Performance Measurement Committee

August 12th, 2026

NCREIF
National Council of Real Estate Investment Fiduciaries

PMC Agenda

- Introduction
- Attribution Task Force Update
- Performance and Risk Manual Task Force Update
- Live Polling Questions
- Conclusion

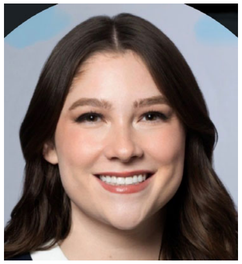
Performance Measurement Committee Leadership 2026

Chairs

Samantha King
Executive Director
JP Morgan

David DiPaolo
Senior Vice President
Clarion Partners

Vice-Chairs



Kim Everaerts
Vice President
Walton Street

Amanda Carillo
Head of Americas Analytics
CBRE Investment Management

Today's Presenters

Mike Amthor
Director
Altus Group

Joe Sorrentino
Senior Vice President
Clarion Partners

Rosellen Bounds
Managing Director
ACA Group

Attribution Task Force

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PERFORMANCE MEASUREMENT

ATTRIBUTION WHITEPAPER TASK FORCE/PERF. & RISK RS MANUAL

Members:

Joe Sorrentino – Clarion Partners

Amanda Carillo- CBRE Investment Management

Matthew Gilbert- CBRE Investment Management

Mike Amthor- Altus Group

Becky Klein – Principal

Joshua Rome - Nuveen

1. Attribution Task force- Performance and Risk Manual Update

Task: Update Reporting Standards performance attribution and risk sections within broader Performance and Risk Manual. Our task force prioritized this exercise before finishing/continuing work on the white paper so that the audience would have a clear place to see definitions/terms that the white paper would be referencing

- Section 5- Measures of Dispersion /Risk
  - *Defined Risk Measurement in PE Real Estate*
  - *Define key measures of risk & dispersion*
  - *Risk ratios*
    - *(i.e Sharpe/Treynor/Information/Sortino)*
  - *Added other KPIs utilized across the industry*

- Section 7- Performance Attribution
  - *Defined Levels of Attribution*
    - *Property/Portfolio/Fund Level*
  - *Attribution Methodology*
    - *(i.e. Brinson Fachler/ Brinson Hood Beebower)*
  - *Contribution to Return*
  - *Income/Appreciation decomposition*
  - *Underwriting vs. Actuals*

				We are here	Next steps
Phase 1: Committee sought clarity on issue	Phase 2: Divided up sections and added materials we felt were appropriate	Phase 2: Each member input their respective sections in a shared document with tracked changes	Phase 2: Review all consolidated sections	Phase 2: Draft and review final findings, distribute for feedback	Phase 3: Finalize Risk portion for manual for approval/broader incorporation

2. Attribution Task force- Attribution White Paper

Mission: Deliver in depth insights into the innovative ways General Partners (GPs) are leveraging attribution to optimize the investment process, thereby driving more informed decision-making and superior investment outcomes.   White paper is still the end goal but paused efforts here to focus on the Manual work first

- Open End Funds
  - *Breakdown of Total Return: Income and Capital*
  - *Income Decomposition*
  - *Capital Decomposition*
  - *Absolute & Relative Contribution to Return*
  - *Allocation Score*
  - *Selection Score*
- Closed End Funds
  - *Contribution to IRR*
  - *NOI Bridge*
  - *PMEs*
  - *Underwriting vs. Actuals*
- Best Practices
  - *Technology*
  - *Methodology*

		We are here	Next steps		
Phase 1: Committee sought clarity on issue	Phase 2: Determined the scope, Information gathering	Phase 2: Seek Feedback, From Membership through Survey	Phase 2: Analysis	Phase 2: Draft and review final findings, distribute for feedback	Phase 5: White Paper / Discussion Paper Recommendation to board, report back etc…

RS Performance and Risk Manual Review

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Presented by the RS Performance Manual Review Task Force

Rosellen Bounds from ACA Group will provide an update regarding the RS Performance Manual Review Task Force

Performance and Risk
NCREIF PREA Reporting Standards

reportingstandards.info

- Goal: Have the constituency, performance measurement review this for potential comment to ensure it remains current and serves as a guide in promoting consistency across the industry.
- How: 102 pages; 7 major topics covered (excluding the appendix)
- Why?
    - Hasn't had a thorough review for a few years and needed to incorporate guidance that has been written and approved through white papers and discussion papers over the years.
    - Needs have changed in areas that were not covered previously.
- What: Organized for groups to cover sections through initial review, discussion, and then update

Task Force Members

- Rosellen Bounds — Managing Director, ACA Group
- Amanda Carrillo — Head of Americas Analytics, CBRE Investment Management
- Joe D'Alessandro — Director of Real Estate Performance, NCREIF
- Paul D'Elisa — Senior Vice President, Sentinel Real Estate
- Kim Everaerts — Vice President, Walton Street Capital
- Aaron Ibarra Salgado — Portfolio Management- Real Estate, Property Reserve
- Jan Johnson — Director Business Development, L&B Realty Advisors
- Manjula Kasturi — Senior Director, CBRE Investment Management
- Samantha King — Executive Director, JP Morgan
- Jamie Kingsley — Data Governance and Reporting Standards Director, NCREIF
- Maritza Matlosz — Senior Director, MetLife Investment Management
- Lydia Nettey — Senior Principal Consultant, ACA Group
- Diane Wild — Managing Director, LaSalle Investment Management

Review Plan

- Introduction
  - General Introduction
- Section 1 – Time-Weighted Returns
  - 1.1 General Information
  - 1.2 Fund Level TWR
  - 1.3 Investment Level TWR
  - 1.4 Property Level TWR
  - 1.5 Alternative Component TWR Calculations
- Section 2 – Internal Rate of Return
  - 2.1 General Information
  - 2.2 Fund Level IRR
  - 2.3 Investment Level IRR
  - 2.4 Property Level IRR
- Section 3 – Equity Multiples
  - 3.1 Overview
  - 3.2 Commonly Used Multiples
  - 3.3 Before-fee vs. After-fee Multiples
- Section 4 – Total Global Expenses Ratio (TGER)
  - 4.1 Summary
  - 4.2 Calculation
  - 4.3 Disclosures
  - 4.4 Estimated TGER for Non-operating Model Reporters

Review Plan

- Section 5 – Measures of Dispersion and Risk
  - 5.1 Overview
  - 5.2 High/Low
  - 5.3 Interquartile Range
  - 5.4 Standard Deviation
  - 5.5 Risk Ratios
- Section 6 – Leverage
  - 6.1 Overview
  - 6.2 Defining Leverage
  - 6.3 Fund Level Risk Measures
  - 6.4 Investment Level and Property Level Risk Measures
- Section 7 – Performance Attribution
  - 7.1 Overview
  - 7.2 Equity Attribution
  - 7.3 Brinson-Fachler Model with Interaction Effect
  - 7.4 Brinson-Fachler Model without Interaction Effect
  - 7.5 Contribution/Absolute Attribution
- Appendices
  - A1 Formulas
  - A2 Detailed Fee and Cost Matrix for TGER
  - A3 Calculation of GAV and T1 Leverage
  - A4 Sample Performance Measurement Disclosures
  - A5 Performance and Risk Measurement Information Elements
  - A6 Sample Presentations / TWR Partial Period Examples

Additions

Section Ref #	Topic	Description
1.02	Internal Rate of Return	Investment & Property Level
1.01	Time Weighted Return	Investment level returns
1.01	Time Weighted Return	ODCE - how financial model impacts benchmarking to component returns
Add	Performance Introduction	Comparison of TWR and IRR - definitions, when is most appropriate to use, can add graphics and information from NCREIF Academy classes. JK can provide language and graphics.
	Organization	JK comments noted in the manual. Consider combining narrative language with formulas to provide comprehensive information. Perhaps add appendix with formulas only for quick reference.
	Reporting Standards references sections	Reconsider presentation. Perhaps include checklist as appendix.
		Add Appendices with formulas, industry guidance (RS Checklist) and definitions of metrics presented throughout the RS (JK note - instead of putting definitions, we should point or link to GDD.)
	Multiples	Need to review TPVI denominator for property level. Looks like it changed from prior version and may be incorrect. Perhaps it was a copy and paste error?
	Subscription facilities section	Need to update to include definition of subscription-backed credit facility from NCREIF Academy that is now in the GDD.
	IRR	"Sample calculations of gross and net IRR are included in the Background and Discussion section." is included in the formula section but not contained in the background and discussion section that I can find. No talk of reversion values at the reporting date either. We should add. There is a sample table calculation, but it addresses from a walk forward perspective and not really indicative of common practice or what you might see in common practice.

Additions (continued)

Section Ref #	Topic	Description
		Create an outline of all recommended changes to the RS
		For PMC, red line of changes to Perfromance & Risk manual
		SEC Marketing Rule reference/ point to other resources
	TWR	Expand Dividend Yield vs. Distribution Yield section
	Attribution	Significantly expand Overview, Definitions, and Practical Application
	Attribution	Include additional Attribution metrics such as Contribution to Relative
	Attribution	Return, NOI Bridge, NOI Decomposition, Capital Decomposition, etc.
	MWR/IRR	Carried Interest language - incetive fee, carried interest, promote etc.
		Contributions / Distributions definitions
	Leverage	Concensus on debt and leverage yields with committee members and consultants
	Money Weighted Returns	MOIC vs TVPI
	Money Weighted Returns	Unrealized/ Realized, w and w/o impact of LOCs
	Time weighted Returns	Open-end funds, subscriptions, redemptions, distribution vs. redemption
	Time weighted Returns	Performance for under water assets (negative equity)
		Distribution vs Negative Contribution

Next Steps

- Continue the weekly meetings for the various sections that task force members have signed up for updating
- Conduct review of updated sections in subgroups
- Host series of webexes to allow discussion around sections that have new info
- Provide to the PMC membership for comment/review
- Follow required Review Process

Live Polling Questions

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General Polling Question # 1

What is your primary role within your organization?

a. Performance Measurement & Analytics

b. Accounting & Finance

c. Valuation

d. Technology & Data Management

e. Portfolio Management

General Polling Question # 2

Which topic should PMC prioritize for future sessions?

a. Benchmarking & Attribution

b. Reporting Standards & Manual Topics

c. Performance Reporting Best Practices

d. Risk Measurement & Attribution

e. Debt Fund Performance Measurement

General Polling Question # 3

How likely are you to participate in regular PMC calls?

a. Highly Likely

b. Somewhat Likely

c. Occasionally

d. Unlikely

Future of Performance Measurement Polling Question # 1

Which skill will be most important for performance professionals in 5 years?

a. Attribution & Analytical Expertise

b. Methodology & Standards Knowledge

c. AI & Technology Literacy

d. Data Governance & Validation

e. Communication & Storytelling

Future of Performance Measurement Polling Question # 2

How has AI and automation impacted your role in the past two years?

a. Significant Impact

b. Moderate Impact

c. Limited Impact

d. No Meaningful Impact

Future of Performance Measurement Polling Question # 3

Which AI use case provides the most value to your team today?

a. Performance Attribution Analysis

b. Client Reporting

c. Workflow Automation

d. Data Validation & Quality Control

e. Research & Knowledge Management

Conclusion

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Thank you for joining us today!