any investments which is other than wholly owned). At different points in the life of the investment, the Effective Share may differ from the contractual (i.e., legal or contribution) share for the investment.		Global Definitions Database	Rc/Q	Rc/Q	Rc/Q	NR
	Size	Use square footage or other appropriate measure based upon the nature of the investment (e.g., number of rooms for hotels; acres for land)		FR.04	R/A & Rc/Q	R/A & Rc/Q	R/A & Rc/Q	R/A
FR.04.02 Financial Data Elements								
	Gross Real Estate Value	Ownership value of gross real estate (before leverage). Ownership percentage (legal or effective) used must be disclosed.			Rc/Q	Rc/A	Rc/A	NR
	Net Real Estate Value	Ownership value of net real estate (after leverage). Ownership percentage (legal or effective) used must be disclosed.			Rc/Q	Rc/A	Rc/A	NR
	TTM NOI	Actual trailing 12-month net operating income for the property. For recently acquired assets, this data element may be annualized for comparability but should be disclosed as such. Not applicable for non-operating assets.			Rc/A	Rc/A	Rc/A	NR
FR.04.03 Performance Data Elements								

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Category	Element	Element Description	Note	References	Open End	Closed End	SMA	Debt Fund
	Gross Since Inception IRR	Internal rate of return based on investment cash flows to date.		RS Volume II Performance Manual	NR	Rc/Q	Rc/Q	NR
	Gross TVPI	(Current Net Asset Value (Residual Value) + Distributions to date)/Contributions to date		RS Volume II Performance Manual	NR	Rc/Q	Rc/Q	NR
	1-Year, 3-Year and 5-Year Gross and Net Time Weighted Return	Unlevered Time Weighted Returns for each time period with component returns of income, appreciation, and total shown separately.		RS Volume II Performance Manual	Rc/Q	NR	Rc/Q	NR
FR.04.04 Real Estate Operations Data Elements								
	Life Cycle	Based on NCREIF Definitions: Pre-Development, Development, Initial Leasing, Operating, Renovation, Conversion, Expansion.		NCREIF Contributor Manual (NPI)	Rc/A	Rc/A	Rc/A	NR
	Lease Percent	Percentage of the property's net rentable square footage that is under lease obligation at the end of the quarter. It is not relevant whether the space is occupied or unoccupied, or whether the tenant is or is not paying rent at the time, only if the footage is leased. *Hotel: Take the average lease percentage (by dividing number of booked room nights by number of all available room nights).		NCREIF Contributor Manual (NPI)	Rc/A	Rc/A	Rc/A	NR
	Weighted Average Lease Term (WALT)	For Office, Industrial and Retail assets, current weighted average lease term calculated by weighting in-place lease agreements, including signed renewals, and calculating a weighted average based on leased space for the property. This data element is not applicable for Hotels, Storage, Residential assets.			Rc/A	Rc/A	Rc/A	NR
FR.04.05 Leverage Data Elements								
	Loan Principal Balance	Outstanding principal balance as of the reporting date. If there is fund-level leverage that is allocated to investments, disclose the amount and the allocation methodology.		NCREIF Contributor Manual (NPI)	Rc/A	Rc/A	Rc/A	NR
	Loan Market Value (if applicable)	Market value of the outstanding principal balance of all debt outstanding on the property as of the reporting date. If there is fund-level leverage that is allocated to investments, disclose the amount and the allocation methodology.		NCREIF Contributor Manual (NPI)	Rc/A	Rc/A	Rc/A	NR

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Category	Element	Element Description	Note	References	Open End	Closed End	SMA	Debt Fund
	Loan-to-value (LTV) Ratio (Principal)	Outstanding principal balance divided by Gross Real Estate Value in FR.04.02.			Rc/A	Rc/A	Rc/A	NR
	Loan-to-value (LTV) Ratio (Market Value) (if applicable)	Market value o fthe outstanding principal balance divided by Gross Real Estate Value in FR.04.02.			Rc/A	Rc/A	Rc/A	NR
	Debt-Service-Coverage-Ratio (DSCR)	Net operating income for the period divided by debt service for the period.			Rc/A	Rc/A	Rc/A	NR
	Interest Rate	Stated interest rate on the loan which may be fixed or variable.			Rc/A	Rc/A	Rc/A	NR
	Associated Derivative Type	Examples include swap to fixed, swap to variable, interest cap, interest rate floor, Fx hedge.			Rc/A	Rc/A	Rc/A	NR
	Derivative Maturity date (if different)	Maturity Date of related derivative excluding elective extensions.			Rc/A	Rc/A	Rc/A	NR
	Debt Maturity Date	Maturity Date of Loan excluding elective extensions			Rc/A	Rc/A	Rc/A	NR
	Fully Extended Maturity Date	Maturity Date of Loan including all available/elective extensions			Rc/A	Rc/A	Rc/A	NR
FR.04.06 Valuation Data Elements								
	Fair Value	The fair value of the investment as shown in the Fund's or SMA's financial statements. For consolidated joint ventures, the fair value of the investments can be shown at 100% with an accompanying footnote stating the Fund's or SMA's share (legal or effective) of the fair value.		FR.04	R/A & Rc/Q	R/A & Rc/Q	R/A & Rc/Q	R/A
	Discount Rate	The rate used to discount all cash flows to calculate the fair value of the property.	1	NCREIF Contributor Manual (NPI)	Rc/Q	Rc/Q	Rc/Q	NR
	Terminal Rate	The cap rate that if applied to the NOI one year after sale of the property results in the projected resale price.	1	NCREIF Contributor Manual (NPI)	Rc/Q	Rc/Q	Rc/Q	NR
	Going in Cap Rate	The cap rate that if applied to the estimated first year NOI for the property (based on actual occupancy, contract rents, etc.), results in the estimated fair value.	1	NCREIF Contributor Manual (NPI)	Rc/Q	Rc/Q	Rc/Q	NR
	Three Year Rent Growth	The average annual compound rate of growth projected for market rents over the next 3 years.	1	NCREIF Contributor Manual (NPI)	Rc/Q	Rc/Q	Rc/Q	NR
	Ten Year Rent Growth	The average annual compound rate of growth projected for market rents over the next 10 years.	1	NCREIF Contributor Manual (NPI)	Rc/Q	Rc/A	Rc/A	NR

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Category	Element	Element Description	Note	References	Open End	Closed End	SMA	Debt Fund
FR.04.07 Business Plan Data Elements								
	Projected Exit Date	Anticipated Sale or other disposition date of the asset/investment based on the most recent business plan.			NR	Rc/A	Rc/A	NR
	Projected IRR	Since inception IRR using actual cash flows as of the reporting date and projected cash until anticipated disposition.			NR	Rc/A	Rc/A	NR

Notes

1 Assumes the property is valued using a discounted cash flow (DCF) approach. If another valuation approach is used, it is recommended to disclose the method of valuation. In the case of an appraisal review where the value remains unchanged, it is recommended you use the appraisal metrics from the last internal or external appraisal and disclose the date the last DCF was performed.