

HANDBOOK VOLUME I



NCREIF PREA
Reporting Standards

Updated

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NCREIF

PREA
pension real estate association

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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ACKNOWLEDGEMENTS

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:	Quarterly	Required	All	PM.06
	- Investment/property type - Region/location - Nature of investment (life cycle) - Investment structure				
	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:	Quarterly	Required	All	PM.06
	- Investment/property type - Region/location - Nature of investment (life cycle) - Debt type - Interest rate type				
	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
Asset management	Financial leverage ratio	Quarterly	Recommended	All	PR.24
	Distribution yield	Quarterly	Recommended	Open-end	PR.25
	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	

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 diversification¹ (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 2³ 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.

Valuation⁶

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.