



## PERS Board of Trustees Meeting Materials

**The meetings for Wednesday, April 24, 2024, are listed below.**

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materials for each of the listed meetings.*

[Claims Committee](#)

[Legislative Committee](#)

[Administrative Committee](#)

[Board Meeting](#)

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**Board Members:**

Ms. Kim Hanna, *Board Chair*  
Ms. Kelly Breland, *Board Vice Chair*  
Mr. Bill Benson  
Mr. George Dale  
Mr. Chris Graham

Mr. Chris Howard  
Dr. Randy McCoy  
Treasurer David McRae  
Dr. Brian Rutledge  
Dr. Jay Smith



## Claims Committee Meeting Agenda

*Wednesday, April 24, 2024*

*10:00 A.M.*

- I. Update on Delinquent Contributions – *Jefferson County Hospital***  
*(Intended Outcome – Certification of Delinquencies)*
- II. Other**

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### Claims

#### Committee Members:

Mr. Bill Benson *Committee Chair*  
Mr. George Dale  
Mr. Chris Howard  
Dr. Randy McCoy

Ms. Kim Hanna, *Board Chair*



# Legislative Committee Meeting Agenda

Wednesday, April 24, 2024

10:15 A.M.

(or immediately following the Claims Committee)

## I. Update on Legislation for 2024

*(To Be Determined)*

## II. Other

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### Legislative

#### Committee Members:

Mr. George Dale, *Committee Chair*  
Mr. Kelly Breland  
Dr. Jay Smith  
Mr. Chris Graham  
State Treasurer David McRae  
Dr. Brian Rutledge

Ms. Kim Hanna, *Board Chair*

Bill	Author	Committee	System	Description	Details	Impact	Status
<a href="#">HB 1618</a>	<a href="#">Clay Deweese (R)</a>	Appropriations C	PERS	PERS; define "instrumentality" for purpose of PERS laws and include health care collaboratives in the definition.	Defines "Instrumentality" for the purpose of PERS using the definition found in sections 25-11-5 and 25-11-103, which provides, "the term "instrumentality," when referring to an instrumentality of the state or political subdivision, includes only a juristic entity which is legally separate and distinct from the state or such subdivision and whose employees are not by virtue of their relation to such entity employees of the state or such subdivision." Also includes health care collaborative in the definition. Amends section 25-11-127 to add that a retiree may work for a collaborative after a 90-day break without limitations. Senate floor amendment added Sections 25-11-126 and 37-19-7 to include teacher reemployment language from SB 2685. Also added Section 25-11-123 to freeze the PERS employer contribution rate, give sole authority to the legislature for implementing any future employer rate increases, and require the PERS Board to provide at least 2 assessments from actuaries independent from each other and PERS when making any recommendations to the legislature to adjust the employer contribution rate. Brings forward section 25-11-105, which is the PERS membership section.	Defines health care collaboratives as separate instrumentalities of the state that may choose to participate in PERS (or may choose not to participate). Retirees may work for collaboratives without limitations if the instrumentality chooses not to participate in PERS. Senate amendment added teacher reemployment and PERS employer contribution rate freeze.	02/19 (H) Referred to Appropriations C; 02/27 (H) Title Suff Do Pass; 03/06 (H) Passed; 03/07 (H) Transmitted To Senate; 03/22 (S) Referred to Finance; 04/02 (S) Title Suff Do Pass As Amended; 04/09 (S) Passed as Amended; 04/11 (S) Returned for Concurrence; 04/15 (H) Decline to Concur/Invite Conf; 04/16 (S) Conferees Named: Deweese, Read, Creekmore; 04/18 (S) Conferees Named: Harkins, Johnson, Parker
<a href="#">HB 1818</a>	<a href="#">Sam Mims</a>	Appropriations D; Appropriations A	PERS	Appropriation; Public Employees' Retirement System.	FY 2025 PERS Appropriation. Senate Amendment: 167 Permanent Positions, \$19,645,422.00, including up to \$3,538,000.00 for maintaining the computer system and up to \$300,000 for building maintenance. As a condition of expending the appropriated funds, PERS is required to purchase equipment to live webcast Board meetings, live webcast and record all Board meetings, and archive footage or a weblink to the archived footage within 48 hours of the meeting.	PERS FY 2025 Budget	03/12 (H) Referred To Appropriations D, Appropriations A; 03/13 (H) Title Suff Do Pass; 03/14 (H) Passed; 03/21 (S) Referred to Appropriations; 04/11 (S) Passed as Amended; 04/12 (S) Returned for Concurrence; 04/15 (H) Decline to Concur/Invite Conference; 04/15 (H) Conferees Named: Mims, Read, Rushing; 04/15 (S) Conferees Named: Hopson, Parker, McLendon



SENATE BILLS							
<a href="#">SB 2226</a>	<a href="#">Josh Harkins (R)</a>	Finance	PERS	Israel Support Act of 2019; extend repealer on.	Removes repealer for Israel Support Act. Authorizes State Treasurer to increase the investment in bonds issued by the Country of Israel from \$20 million to \$50 million.	Removes repealer. Maintains PERS fiduciary language. Effective July 1, 2024.	02/02 (S) Referred To Finance; 02/22 (S) Title Suff Do Pass Comm Sub; 03/07 (S) Passed; 03/07 (S) Motion to Reconsider Entered; 03/12 (S) Reconsidered; 03/12 (S) Amended; 03/12 (S) Passed As Amended; 03/14 (S) Transmitted to House; 03/18 (H) Referred to Banking and Financial Services; 03/27 (H) Title Suff Do Pass as Amended; 04/03 (H) Passed as Amended; 04/04 (H) Returned for Concurrence; 04/12 (S) Concurred in Amend from House; Due from Governor 04/23/2024
<a href="#">SB 2799</a>	<a href="#">Daniel Sparks (R)</a>	Government Structure	PERS	Public official appointments; revise terms of office and appointment procedures on certain state boards, districts and agencies.	Amends section 25-11-15 to require the Governor's appointee to the PERS Board be appointed with the advice and consent of the Senate. If any appointment to an agency board, commission or director position required by statute is not made on or before July 1 of the first year of the appointing authorities' term, the appointment shall be made by the next ranked elected official. If a vacancy occurs in an appointed role, the authority shall make an appointment to fill the vacancy for the unexpired term within 120 days of the date the vacancy occurs. Interim appointments shall be allowed to serve no more than 9 months. An appointed board member may be removed for chronic absenteeism (more than 3 unexcused absences in 1 year).	Addresses PERS Board appointments and all other board appointments. Committee substitute adds executive director position must be confirmed every 4 years.	02/19 (S) Referred To Government Structure; 02/29 (S) Title Suff Do Pass Comm Sub; 3/14 (S) Passed; 03/18 (H) Referred to State Affairs; 04/02 (H) Title Suff Do Pass as Amended; 04/09 (H) Passed as Amended; 04/09 (H) Motion to Reconsider Entered; 04/10 (H) Motion to Reconsider Tabled; 04/10 (H) Returned for Concurrence

<a href="#">SB 2903</a>	<a href="#">David Blount (D)</a>	Finance	MDC	MS Deferred Comp; allow Roth and other after-tax accounts, and comply with qualified domestic relations orders.	Amends Mississippi Deferred Compensation sections 25-14-5 and 25-14-15 to allow Roth accounts and Qualified Domestic Relations Orders (QDROs). House floor amendment inserted PERS Contribution Rate Section 25-11-123 to freeze the PERS employer contribution rate, give sole authority to the legislature for implementing any future employer rate increases, and require the PERS Board to provide at least 2 assessments from actuaries independent from each other and PERS when making any recommendations to the legislature to adjust the employer contribution rate.	Amended to rescind the PERS employer contribution rate increase and place authority with the legislature.	02/19 (S) Referred To Finance; 02/29 (S) Title Suff Do Pass; 03/08 (S) Passed; 03/11 (S) Transmitted To House; 03/14 (H) Referred To Ways and Means; 04/02 (H) Title Suff Do Pass; 04/03 (H) Tabled Subject to Call; 04/10 (H) Passed as Amended; 04/10 (H) Immediate Release; 04/10 (H) Returned for Concurrence
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# Administrative Committee Meeting Agenda

Wednesday, April 24, 2024

11:00 A.M.

(or immediately following the Legislative Committee)

- I. Regulation 59: Plan Assumptions  
(Intended Outcome – Final Adoption)
- II. Regulation 60: Contribution Rates  
(Intended Outcome – Final Adoption)
- III. Regulation 43: Interest Rates  
(Intended Outcome – Final Adoption)
- IV. Funding Policy Update  
(Intended Outcome- Approval of Staff Recommendation)
- V. Upcoming Board Elections Schedule  
(Intended Outcome -Approval of Staff Recommendation)
- VI. Other

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**Administrative  
Committee Members:**

Dr. Randy McCoy, *Committee Chair*  
Mr. Chris Graham  
Mr. Chris Howard  
State Treasurer David McRae

Ms. Kim Hanna, *Board Chair*

# **Public Employees' Retirement System**

## **Board of Trustees**

**April 24, 2024**

### **Proposed Amendments to Board Regulations**

Staff requests the Board's final approval of the proposed amendments to the following regulation:

#### **Regulation 59: Plan Assumptions**

The proposed amendments to Regulation 59 would update the actuarial assumptions for PERS, SLRP, and MHSPRS as approved by the PERS Board of Trustees. This regulation is updated every two years based on the most recent Experience Study.

The effective date of the proposed amendments will be July 1, 2024.

**Title 27: Personnel**

**Part 210: PERS, Regulations for Retirement Plans Administered by the Board of Trustees**

**Chapter 59: Plan Assumptions**

**100 Purpose**

This regulation reflects the applicable actuarial assumptions adopted by the Board of Trustees of the Public Employees' Retirement System of Mississippi (PERS Board) used to convert a retirement allowance from the normal (maximum) form of payment to an optional form of payment for the Public Employees' Retirement System of Mississippi, the Supplemental Legislative Retirement Plan, and the Mississippi Highway Safety Patrol Retirement System.

**101 Actuarial Assumptions for the Public Employees' Retirement System of Mississippi**

1. For purposes of determining an "actuarial equivalent" or of an "actuarial computation," effective July 1, ~~2022~~ 2024, the PERS Board shall use the following actuarial assumptions for service retirees:
  - a. For Service Retirees: The factors are based on the PubS.H-2010(B) Retiree Table with the following adjustments: for males, 95% of male rates from ages 18 to age 60, 110% for ages 61 to age 75 and scaled down to 101% for ages above 77. For females, 84% of the female rates from ages 18 to age 72 and scaled up to 100% for ages above 76. Projection scale MP-2020 is used to project future improvements in life expectancy generationally;
  - b. For Contingent Annuitants: The factors are based on the PubS.H-2010(B) Contingent Annuitant Table with the following adjustments: for males, 97% for all ages and for females, 110% for all ages. Projection scale MP-2020 is used to project future improvements in life expectancy generationally;
  - c. A ~~7.55~~ 7.00 percent interest assumption;
  - d. An annual Cost-of-Living Adjustment (COLA) of 3 percent is assumed to be on a compounded basis for all ages; and
  - e. Unisex blends of mortality rates are assumed as follows:
    - i. Annuity Values – 30 percent male/70 percent female
    - ii. Full Cash Refund – 30 percent male/70 percent female
    - iii. Certain and Life – 40 percent male/60 percent female
    - iv. Partial Lump Sum – 40 percent male/60 percent female
    - v. Joint and Survivor – 60 percent male/40 percent female
2. For purposes of determining an "actuarial equivalent" or of an "actuarial computation," effective July 1, ~~2022~~ 2024, the PERS Board shall use the following actuarial assumptions for disability retirees:
  - a. The factors are based on the Pub.G.H-2010 Disabled Retiree Table with the following adjustments: 134% of male rates at all ages and 121% of female rates at all ages. Projection scale MP-2020 is used to project future improvements in life expectancy generationally;
  - b. A ~~7.55~~ 7.00 percent interest assumption;

- c. An annual Cost-of-Living Adjustment (COLA) of 3 percent is assumed to be on a compounded basis for all ages; and
- d. Unisex blends of mortality rates are assumed as follows:
  - i. Annuity Values – 30 percent male/70 percent female
  - ii. Full Cash Refund – 30 percent male/70 percent female
  - iii. Certain and Life – 40 percent male/60 percent female
  - iv. Joint and Survivor – 60 percent male/40 percent female

## **102 Actuarial Assumptions for the Supplemental Legislative Retirement Plan**

1. For purposes of determining an “actuarial equivalent” or of an “actuarial computation,” effective July 1, ~~2022~~ 2024, the PERS Board shall use the following actuarial assumptions for service retirees:
  - a. For Service Retirees: The factors are based on the PubS.H-2010(B) Retiree Table with the following adjustments: for males, 95% of male rates from ages 18 to age 60, 110% for ages 61 to age 75 and scaled down to 101% for ages above 77. For females, 84% of the female rates from ages 18 to age 72 and scaled up to 100% for ages above 76. Projection scale MP-2020 is used to project future improvements in life expectancy generationally;
  - b. For Contingent Annuitants: The factors are based on the PubS.H-2010(B) Contingent Annuitant Table with the following adjustments: for males, 97% for all ages. For females, 110% for all ages. Projection scale MP-2020 is used to project future improvements in life expectancy generationally;
  - c. A ~~7.55~~ 7.00 percent interest assumption;
  - d. An annual Cost-of-Living Adjustment (COLA) of 3 percent is assumed to be on a compounded basis for all ages; and
  - e. Unisex blends of mortality rates are assumed as follows:
    - i. Annuity Values – 30 percent male/70 percent female
    - ii. Full Cash Refund – 30 percent male/70 percent female
    - iii. Certain and Life – 40 percent male/60 percent female
    - iv. Partial Lump Sum – 40 percent male/60 percent female
    - v. Joint and Survivor – 60 percent male/40 percent female
2. For purposes of determining an “actuarial equivalent” or of an “actuarial computation,” effective July 1, ~~2022~~ 2024, the PERS Board shall use the following actuarial assumptions for disability retirees:
  - a. The factors are based on the PubG.H-2010 Disabled Retiree Table for disabled retirees with the following adjustments: 134% of male rates at all ages and 121% of female rates at all ages. Projection scale MP-2020 is used to project future improvements in life expectancy generationally;
  - b. A ~~7.55~~ 7.00 percent interest assumption;
  - c. An annual Cost-of-Living Adjustment (COLA) of 3 percent is assumed to be on a compounded basis for all ages; and
  - d. Unisex blends of mortality rates are assumed as follows:
    - i. Annuity Values – 30 percent male/70 percent female
    - ii. Full Cash Refund – 30 percent male/70 percent female
    - iii. Certain and Life – 40 percent male/60 percent female
    - iv. Joint and Survivor – 60 percent male/40 percent female

**103 Actuarial Assumptions for the Mississippi Highway Safety Patrol Retirement System**

1. For purposes of determining an “actuarial equivalent” or of an “actuarial computation,” effective July 1, ~~2022~~ 2024, the PERS Board shall use the following actuarial assumptions for service retirees:
  - a. For Service Retirees: The factors are based on the PubS.H-2010(B) Retiree Table with the following adjustments: for males, 95% of male rates from ages 18 to age 60, 110% for ages 61 to age 75, and scaled down to 101% for ages above 77. For females, 84% of the female rates from ages 18 to age 72 and scaled up to 100% for ages above 76. Projection scale MP-2020 is used to project future improvements in life expectancy generationally;
  - b. For Contingent Annuitants: The factors are based on the PubS.H-2010(B) Contingent Annuitant Table with the following adjustments: for males, 97% for all ages. For females, 110% for all ages. Projection scale MP-2020 is used to project future improvements in life expectancy generationally;
  - c. A ~~7.55~~ 7.00 percent interest assumption;
  - d. An annual Cost-of-Living Adjustment (COLA) of 3 percent is assumed to be on a compounded basis for all ages; and
  - e. 95 percent male/5 percent female mortality rates are assumed for all option factors.
2. For purposes of determining an “actuarial equivalent” or of an “actuarial computation,” effective July 1, ~~2022~~ 2024, the PERS Board shall use the following actuarial assumptions for disability retirees:
  - a. The factors are based on the PubG.H-2010 Disabled Retiree Table with the following adjustments: 134% of male rates at all ages and 121% of female rates at all ages. Projection scale MP-2020 is used to project future improvements in life expectancy generationally;
  - b. A ~~7.55~~ 7.00 percent interest assumption;
  - c. An annual Cost-of-Living Adjustment (COLA) of 3 percent is assumed to be on a compounded basis for all ages; and
  - d. 95 percent male/5 percent female mortality rates are assumed for all option factors.

**104 Application of Assumptions**

Whenever the amount of any benefit is to be determined on the basis of actuarial assumptions, such assumptions will be specified in PERS Board actions and regulations in a manner that precludes employer discretion.

(History of PERS Board Regulation 59: Adopted effective January 19, 2009; amended effective July 1, 2010; amended effective July 1, 2012; amended effective July 1, 2014, amended effective July 1, 2016; amended effective July 1, 2018; amended effective July 1, 2020; amended effective July 1, 2022, July 1, 2024)

# Public Employees' Retirement System

## Board of Trustees

April 24, 2024

### Proposed Amendments to Board Regulations

Staff requests the Board's final approval of the proposed amendments to the following regulation:

#### **Regulation 60: Contribution Rates**

Amend Sections 101 and 104 to update the employer contribution rate for the Public Employees' Retirement System (PERS) and the Optional Retirement Program (ORP) from 17.40% to 19.40% as approved by the Board. In accordance with Miss. Code Ann. § 25-11-411, ORP employers shall contribute the same amount the employer would be required to contribute to PERS if the participant were a member.

Amends Section 102 to update the employer contribution rate for the Supplemental Legislative Retirement Plan (SLRP) from 7.40% to 8.40% as approved by the Board.

The effective date of the proposed amendments will be July 1, 2024.



**Title 27: Personnel**

**Part 210: PERS, Regulations for Retirement Plans Administered by the Board of Trustees**

**Chapter 60: Contribution Rates**

**100 Purpose**

This regulation reflects the current employee and employer contribution rates for the Public Employees' Retirement System of Mississippi, the Supplemental Legislative Retirement Plan, the Mississippi Highway Safety Patrol Retirement System, and the Optional Retirement Program for Employees of the State Institutions of Higher Learning.

**101 Contribution Rates for the Public Employees' Retirement System of Mississippi**

Pursuant to Miss. Code Ann. § 25-11-123 (1972, as amended), the Board of Trustees of the Public Employees' Retirement System of Mississippi is authorized to set the contribution rates for both employee and employer contributions based on the basis of the liabilities of the retirement system as shown by the actuarial valuation.

The employee and employer contribution rates are as follows:

1. Employee Contribution Rate - 9.00 percent of earned compensation effective July 1, 2010; and
2. Employer Contribution Rate - ~~17.40~~ 19.40 percent of earned compensation effective ~~July 1, 2019~~ July 1, 2024.

**102 Contribution Rates for the Supplemental Legislative Retirement Plan**

Pursuant to Miss. Code Ann. § 25-11-307 (1972, as amended), the Board of Trustees is authorized to set the employer contribution rate on the basis of the liabilities of the plan as shown by the actuarial valuation.

The employee and employer contribution rates are as follows:

1. Employee Contribution Rate – 3.00 percent of earned compensation effective July 1, 1989; and
2. Employer Contribution Rate – ~~7.40~~ 8.40 percent of earned compensation effective ~~January 1, 2012~~ July 1, 2024.

**103 Contribution Rates for the Mississippi Highway Safety Patrol Retirement System**

Pursuant to Miss. Code Ann. § 25-13-7 (1972, as amended), the Board of Trustees of the Public Employees' Retirement System is authorized to set the employee contribution rate on the basis of the liabilities of the plan as shown by the actuarial valuation. Pursuant to Miss. Code Ann. § 25-13-29 (1972, as amended), the administrative board of the Mississippi Highway Safety Patrol Retirement System is authorized to set biennially the employer contribution percentage rate on the basis of the liabilities of the retirement system as shown by the actuarial valuation.

The employee and employer contribution rates are as follows:

1. Employee Contribution Rate – 7.25 percent of earned compensation effective July 1, 2008; and
2. Employer Contribution Rate – 49.08 percent of earned compensation effective July 1, 2018.

Pursuant to Miss. Code Ann. § 63-15-71 (1972, as amended), the Legislature has levied an additional fee for each certified abstract of operating record furnished by the Motor Vehicle Commission. This fee is deposited into the Mississippi Highway Safety Patrol Retirement System for application to the unfunded accrued liability.

Pursuant to Miss. Code Ann. § 63-1-46 (1972, as amended), the Legislature has levied a fee for the reinstatement of an individual's suspended driver's license and has provided that a portion of that fee shall be paid to PERS to provide additional funding for the Mississippi Highway Safety Patrol Retirement System.

#### **104 Contribution rates for the Optional Retirement Program for Employees of the State Institutions of Higher Learning**

1. Pursuant to Miss. Code Ann. § 25-11-411 (1972, as amended), each participant is required to contribute monthly to the optional retirement program the same amount that he or she would be required to contribute to the Public Employees' Retirement System of Mississippi if he or she were a member of that plan.

Each employer of a participant in the optional retirement program shall contribute on behalf of each participant therein the same amount the employer would otherwise be required to contribute on behalf of such participant if he or she participated in the Public Employees' Retirement System.

The Board of Trustees of the Public Employees' Retirement System is authorized to set the contribution rate for both employee and employer contributions based on the basis of the liabilities of the Public Employees' Retirement System as shown by the actuarial valuation.

The employee and employer contribution rates are as follows:

- a. Employee Contribution Rate - 9.00 percent of earned compensation effective July 1, 2010; and
  - b. Employer Contribution Rate - ~~17.40~~ 19.40 percent of earned compensation effective ~~July 1, 2019~~ July 1, 2024.
2. Pursuant to Miss. Code Ann. § 25-11-415 (1972, as amended) the Board of Trustees is authorized to deduct not more than two percent (2%) of the employers' contribution to defray the cost of administering the plan. Effective July 1, 2009, this administrative fee shall be one percent (1%) of the employers' total contribution which shall be transferred each month to PERS when contributions are due.
  3. The full amount of the employee contribution which is 9.00 percent of the participant's earned compensation shall be remitted to the appropriate company or companies for application to the participant's contract or account or both.

4. The employers' contribution of ~~seventeen and four tenths percent (17.40%)~~ nineteen and four tenths percent (19.40%) of the participant's earned compensation shall be disbursed as follows:
- a. One percent (1%) of the employer contributions (or the equivalent of ~~0.174~~ 0.194 percent of the participant's earned compensation) shall be paid to PERS as an administrative fee.
  - b. Two and one-half percent (2.5%) of the participant's earned compensation reduced by the pro-rata share of the 1% administrative fee, or an equivalent of 2.475 percent of the participant's earned compensation, shall be remitted to PERS for application to the unfunded accrued liability.
  - c. ~~Fourteen and nine tenths percent (14.90%)~~ Sixteen and nine tenths percent (16.9) of the participant's earned compensation reduced by the pro-rata share of the 1% administrative fee, or an equivalent of ~~14.751~~ 16.731 percent of the participant's earned compensation, shall be remitted to the appropriate company or companies for application to the participant's contract or account or both.

(History of PERS Board Regulation 60: Adopted effective January 19, 2009; amended effective July 1, 2009; amended effective July 1, 2010; amended effective July 1, 2011; amended effective July 1, 2012; amended effective July 1, 2013; amended effective February 1, 2014; amended effective July 1, 2018; amended effective July 1, 2019; amended effective July 1, 2024)

# Public Employees' Retirement System

## Board of Trustees

**April 24, 2024**

### **Proposed Amendments to Board Regulations**

Staff requests the Board's final approval of the proposed amendments to the following regulation:

#### **Regulation 43: Interest Rates Used in the Calculation of Repayment of a Refund and for Correction of Administrative Reporting Errors**

The proposed amendments to Regulation 43 would provide the current assumed rate of return and provide historical rates for July 1, 2021 through June 30, 2023.

The effective date of the proposed amendments will be July 1, 2024.

**Part 210 Chapter 43      Interest Rates Used in the Calculation of Repayment of a Refund and for Correction of Administrative Reporting Errors**

**100      Purpose**

The purpose of this regulation is to clarify the interest rates used in calculating the repayment of a refund of contributions or in reporting paying interest on unreported contributions.

**101      Interest rate of fiscal years prior to July 1, 1994**

For fiscal years prior to July 1, 1994, interest, as required in Miss. Code Ann. §25-11-117 (1972, as amended), for the repayment of a refund, or as required in Miss. Code Ann. §25-11-105 (1972, as amended) for the payment of an adjustment for non-reported covered service and/or compensation due to administrative error, shall be calculated on the basis of the interest rate adopted by the PERS Board of Trustees. This interest rate was based on the actuarial assumed interest rate of the System.

**102      Interest rate for fiscal years beginning on and after July 1, 1994, through June 30, 1998**

For the fiscal year beginning on and after July 1, 1994, through June 30, 1998, interest as required in Miss. Code Ann. §25-11-117 (1972, as amended), for the repayment of a refund, or as required in Miss. Code Ann. §25-11-105 (1972, as amended) for the payment of an adjustment for non-reported covered service and/or compensation due to administrative error, shall be computed on the basis of actual annual total rate of return on investments of the System as reflected in the System's annual report, but in no event will interest so charged be less than the rate of interest credited to the member's account in accordance with § 25-11-121(7).

**103      Interest rate for fiscal years beginning on and after July 1, 1998**

For each fiscal year beginning on and after July 1, 1998, interest as required above, shall be computed on the basis of the actuarial assumed interest rate of the System.

- The assumed rate of return from July 1, 1998 through June 30, 2015 was 8.0%.
- The assumed rate of return from July 1, 2015 through June 30, 2021 was 7.75%.
- The assumed rate of return as of July 1, 2021 ~~is 7.55%~~ through June 30, 2023 was 7.55%.
- The assumed rate of return as of July 1, 2023 is 7.0%.

**104      Interest rate to be credited to member's account upon repayment of refund**

Effective on and after July 1, 1994, upon payment of a refund or adjustment, as provided for above, the member's account shall be credited with interest as provided in Miss. Code Ann. §25-11-121(7) (1972, as amended), equal to the interest which would have been posted had the member's contributions been in the plan on a continuous basis. Such interest credit shall apply only to periods of time from and after July 1, 1994.

(History: Adopted August 17, 1993; amended June 25, 1998; amended June 21, 2005, to be effective August 1, 2005; reformatted August 1, 2007; amended effective December 1, 2015; amended effective December 1, 2021, amended effective July 1, 2024)

## **FUNDING POLICY OF THE PUBLIC EMPLOYEES’ RETIREMENT SYSTEM OF MISSISSIPPI**

The purpose of the funding policy is to state the overall funding goals and objectives for the Public Employees’ Retirement System of Mississippi (PERS), and to document both the metrics that will be used to measure progress toward achieving those goals, and the methods and assumptions employed to develop the metrics.

The employer contribution rate for PERS will be set based on the metrics, assumptions and methods outlined in Section II and III of this policy.

### **I. Funding Goals and Objectives**

The objective in requiring employer and member contributions to PERS is to accumulate sufficient assets during a member’s employment to fully finance the benefits the member will receive in retirement. In meeting this objective, PERS will strive to meet the following goals:

- Preservation of the defined benefit structure for providing lifetime benefits to the PERS membership,
- Contribution rate stability as a percentage of payroll (Fixed Contribution Rate – FCR),
- Maintain an increasing trend in the funded ratio over the projection period with an ultimate goal of being 100% funded,
- Require clear reporting and risk analysis of the metrics by the actuary as outlined in Section II of this policy using a “Signal Light” approach to assist the Board in determining whether increases or decreases are needed in the employer contribution rate, and
- Ensure benefit improvements are funded through increases in contribution requirements in accordance with Article 14, S 272A, of the Mississippi Constitution.

## II. Metrics

To track progress in achieving the outlined funding goals and objectives and to assist the Board in making a determination whether an increase or decrease in the employer contribution rate for PERS should be considered, certain metrics will be measured annually in conjunction with information provided in the actuarial valuation and projection report. As part of the annual valuation and projection reports, each metric will be calculated and assigned a “Signal Light” with the following definitions:

Status	Definition
Green	Plan passes metric and PERS’ funding goals, and objectives are achieved
Yellow	Plan passes metric but a warning is issued that negative experience may lead to failing status
Red	Plan fails metric and PERS must consider contribution increases

If any one of the metrics are in the Red Signal Light status in conjunction with the annual valuation report and the projection report-the actuary will determine and recommend to the Board an employer contribution rate increase to consider that is sufficient enough to get all three metrics back into the Green Signal Light status. The employer contribution rate increase would be effective for the July 1<sup>st</sup>, 18 months following the completion of the projection report (e.g., if the projection report in ~~2019~~2024 deems an increase to be considered, then it would be effective for July 1, ~~2024~~2026).

The following metrics will be measured:

- **Funded Ratio** – Funded Ratio is defined as the actuarial value of assets divided by the actuarial accrued liability. One of the funding goals is to have an increasing funded ratio over the projection period with an ultimate goal of having a 100 percent funded ratio. The Board sets the Signal Light definition as follows:

Status	Definition
Green	Funded Ratio above 80% in 2047
Yellow	Funded Ratio between 65% and 80% in 2047
Red	Funded Ratio below 65% in 2047

- Cash flow as a percentage of assets** – Cash flow as a percentage of assets is defined as the difference between total contributions coming into the trust and the benefit payments made to retirees and beneficiaries going out of the trust as a percentage of beginning year market value of assets. Over the projection period, this percentage will fluctuate from year to year so for Signal Light testing, the net cash flow percentage over the entire projection period will be tested. The Board sets the Signal Light definition as follows:

Status	Definition
Green	Net Cash Flow Percentage above negative <del>5.80%</del> <del>(-5.80%)</del> <u>5.25%</u> <del>(-5.25%)</del> during the projection period
Yellow	Net Cash Flow Percentage between negative <del>5.80%</del> <del>(-5.80%)</del> <u>5.25%</u> <del>(-5.25%)</del> and negative <del>7.55%</del> <del>(-7.55%)</del> <u>7.00%</u> <del>(-7.00%)</del> during the projection period
Red	Net Cash Flow Percentage below negative <del>7.55%</del> <del>(-7.55%)</del> <u>7.00%</u> <del>(-7.00%)</del> during the projection period



- **Actuarially Determined Contribution (ADC)** – ADC is defined as the contribution requirement determined by the actuary using a contribution allocation procedure based on the principal elements disclosed in Section III of this funding policy:
  1. Actuarial Cost Method
  2. Asset Smoothing Method
  3. Amortization Method

The calculation of the ADC will be determined during the actuarial valuation and not during the projection report. The ratio of the ADC to the fixed contribution rate (ADC/FCR) as set by this Funding Policy will be tested.

The Board sets the Signal Light definition as follows:

Status	Definition
Green	ADC ratio at or below 100% of fixed contribution rate at valuation date
Yellow	ADC ratio between 100% and 110% of fixed contribution rate at valuation date
Red	ADC ratio above 110% of fixed contribution rate at valuation date

### III. Assumptions and Methods

Each year, the actuary will perform an actuarial valuation and projection report for funding purposes. During the process, the actuary shall calculate all the metrics listed in Section II of this funding policy and PERS' Signal Light status for each metric. The following three major components of a funding valuation will be used:

- **Actuarial Cost Method** – This component determines the attribution method upon which the cost/liability of the retirement benefits are allocated to a given period, defining the normal cost or annual accrual rate associated with projected benefits. The Entry Age Normal Cost Method (EAN) is to be used for determination of the normal cost rate and the actuarial accrued liability for purposes of calculating the Actuarial Determined Contribution (ADC).
- **Asset Valuation Method** – This component dictates the method by which the asset value, used in the determination of the Unfunded Actuarial Accrued Liability (UAAL) and Funded Ratio, is

determined. The asset valuation method to be used shall be a five-year smoothed market value of assets. The difference between the actual market value investment returns and the expected market investment returns is recognized equally over a five-year period.

- **Amortization Method** – This component prescribes, in terms of duration and pattern, the systematic manner in which the difference between the accrued liability and the actuarial value of assets is reduced. For purposes of calculating the ADC metric, the following amortization method assumptions are used:
  1. Once established for any component of the UAAL, the amortization period for that component will be closed and will decrease by one year annually.
  2. The amortization payment will be determined on a level percentage of pay basis.
  3. The length of the amortization periods will be as follows:
    - a. Existing UAAL on June 30, 2018 – 30 years.
    - b. Annual future actuarial experience gains and losses, assumption changes or benefit enhancements or reductions – 25 years from the date of the valuation.
  4. If any future annual actuarial valuation indicates that PERS has a negative UAAL, the ADC shall be set equal to the Normal Cost.
- **Actuarial Assumptions** – The actuarial assumptions are used to develop the annual and projected actuarial metrics, as well as the ADC rates. The actuarial assumptions are derived and proposed by the actuary and adopted by the PERS' Board in conformity with the *Actuarial Standards of Practice*. The actuarial assumptions for this funding policy were developed using the experience for the four-year period ending June 30, ~~2020~~2022 (State of Mississippi Retirement Systems Experience Investigation for the Four-Year Period Ending June 30, ~~2020~~2022). The long-term investment return assumption adopted by the PERS' Board in conjunction with the experience investigation is ~~7.55 percent and, upon approval by the Board, will be reduced until it reaches the rate recommended by the actuary in the most recent experience study using investment gains based on the following parameters:~~
  - ~~• 2% Excess return over assumed rate, lower assumption by 5 basis points;~~
  - ~~• 5% Excess return over assumed rate, lower assumption by 10 basis points;~~
  - ~~• 8% Excess return over assumed rate, lower assumption by 15 basis points;~~
  - ~~• 12% Excess return over assumed rate, lower assumption by 20 basis points.~~7.00 percent.

#### IV. Governance Policy/Process

Below is a list of specific actuarial and funding related studies, the frequency at which they should be commissioned by the Board and additional responsibilities related to each:

- **Actuarial Valuation (performed annually)** – The Board is responsible for the review of PERS’ annual actuarial valuation report, which provides the annual funded ratio and the calculation of the ADC.
- **Projection Report (performed annually)** – The Board is responsible for the review of PERS’ 30-year projection report, which will include the actuarial metrics and Signal Light status for each metric over a 30-year period.
- **Experience Analysis (performed every two years on a rolling four-year-basis)** – The Board is responsible for ensuring that an experience analysis is performed as prescribed, review of the results of the study, and approving the actuarial assumptions and methodologies to be used for all actuarial purposes relating to the defined benefit pension plan.
- **Actuarial Audit (performed at least every five years)** – The Board is responsible for the review of an audit report performed by a new actuarial firm to provide a critique of the reasonableness of the actuarial methods and assumptions in use and the resulting actuarially computed liabilities and contribution rates.
- **Funding Policy Review (performed at least annually)** – The Board is responsible for the periodic review of this policy, but at least annually following the Projection Report and biennially following the Experience Analysis.

#### V. Glossary of Funding Policy Terms

- **Actuarial Accrued Liability (AAL):** The AAL is the value at a particular point in time of all past normal costs. This is the amount of assets the plan would have today if the current plan provisions, actuarial assumptions, and participant data had always been in effect, contributions equal to the normal cost had been made, and all actuarial assumptions had been met.
- **Actuarial Cost Method:** The actuarial cost method allocates a portion of the total cost (present value of benefits) to each year of service, both past service and future service.
- **Actuarial Determined Contribution (ADC):** The potential payment to the plan as determined by the actuary using a contribution allocation procedure that, if contributed consistently and combined with investment earnings, would be sufficient to pay promised benefits in full over the long term. The ADC may or may not be the amount actually paid by the plan sponsor or other contributing entity.

- **Asset Values:**
  - **Actuarial Value of Assets (AVA):** The AVA is the market value of assets less the deferred investment gains or losses not yet recognized by the asset smoothing method.
  - **Market Value of Assets (MVA):** The MVA is the fair value of assets of the plan as reported in the plan's audited financial statements.
- **Entry Age Normal Actuarial Cost Method (EAN):** The EAN actuarial cost method is a funding method that calculates the normal cost as a level percentage of pay or level dollar amount over the working lifetime of the plan's members.
- **Funded Ratio:** The funded ratio is the ratio of the plan assets to the plan's actuarial accrued liabilities.
  - **Actuarial Value Funded Ratio:** is the ratio of the AVA to the AAL.
- **Normal Cost:** The normal cost is the cost allocated under the actuarial cost method to each year of active member service.
- **Present Value of Benefits (PVB) or total cost:** The PVB is the value at a particular point in time of all projected future benefit payments for current plan members. The future benefit payments and the value of those payments are determined using actuarial assumptions regarding future events. Examples of these assumptions are estimates of retirement and termination patterns, salary increases, investment returns, etc.
- **Surplus:** A surplus refers to the positive difference, if any, between the AVA and the AAL.
- **Unfunded Actuarial Accrued Liability (UAAL):** The UAAL is the portion of the AAL that is not currently covered by the AVA. It is the positive difference between the AAL and the AVA.
- **Valuation Date:** The valuation date is the annual date upon which an actuarial valuation is performed; meaning that the trust assets and liabilities of the plan are valued as of that date. PERS' annual valuation date is June 30.

# **HSPRS Funding Policy 06.30.2023 edits**

The purpose of the funding policy is to state the overall funding goals and objectives for the Mississippi Highway Safety Patrol Retirement System (HSPRS), and to document both the metrics that will be used to measure progress toward achieving those goals, and the methods and assumptions employed to develop the metrics. The employer contribution rate for HSPRS will be set based on the metrics, assumptions and methods outlined in Section II and III of this policy.

## **I. Funding Goals and Objectives**

The objective in requiring employer and member contributions to HSPRS is to accumulate sufficient assets during a member's employment to fully finance the benefits the member will receive in retirement. In meeting this objective, HSPRS will strive to meet the following goals:

- Preservation of the defined benefit structure for providing lifetime benefits to the HSPRS membership,
- Contribution rate stability as a percentage of payroll (Fixed Contribution Rate – FCR),
- Maintain an increasing trend in the funded ratio over the projection period with an ultimate goal of being 100% funded,
- Require clear reporting and risk analysis of the metrics by the actuary as outlined in Section II of this policy using a “Signal Light” approach to assist the Board in determining whether increases or decreases are needed in the employer contribution rate, and
- Ensure benefit improvements are funded through increases in contribution requirements in accordance with Article 14, S 272A, of the Mississippi Constitution.

## **II. Metrics**

To track progress in achieving the outlined funding goals and objectives and to assist the Board in making a determination whether an increase or decrease in the employer contribution rate for HSPRS should be considered, certain metrics will be measured annually in conjunction with information provided in the actuarial valuation and projection report. As part of the annual valuation and projection reports, each metric will be calculated and assigned a “Signal Light” with the following definitions:

Status	Definition
Green	Plan passes metric and HSPRS' funding goals, and objectives are achieved
Yellow	Plan passes metric but a warning is issued that negative experience may lead to failing status
Red	Plan fails metric and HSPRS must consider contribution increases

If any one of the metrics are in the Red Signal Light status in conjunction with the annual valuation report and the projection report, the actuary will determine and recommend to the Board an employer contribution rate increase to consider that is sufficient enough to get all three metrics back into the Green Signal Light status. The employer contribution rate increase would be effective beginning July 1<sup>st</sup>, 18 months following the completion of the projection report (e.g., if the projection report in 2024 deems an increase to be considered, then it would be effective for July 1, 2026).

The following metrics will be measured:

- **Funded Ratio** – Funded Ratio is defined as the actuarial value of assets divided by the actuarial accrued liability. One of the funding goals is to have an increasing funded ratio over the projection period with an ultimate goal of having a 100 percent funded ratio. The Board sets the Signal Light definition as follows:

Status	Definition
Green	Funded Ratio above 90% in 2047
Yellow	Funded Ratio between 70% and 90% in 2047
Red	Funded Ratio below 70% in 2047

- **Cash flow as a percentage of assets** – Cash flow as a percentage of assets is defined as the difference between total contributions coming into the trust and the benefit payments made to retirees and beneficiaries going out of the trust as a percentage of beginning year market value of assets. Over the projection period, this percentage will fluctuate from year to year so for Signal Light testing, the net cash flow percentage over the entire projection period will be tested. The Board sets the Signal Light definition as follows:

Status	Definition
Green	Net Cash Flow Percentage above negative <del>5.80% (-5.80%)</del> <u>5.25% (-5.25%)</u> during the projection period
Yellow	Net Cash Flow Percentage between negative <del>5.80% (-5.80%)</del> <u>5.25% (-5.25%)</u> and negative <del>7.55% (-7.55%)</del> <u>7.00% (-7.00%)</u> during the projection period
Red	Net Cash Flow Percentage below negative <del>7.55% (-7.55%)</del> <u>7.00% (-7.00%)</u> during the projection period

- **Actuarially Determined Contribution (ADC)** – ADC is defined as the contribution requirement determined by the actuary using a contribution allocation procedure based on the principal elements disclosed in Section III of this funding policy:
  1. Actuarial Cost Method
  2. Asset Smoothing Method
  3. Amortization Method

The calculation of the ADC will be determined during the actuarial valuation and not during the projection report. The ratio of the ADC to the fixed contribution rate (ADC/FCR) as set by this Funding Policy will be tested. The Board sets the Signal Light definition as follows:

Status	Definition
Green	ADC ratio at or below 100% of fixed contribution rate at valuation date
Yellow	ADC ratio between 100% and 110% of fixed contribution rate at valuation date
Red	ADC ratio above 110% of fixed contribution rate at valuation date

If all of the metrics are in the Green Signal Light status in conjunction with the annual valuation report and the projection report and the following additional criteria is met for two consecutive valuation and projection cycles, the actuary may recommend to the Board an employer contribution rate decrease to consider. The additional criteria is based on the actuary's long-term investment return assumption recommended by the actuary in the most recent experience study and is as follows:

- Funded Ratio in 2047 is above 110%,
- Cash Flow as a percentage of assets is above negative 3.5% during the projection period, and
- ADC Ratio is below 90% for all years of the projection period.

### III. Assumptions and Methods

Each year, the actuary will perform an actuarial valuation and projection report for funding purposes. During the process, the actuary shall calculate all the metrics listed in Section II of this funding policy and HSPRS' Signal Light status for each metric. The following three major components of a funding valuation will be used:

- **Actuarial Cost Method** – This component determines the attribution method upon which the cost/liability of the retirement benefits are allocated to a given period, defining the normal cost or annual accrual rate associated with projected benefits. The Entry Age Normal Cost Method (EAN) is to be used for determination of the normal cost rate and the actuarial accrued liability for purposes of calculating the Actuarial Determined Contribution (ADC).



- **Asset Valuation Method** – This component dictates the method by which the asset value, used in the determination of the Unfunded Actuarial Accrued Liability (UAAL) and Funded Ratio, is determined. The asset valuation method to be used shall be a five-year smoothed market value of assets. The difference between the actual market value investment returns and the expected market investment returns is recognized equally over a five-year period.
- **Amortization Method** – This component prescribes, in terms of duration and pattern, the systematic manner in which the difference between the accrued liability and the actuarial value of assets is reduced. For purposes of calculating the ADC metric, the following amortization method assumptions are used:
  - I. Once established for any component of the UAAL, the amortization period for that component will be closed and will decrease by one year annually.
  - II. The amortization payment will be determined on a level percentage of pay basis.
  - III. The length of the amortization periods will be as follows:
    - a. Existing UAAL on June 30, 2023 – 25 years.
    - b. Annual future actuarial experience gains and losses, assumption changes or benefit enhancements or reductions – 25 years from the date of the valuation.
  - IV. If any future annual actuarial valuation indicates that HSPRS has a negative UAAL, the ADC shall be set equal to the Normal Cost.
- **Actuarial Assumptions** – The actuarial assumptions are used to develop the annual and projected actuarial metrics, as well as the ADC rates. The actuarial assumptions are derived and proposed by the actuary and adopted by the PERS' Board in conformity with the *Actuarial Standards of Practice*. The actuarial assumptions for this funding policy were developed using the experience for the four-year period ending June 30, 2022 (State of Mississippi Retirement Systems Experience Investigation for the Four-Year Period Ending June 30, 2022). The long-term investment return assumption adopted by the PERS' Board in conjunction with the experience investigation is ~~7.55 percent and, upon approval by the Board, will be reduced until it reaches the rate recommended by the actuary in the most recent experience study using investment gains based on the following parameters:~~  
~~• 2% Excess return over assumed rate, lower assumption by 5 basis points;~~  
~~• 5% Excess return over assumed rate, lower assumption by 10 basis points;~~  
~~• 8% Excess return over assumed rate, lower assumption by 15 basis points;~~  
~~• 12% Excess return over assumed rate, lower assumption by 20 basis points.~~  
7.00 percent.

#### IV. Governance Policy/Process

Below is a list of specific actuarial and funding related studies, the frequency at which they should be commissioned by the Board and additional responsibilities related to each:

- **Actuarial Valuation (performed annually)** – The Board is responsible for the review of HSPRS' annual actuarial valuation report, which provides the annual funded ratio and the calculation of the ADC.
- **Projection Report (performed annually)** – The Board is responsible for the review of HSPRS' 30-year projection report, which will include the actuarial metrics and Signal Light status for each metric over a 30-year period.
- **Experience Analysis (performed every two years on a rolling four-year)** – The Board is responsible for ensuring that an experience analysis is performed as prescribed, review of the results of the study, and approving the actuarial assumptions and methodologies to be used for all actuarial purposes relating to the defined benefit pension plan.
- **Actuarial Audit (performed at least every five years)** – The Board is responsible for the review of an audit report performed by a new actuarial firm to provide a critique of the reasonableness of the actuarial methods and assumptions in use and the resulting actuarially computed liabilities and contribution rates.
- **Funding Policy Review (performed at least annually)** – The Board is responsible for the periodic review of this policy, but at least annually following the Projection Report and biennially following the Experience Analysis.

#### V. Glossary of Funding Policy Terms

- **Actuarial Accrued Liability (AAL):** The AAL is the value at a particular point in time of all past normal costs. This is the amount of assets the plan would have today if the current plan provisions, actuarial assumptions, and participant data had always been in effect, contributions equal to the normal cost had been made, and all actuarial assumptions had been met.
- **Actuarial Cost Method:** The actuarial cost method allocates a portion of the total cost (present value of benefits) to each year of service, both past service and future service.
- **Actuarial Determined Contribution (ADC):** The potential payment to the plan as determined by the actuary using a contribution allocation procedure that, if contributed consistently and combined with investment earnings, would be sufficient to pay promised benefits in full over the long term. The ADC may or may not be the amount actually paid by the plan sponsor or other contributing entity.
- **Asset Values:**
  - **Actuarial Value of Assets (AVA):** The AVA is the market value of assets less the deferred investment gains or losses not yet recognized by the asset smoothing method.
  - **Market Value of Assets (MVA):** The MVA is the fair value of assets of the plan as reported in the plan's audited financial statements.
- **Entry Age Normal Actuarial Cost Method (EAN):** The EAN actuarial cost method is a funding method that calculates the normal cost as a level percentage of pay or level dollar amount over the working lifetime of the plan's members.

- **Funded Ratio:** The funded ratio is the ratio of the plan assets to the plan's actuarial accrued liabilities.
  - **Actuarial Value Funded Ratio:** is the ratio of the AVA to the AAL.
- **Normal Cost:** The normal cost is the cost allocated under the actuarial cost method to each year of active member service.
- **Present Value of Benefits (PVB) or total cost:** The PVB is the value at a particular point in time of all projected future benefit payments for current plan members. The future benefit payments and the value of those payments are determined using actuarial assumptions regarding future events. Examples of these assumptions are estimates of retirement and termination patterns, salary increases, investment returns, etc.
- **Surplus:** A surplus refers to the positive difference, if any, between the AVA and the AAL.
- **Unfunded Actuarial Accrued Liability (UAAL):** The UAAL is the portion of the AAL that is not currently covered by the AVA. It is the positive difference between the AAL and the AVA.
- **Valuation Date:** The valuation date is the annual date upon which an actuarial valuation is performed; meaning that the trust assets and liabilities of the plan are valued as of that date. HSPRS' annual valuation date is June 30.

# **SLRP Funding Policy 06.30.2023 edits**

The purpose of the funding policy is to state the overall funding goals and objectives for the Supplemental Legislative Retirement Plan of Mississippi (SLRP), and to document both the metrics that will be used to measure progress toward achieving those goals, and the methods and assumptions employed to develop the metrics. The employer contribution rate for SLRP will be set based on the metrics, assumptions and methods outlined in Section II and III of this policy.

## I. Funding Goals and Objectives

The objective in requiring employer and member contributions to SLRP is to accumulate sufficient assets during a member's employment to fully finance the benefits the member will receive in retirement. In meeting this objective, SLRP will strive to meet the following goals:

- Preservation of the defined benefit structure for providing lifetime benefits to the SLRP membership,
- Contribution rate stability as a percentage of payroll (Fixed Contribution Rate – FCR),
- Maintain an increasing trend in the funded ratio over the projection period with an ultimate goal of being 100% funded,
- Require clear reporting and risk analysis of the metrics by the actuary as outlined in Section II of this policy using a "Signal Light" approach to assist the Board in determining whether increases or decreases are needed in the employer contribution rate, and
- Ensure benefit improvements are funded through increases in contribution requirements in accordance with Article 14, S 272A, of the Mississippi Constitution.

## II. Metrics

To track progress in achieving the outlined funding goals and objectives and to assist the Board in making a determination whether an increase or decrease in the employer contribution rate for SLRP should be considered, certain metrics will be measured annually in conjunction with information provided in the actuarial valuation and projection report. As part of the annual valuation and projection reports, each metric will be calculated and assigned a "Signal Light" with the following definitions:

Status	Definition
Green	Plan passes metric and SLRP funding goals, and objectives are achieved
Yellow	Plan passes metric but a warning is issued that negative experience may lead to failing status
Red	Plan fails metric and SLRP must consider contribution increases

If any one of the metrics are in the Red Signal Light status in conjunction with the annual valuation report and the projection report, the actuary will determine and recommend to the Board an employer contribution rate increase to consider that is sufficient enough to get all three metrics back into the Green Signal Light status. The employer contribution rate increase would be effective beginning July 1<sup>st</sup>, 18 months following the completion of the projection report (e.g., if the projection report in 2024 deems an increase to be considered, then it would be effective for July 1, 2026).

The following metrics will be measured:

- **Funded Ratio** – Funded Ratio is defined as the actuarial value of assets divided by the actuarial accrued liability. One of the funding goals is to have an increasing funded ratio over the projection period with an ultimate goal of having a 100 percent funded ratio. The Board sets the Signal Light definition as follows:

Status	Definition
Green	Funded Ratio above 90% in 2047
Yellow	Funded Ratio between 70% and 90% in 2047
Red	Funded Ratio below 70% in 2047

- **Cash flow as a percentage of assets** – Cash flow as a percentage of assets is defined as the difference between total contributions coming into the trust and the benefit payments made to retirees and beneficiaries going out of the trust as a percentage of beginning year market value of assets. Over the projection period, this percentage will fluctuate from year to year so for Signal Light testing, the net cash flow percentage over the entire projection period will be tested. The Board sets the Signal Light definition as follows:

Status	Definition
Green	Net Cash Flow Percentage above negative <del>5.80% (-5.80%)</del> <u>5.25% (-5.25%)</u> during the projection period
Yellow	Net Cash Flow Percentage between negative <del>5.80% (-5.80%)</del> <u>5.25% (-5.25%)</u> and negative <del>7.55% (-7.55%)</del> <u>7.00% (-7.00%)</u> during the projection period
Red	Net Cash Flow Percentage below negative <del>7.55% (-7.55%)</del> <u>7.00% (-7.00%)</u> during the projection period

- **Actuarially Determined Contribution (ADC)** – ADC is defined as the contribution requirement determined by the actuary using a contribution allocation procedure based on the principal elements disclosed in Section III of this funding policy:
  1. Actuarial Cost Method
  2. Asset Smoothing Method
  3. Amortization Method

The calculation of the ADC will be determined during the actuarial valuation and not during the projection report. The ratio of the ADC to the fixed contribution rate (ADC/FCR) as set by this Funding Policy will be tested. The Board sets the Signal Light definition as follows:

Status	Definition
Green	ADC ratio at or below 100% of fixed contribution rate at valuation date
Yellow	ADC ratio between 100% and 110% of fixed contribution rate at valuation date
Red	ADC ratio above 110% of fixed contribution rate at valuation date

If all of the metrics are in the Green Signal Light status in conjunction with the annual valuation report and the projection report and the following additional criteria is met for two consecutive valuation and projection cycles, the actuary may recommend to the Board an employer contribution rate decrease to consider. The additional criteria is based on the actuary's long-term investment return assumption recommended by the actuary in the most recent experience study and is as follows:

- Funded Ratio in 2047 is above 110%,
- Cash Flow as a percentage of assets is above negative 3.5% during the projection period, and
- ADC Ratio is below 90% for all years of the projection period.

### III. Assumptions and Methods

Each year, the actuary will perform an actuarial valuation and projection report for funding purposes. During the process, the actuary shall calculate all the metrics listed in Section II of this funding policy and SLRP's Signal Light status for each metric. The following three major components of a funding valuation will be used:

- **Actuarial Cost Method** – This component determines the attribution method upon which the cost/liability of the retirement benefits are allocated to a given period, defining the normal cost or annual accrual rate associated with projected benefits. The Entry Age Normal Cost Method (EAN) is to be used for determination of the normal cost rate and the actuarial accrued liability for purposes of calculating the Actuarial Determined Contribution (ADC).
- **Asset Valuation Method** – This component dictates the method by which the asset value, used in the determination of the Unfunded Actuarial Accrued Liability (UAAL) and Funded Ratio, is determined. The asset valuation method to be used shall be a five-year smoothed market value of assets. The difference between the actual market value investment returns and the expected market investment returns is recognized equally over a five-year period.

- **Amortization Method** – This component prescribes, in terms of duration and pattern, the systematic manner in which the difference between the accrued liability and the actuarial value of assets is reduced. For purposes of calculating the ADC metric, the following amortization method assumptions are used:
  - I. Once established for any component of the UAAL, the amortization period for that component will be closed and will decrease by one year annually.
  - II. The amortization payment will be determined on a level percentage of pay basis.
  - III. The length of the amortization periods will be as follows:
    - a. Existing UAAL on June 30, 2023 – 25 years.
    - b. Annual future actuarial experience gains and losses, assumption changes or benefit enhancements or reductions – 25 years from the date of the valuation.
  - IV. If any future annual actuarial valuation indicates that SLRP has a negative UAAL, the ADC shall be set equal to the Normal Cost.
  
- **Actuarial Assumptions** – The actuarial assumptions are used to develop the annual and projected actuarial metrics, as well as the ADC rates. The actuarial assumptions are derived and proposed by the actuary and adopted by the PERS' Board in conformity with the *Actuarial Standards of Practice*. The actuarial assumptions for this funding policy were developed using the experience for the four-year period ending June 30, 2022 (State of Mississippi Retirement Systems Experience Investigation for the Four-Year Period Ending June 30, 2022). The long-term investment return assumption adopted by the PERS' Board in conjunction with the experience investigation is ~~7.55 percent and, upon approval by the Board, will be reduced until it reaches the rate recommended by the actuary in the most recent experience study using investment gains based on the following parameters:~~  
~~• 2% Excess return over assumed rate, lower assumption by 5 basis points;~~  
~~• 5% Excess return over assumed rate, lower assumption by 10 basis points;~~  
~~• 8% Excess return over assumed rate, lower assumption by 15 basis points;~~  
~~• 12% Excess return over assumed rate, lower assumption by 20 basis points.~~  
7.00 percent.

#### IV. Governance Policy/Process

Below is a list of specific actuarial and funding related studies, the frequency at which they should be commissioned by the Board and additional responsibilities related to each:

- **Actuarial Valuation (performed annually)** – The Board is responsible for the review of SLRP's annual actuarial valuation report, which provides the annual funded ratio and the calculation of the ADC.
- **Projection Report (performed annually)** – The Board is responsible for the review of SLRP's 30-year projection report, which will include the actuarial metrics and Signal Light status for each metric over a 30-year period.
- **Experience Analysis (performed every two years on a rolling four-year)** – The Board is responsible for ensuring that an experience analysis is performed as prescribed, review of the



results of the study, and approving the actuarial assumptions and methodologies to be used for all actuarial purposes relating to the defined benefit pension plan.

- **Actuarial Audit (performed at least every five years)** – The Board is responsible for the review of an audit report performed by a new actuarial firm to provide a critique of the reasonableness of the actuarial methods and assumptions in use and the resulting actuarially computed liabilities and contribution rates.
- **Funding Policy Review (performed at least annually)** – The Board is responsible for the periodic review of this policy, but at least annually following the Projection Report and biennially following the Experience Analysis.

## **PERS Board Special Election Schedule – State Employee Representative**

### **Vacancy May 1, 2024**

#### **Term Ends June 30, 2026**

May 7, 2024	Notice mailed to agencies soliciting potential candidates
June 7, 2024	Deadline for receipt of petitions
June 26, 2024	Board approval of ballot at regularly scheduled meeting
July 17, 2024	Deadline to mail ballots
Aug 21, 2024	Deadline for receipt of ballots/votes
Aug 28, 2024	Board approval of election results at regularly scheduled meeting

### **Runoff (if necessary)**

Sept 11, 2024	Ballots mailed
Oct 16, 2024	Deadline for receipts of ballots/votes
Oct 23, 2024	Board approval of election results at regularly scheduled meeting

# 2024 PERS Board Election Schedule (State)

## **PERS Board Election Schedule – State Employee Representative**

### **Term ends 12/31/24**

July 2, 2024	Notice mailed to agencies soliciting potential candidates
Aug 6, 2024	Deadline for receipt of petitions
Aug 28, 2024	Board approval of ballot at regularly scheduled meeting
Sept 11, 2024	Deadline to mail ballots
Oct 16, 2024	Deadline for receipt of ballots/votes
Oct 23, 2024	Board approval of election results at regularly scheduled meeting

### **Runoff (if necessary)**

Nov 06, 2024	Ballots mailed
Dec 11, 2024	Deadline for receipts of ballots/votes
Dec 18, 2024	Board approval of election results at regularly scheduled meeting



# Board of Trustees Meeting Agenda

Wednesday, April 24, 2024

1:00 P.M.

- A. **Call to Order** (*Ms. Kim Hanna, Chair*)
  - A. **Invocation**
  - B. **Pledge of Allegiance**
  - C. **Approval of Agenda**
  - D. [Approval of Minutes](#) – February 28, 2024
  - E. [Approval of Minutes](#)– March 15, 2024
- B. **Report of Administrative Committee** (*Dr. Randy McCoy*)
  - A. [Regulation 59: Plan Assumptions](#)
  - B. [Regulation 60: Contribution Rates](#)
  - C. [Regulation 43: Interest Rates](#)
  - D. [Funding Policy Update](#)
  - E. [Upcoming Board Elections Schedule](#)
  - F. **Other**
- C. **Report of Claims Committee** (*Mr. Bill Benson*)
  - A. **Certification for Delinquent Contributions** – *Jefferson County Hospital*
  - B. **Other**
- D. **Report of Defined Contribution Committee** (*Dr. Brian Rutledge*)
  - A. [ORP Plan Document](#)
  - B. **Other**
- E. **Report of Legislative Committee** (*Mr. George Dale*)
  - A. **Other**
- F. **Report of Investment Committee** (*Mr. Kelly Breland*)
  - A. [Small Cap International Manager Search Selection](#)
  - B. [New Private Equity Series- GCM](#)
  - C. [New Real Estate Series-Heitman VP Fund VI](#)
  - D. **Other**
- G. [Disability Appeals Committee](#)
- H. **Staff Reports**
  - A. [Retiree Report](#)
  - B. [Investment Report](#)
- I. **Staff and Trustee Continuing Education**
  - A. [NCTR 24<sup>th</sup> Annual Trustee Workshop; July 21-24, Berkeley, CA](#)
  - B. [NASRA 2024 Annual Conference; August 3-7, 2024; Pittsburgh, Pennsylvania](#)
  - C. [NCTR 102<sup>nd</sup> Conference; October 5-9, 2024; Atlanta, GA](#)
- J. [Economic Interest Disclosures](#)
- K. **Adjourn**

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**Board Members:**

Ms. Kim Hanna, *Board Chair*  
Mr. Kelly Breland, *Board Vice Chair*  
Mr. Bill Benson  
Mr. George Dale  
Mr. Chris Graham

Mr. Chris Howard  
Dr. Randy McCoy  
State Treasurer David McRae  
Dr. Brian Rutledge  
Dr. Jay Smith

# MINUTES | BOARD OF TRUSTEES

Public Employees' Retirement System of Mississippi

February 28, 2024 | PERS Board Room

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## Board of Trustees Meeting Agenda

Wednesday, February 28, 2024

1:00 P.M.

- I. Call to Order (*Ms. Kim Hanna, Chair*)
  - A. Invocation
  - B. Pledge of Allegiance
  - C. Approval of Agenda
  - D. [Approval of Minutes – December 19, 2023](#)
  - E. [Employee of Quarter – \(April-June 2024\)](#)
- II. Report of Administrative Committee (*Dr. Randy McCoy*)
  - A. [Banking Services REP](#)
  - B. [Regulation 59: Plan Assumptions](#)
  - C. [Regulation 60: Contribution Rates](#)
  - D. [Regulation 43: Interest Rates](#)
  - E. [Annual Crediting of Interest on Member Accounts](#)
  - F. Other
- III. Report of Claims Committee (*Mr. Bill Benson*)
  - A. Certification for Delinquent Contributions – *Jefferson County Hospital*
  - B. [Modify Joinder Agreement](#) – *Peari River Co. Bd. of Supervisors*
  - C. Other
- IV. Report of Defined Contribution Committee (*Dr. Brian Rutledge*)
  - A. [ORP Plan Document](#)
  - B. [TIAA CIT Options](#)
  - C. Other
- V. Report of Legislative Committee (*Mr. George Dale*)
  - A. Other
- VI. Report of Investment Committee (*Mr. Kelly Breland*)
  - A. Other
- VII. [Disability Appeals Committee](#)
- VIII. Staff Reports
  - A. [Retirees Report](#)
  - B. [Investment Report](#)
- IX. [Economic Interest Disclosures](#)
- X. Adjourn

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### Board Members:

Ms. Kim Hanna, *Board Chair*  
Mr. Kelly Breland, *Board Vice Chair*  
Mr. Bill Benson  
Mr. George Dale  
Mr. Chris Graham

Mr. Chris Howard  
Dr. Randy McCoy  
State Treasurer David McRae  
Dr. Brian Rutledge  
Dr. Jay Smith

# MINUTES | BOARD OF TRUSTEES

Public Employees' Retirement System of Mississippi

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The Public Employees' Retirement System of Mississippi (PERS) Board of Trustees met Wednesday, February 28, 2024, at 429 Mississippi Street, Jackson, MS 39201. This meeting was duly announced to the public Tuesday, February 13, 2024, at 8:08 a.m., on the Public Meetings Notice website of the Mississippi Department of Finance and Administration, as well as was posted in the PERS lobby and on the PERS website.

## BOARD MEMBER ATTENDEES

**In Person:** Board Chair Ms. Kimberly Hanna, Mr. Bill Benson, Mr. Kelly Breland, Mr. George Dale, Mr. Chris Graham, Mr. Chris Howard, State Treasurer David McRae, Dr. Randy McCoy, Dr. Brian Rutledge, and Dr. Jay Smith.

**Via Teleconference:** None.

**Absent:** None.

**Current Board Vacancies:** None.

## LEGISLATIVE LIAISON ATTENDEES

**In Person:** None.

## STAFF ATTENDEES

**In Person:** Executive Director Ray Higgins; Chief Investment Officer Charles Nielsen; Senior Deputy Administrator Office of Administrative Services and Chief of Staff Terri Hudson; Counsel and Policy Advisor Davetta Lee; Member and Employer Services Deputy Administrator Mason Frantom; Benefit Services Deputy Administrator Lisa Green; Jason Clark, Investments; Chief Technology Officer Mike Lowry; Billy Means, Antonio Fisher, Maurice Gilliam, Ryan Davy, Chris Renfro, Alex Edmund, and William Bilbro, Information Technology; Comptroller Melanie Estridge, Accounting; Employer Reporting Program Administrator Alisa Evans; Benefit Payments Program Administrator Susan Lyon; Retirement Education Program Administrator LaCarole Smith; Service Retirement Program Administrator Terri Bennett; Member Account Support Program Administrator Chris Hudson; and Communications Director Shelley Powers.

**Via Teleconference:** Ken Nason, Information Technology

## GUEST ATTENDEES

**In Person:** Assistant Attorney General Suzanne Hudson; Kristen Jones, Office of the Attorney General; Lee Ann Robinson and Emily Tschiffely, Legislative Budget Office; Ray Wright, Mississippi Joint Legislative Committee on Performance Evaluation and Expenditure Review (PEER); Phil Sutphin, Retired Education Personnel of Mississippi; Yerger Lurate, Harper Raines Knight; Allan Cooper, Mississippi Department of Finance and Administration; Toren Ballard, Mississippi First; Dr. Ivan Ghereless, Vernon Weathers, Alexis Wave, and Sir Rucker, Jackson State University; and Emily Pote and Bonnie Granger, Mississippi Retired Public Employees' Association.

**Via Teleconference:** Ed Koebel, Cavanaugh Macdonald

## CALL TO ORDER

*Board Chair Hanna called the meeting to order at 1 p.m.*

## INVOCATION

Benson gave the invocation.

## PLEDGE OF ALLEGIANCE

Benson led the Pledge of Allegiance.

*Breland arrived at 1:01 p.m.*

## AGENDA

- **Motion:** To approve the meeting agenda.
  - **Made by:** McCoy.
  - **Seconded by:** Dale.
  - **Discussion:** None.
  - **Voting for:** Benson, Breland, Dale, Graham, Hanna, Howard, McCoy, McRae, Rutledge, and Smith.
  - **Voting against:** None.
  - **Absent:** None.
  - **Duly Passed.**

## MINUTES

- **Motion:** To approve the minutes of the December 19, 2023, PERS Board of Trustees' meeting.
  - **Made by:** McRae.

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Public Employees' Retirement System of Mississippi

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- **Seconded by:** Rutledge.
- **Discussion:** None.
- **Voting for:** Benson, Breland, Dale, Graham, Hanna, Howard, McCoy, McRae, Rutledge, and Smith.
- **Voting against:** None.
- **Absent:** None.
- **Duly Passed.**

## EMPLOYEE OF THE QUARTER

Hanna presented the Employee of the Quarter for April through June 2024, to Antonio Fisher, Information Technology.

## REPORT OF THE ADMINISTRATIVE COMMITTEE

Committee Chair McCoy reported that the Administrative Committee met the morning of February 28, 2024, and approved the following items for Board consideration.

### Banking Services RFP

McCoy presented the Board with a staff recommendation to approve BNY Mellon for custody services, Mitsubishi for securities lending services, and Regions Bank for commercial banking services with selection contingent on successful contract and fee negotiations.

- **Motion:** To approve BNY Mellon for custody services, Mitsubishi for securities lending services, and Regions Bank for commercial banking services with selection contingent on successful contract and fee negotiations.
  - **Made by:** McCoy.
  - **Seconded by:** Benson.
  - **Discussion:** None.
  - **Voting for:** Benson, Breland, Dale, Graham, Hanna, Howard, McRae, McCoy, Rutledge, and Smith.
  - **Voting against:** None.
  - **Absent:** None.
  - **Duly Passed.**

*(Addendum A – Banking Services)*

## REGULATION 59: PLAN ASSUMPTIONS

McCoy presented the Board with staff-recommended changes to Regulation 59 for initial approval. The amendments would update the actuarial assumptions for PERS, SLRP, and MHSPRS, effective July 1, 2024.:

- **Motion:** To provide initial approval of staff-recommended changes to Regulation 59 to update actuarial assumptions for PERS, SLRP, and MHSPRS, effective July 1, 2024.
  - **Made by:** McCoy.
  - **Seconded by:** Rutledge.
  - **Discussion:** None.
  - **Voting for:** Benson, Breland, Dale, Graham, Hanna, Howard, McRae, Rutledge, and Smith.
  - **Voting against:** McCoy.
  - **Absent:** None.
  - **Duly Passed.**

*(Addendum B – Regulation 59)*

## REGULATION 60: CONTRIBUTION RATES

McCoy presented the Board with staff-recommended changes to Regulation 60 for initial approval. The amendments would update the employer contribution rate for PERS and ORP from 17.4 percent to 19.4 percent, as approved by the Board in accordance with law that ORP employers contribute the same amount as would be required if the PERS participant were a member. The amendment would also update the employer contribution rate for SLRP from 7.4 percent to 8.4 percent, as approved by the Board. Both amendments would be effective July 1, 2024.

- **Motion:** To provide initial approval of staff-recommended changes to Regulation 60 to update the employer contribution rate for PERS and ORP (17.4 percent to 19.4 percent) and SLRP (7.4 percent to 8.4 percent), effective July 1, 2024.
  - **Made by:** McCoy.
  - **Seconded by:** Benson.



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- **Discussion:** None.
- **Voting for:** Benson, Breland, Dale, Graham, Hanna, Howard, McCoy, Rutledge, and Smith.
- **Voting against:** McRae.
- **Absent:** None.
- **Duly Passed.**

(Addendum C – Regulation 60)

## REGULATION 43: INTEREST RATES

McCoy presented the Board with staff-recommended changes to Regulation 43 for initial approval. The amendment would provide the current assumed rate of return and provide historical rates for July 1, 2021, through June 30, 2023.

- **Motion:** To provide initial approval of staff-recommended changes to Regulation 43 to provide the current assumed rate of return and provide historical rates for July 1, 2021, through June 30, 2023.
  - **Made by:** McCoy.
  - **Seconded by:** Breland.
  - **Discussion:** None.
  - **Voting for:** Benson, Breland, Dale, Graham, Hanna, Howard, McRae, McCoy, Rutledge, and Smith.
  - **Voting against:** None.
  - **Absent:** None.
  - **Duly Passed.**

(Addendum D – Regulation 43)

## ANNUAL CREDITING OF INTEREST TO MEMBER ACCOUNTS

McCoy presented the Board with the 2024 Interest Rate for Member Accounts report, in accordance with Board Regulation 62, as follows:

In 2016, the PERS Board of Trustees approved the amendment of Regulation 62 to adjust the interest rate for member accumulation accounts. The interest rate is now calculated based on the money market rate as published by the Wall Street Journal on December 31 each year with a minimum rate of 1 percent and a maximum rate of 5 percent.

On December 31, 2023, the Money Market rate published in the Wall Street Journal was 0.48 percent; therefore, the interest rate paid shall remain set at the minimum rate of 1 percent as of July 1, 2024.

- **Motion:** To approve the 2024 Interest Rate for Member Accounts report presented by staff and to approve the interest rate for member accumulated accounts to remain set at the minimum rate of 1 percent as of July 1, 2024.
  - **Made by:** McCoy.
  - **Seconded by:** Rutledge.
  - **Discussion:** None.
  - **Voting for:** Benson, Breland, Dale, Graham, Hanna, Howard, McRae, McCoy, Rutledge, and Smith.
  - **Voting against:** None.
  - **Absent:** None.
  - **Duly Passed.**

## REPORT OF THE CLAIMS COMMITTEE

Committee Chair and Board Chair Benson reported that the Claims Committee met the morning of February 28, 2024, and considered the following items.

### Certification for Delinquent Contributions

Benson presented an update on the delinquent contribution status of Jefferson County Hospital.

- **Motion:** To certify \$146,524.27 in contribution payments and penalties due from Jefferson County Hospital and request staff to recover such amounts from state funds due from the agency, including taking any legal steps necessary.
  - **Made by:** Benson.
  - **Seconded by:** Graham.
  - **Discussion:** None.
  - **Voting for:** Benson, Breland, Dale, Graham, Hanna, Howard, McCoy, McRae, Rutledge, and Smith.
  - **Voting against:** None.

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- **Absent:** None.
- **Duly Passed.**

## Modify Joinder Agreement

Benson presented a joinder agreement modification for Pearl River County Board of Supervisors to include constables for retirement coverage, effective January 1, 2024.

- **Motion:** To modify Pearl River County Board of Supervisors' existing joinder agreement to include constables for retirement coverage, effective January 1, 2024.
  - **Made by:** Benson.
  - **Seconded by:** Breland.
  - **Discussion:** None.
  - **Voting for:** Benson, Breland, Dale, Graham, Hanna, Howard, McCoy, McRae, Rutledge, and Smith.
  - **Voting against:** None.
  - **Absent:** None.
  - **Duly Passed.**

## REPORT OF THE DEFINED CONTRIBUTION COMMITTEE

Committee Chair Rutledge reported that the Defined Contribution Committee met February 27, 2024, and heard a market update and performance review from Callan on Mississippi Deferred Compensation and the Optional Retirement Plan, as well as various miscellaneous updates. He also presented the Board with the following items for consideration.

### ORP Plan Document

Rutledge presented the Board with staff-recommended amendments to the ORP Plan Document for initial adoption.

- **Motion:** To approve for initial adoption the ORP Plan amendments as recommended by staff.
  - **Made by:** Rutledge.
  - **Seconded by:** McCoy.
  - **Discussion:** None.
  - **Voting for:** Benson, Breland, Dale, Graham, Hanna, Howard, McCoy, McRae, Rutledge, and Smith.
  - **Voting against:** None.
  - **Absent:** None.
  - **Duly Passed.**

*(Addendum E – ORP Plan Document)*

### TIAA CIT Options

Rutledge presented the committee with staff recommendations to approve TIAA CIT Options.

- **Motion:** To approve staff recommendation of TIAA CIT Options.
  - **Made by:** Rutledge.
  - **Seconded by:** Benson.
  - **Discussion:** None.
  - **Voting for:** Benson, Breland, Dale, Graham, Hanna, Howard, McCoy, McRae, Rutledge, and Smith.
  - **Voting against:** None.
  - **Absent:** None.
  - **Duly Passed.**

*(Addendum F – TIAA CIT Options)*

## REPORT OF THE LEGISLATIVE COMMITTEE

Committee Chair Dale reported that the Legislative Committee met the morning of February 28, 2024, and heard an overview of pending legislation for the 2024 session, as well as had a lengthy, worthwhile, and educational discussion of the bills. He said the committee will continue discussions as needed after the March 5, 2024, legislative filing deadline. No committee action was taken.

## REPORT OF THE INVESTMENT COMMITTEE

Committee Chair Breland reported that the Investment Committee met February 27, 2024. He reported that, while recent initial investment returns from the past week show the fund up 7.6 percent for FY 2024, official returns from Callan for the first six

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months of the fiscal year show the fund at 4.7 percent through December 31. He said the committee heard a market update and performance review from Callan that revealed that, over the last 15 years, PERS was in the 98<sup>th</sup> percentile (i.e., first) in performance among public pension funds of \$10 billion or greater. Breland said this performance is outstanding and gave kudos to the Investment team for its hard work. Breland said the committee also heard a Manager Fee Analysis that reported that PERS paid \$99.8 million in investment management fees for FY 2023, and the total fund expense ratio of .31 percent ranks in the lower quartile amounts peers. Breland said this was well done from the standpoint of the staff's ever-present effort to watch pennies when finding consultants. Breland said the committee also heard updates from Artisan MidCap Growth, Victory MidCap Value, and Eagle Large Cap. No committee action was taken.

## REPORT OF THE DISABILITY APPEALS COMMITTEE

Higgins presented the recommendations to the Board of the Disability Appeals Committee (DAC).

The DAC heard sworn testimony, received evidence, and gave due consideration to the applicable laws and regulations for the following case:

PERS No. 18-16 - This matter came on for hearing before the DAC August 28, 2023. The DAC submits to the Board of Trustees its Proposed Statement of Facts, Conclusions of Law, and Recommendation that the Claimant's request for non-duty-related disability benefits be approved.

- **Motion:** To accept the findings of the DAC and approve the DAC recommendations.
  - **Made by:** Graham.
  - **Seconded by:** Howard.
  - **Discussion:** None.
  - **Voting for:** Benson, Breland, Dale, Graham, Hanna, Howard, McCoy, McRae, Rutledge, and Smith.
  - **Voting against:** None.
  - **Absent:** None.
  - **Duly Passed.**

*(Addendum G – Disability Appeals Summary)*

## RETIREE REPORT

Higgins presented the Retiree Report for the Board's approval.

- **Motion:** To approve the Retiree Report.
  - **Made by:** Graham.
  - **Seconded by:** Breland.
  - **Discussion:** None.
  - **Voting for:** Benson, Breland, Dale, Graham, Hanna, Howard, McCoy, McRae, Rutledge, and Smith.
  - **Voting against:** None.
  - **Absent:** None.
  - **Duly Passed.**

*(Addendum H - Retiree Report)*

## INVESTMENT REPORT

Higgins presented the Investment Report. He requested board approval of this report, as well as of all trades and transactions performed by the PERS Investments division since the December 19, 2023, board meeting.

- **Motion:** To approve the Investment Report, as well as all trades and transactions performed by the PERS Investments division since the December 19, 2023, board meeting.
  - **Made by:** Rutledge.
  - **Seconded by:** Graham.
  - **Discussion:** None.
  - **Voting for:** Benson, Breland, Dale, Graham, Hanna, Howard, McCoy, McRae, Rutledge, and Smith.
  - **Voting against:** None.
  - **Absent:** None.
  - **Duly Passed.**

*(Addendum I - Investment Report)*

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## ECONOMIC INTEREST ETHICS DISCLOSURE

Higgins advised the Board of the May 1, 2024, deadline for submission of their Economic Interests Ethics Disclosure.

## ADJOURN

*Hanna called the meeting adjourned at 1:18 p.m.*

Respectfully Submitted,

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H. Ray Higgins, Jr.  
*Executive Director*  
Public Employees' Retirement System

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Ms. Kimberly Hanna  
*Chair*  
PERS Board of Trustees

HRH

# MINUTES | BOARD OF TRUSTEES

Special Called | Public Employees' Retirement System of Mississippi

March 15, 2024 | PERS Board Room

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## Board of Trustees Meeting Agenda *Special Called Meeting, March 15, 2024 1:00 P.M.*

- I. Call to Order
  - A. Approval of Agenda
- II. Update on Delinquent Contributions  
*(Intended Outcome – Certification of Delinquencies)*
  - A. Jefferson County Hospital
- III. Legislative Update
- IV. Other
- V. Adjourn

*The PERS board room on the fourth floor of 429 Mississippi Street, Jackson, MS, will be open to any member of the public who wishes to attend this meeting.*

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**Board Members:**

Ms. Kim Hanna, *Board Chair*  
Mr. Kelly Breland, *Board Vice Chair*  
Mr. Bill Benson  
Mr. George Dale  
Mr. Chris Graham

Mr. Chris Howard  
Dr. Randy McCoy  
Treasurer David McRae  
Dr. Brian Rutledge  
Dr. Jay Smith

# MINUTES | BOARD OF TRUSTEES

Special Called | Public Employees' Retirement System of Mississippi

March 15, 2024 | PERS Board Room

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The Public Employees' Retirement System of Mississippi (PERS) Board of Trustees met Friday, March 15, 2024, at 429 Mississippi Street, Jackson, MS 39201. This meeting was duly announced to the public Friday, March 15, 2024, at 9:49 a.m., on the Public Meetings Notice website of the Mississippi Department of Finance and Administration, as well as was posted in the PERS lobby and on the PERS website.

## BOARD MEMBER ATTENDEES

**In Person:** Mr. Bill Benson, Mr. George Dale, Mr. Chris Howard, and Dr. Randy McCoy.

**Absent:** Dr. Brian Rutledge.

**Current Board Vacancies:** None.

**Via Teleconference:** Board Chair Ms. Kim Hanna, Mr. Kelly Breland, Mr. Chris Graham, State Treasurer David McRae, and Dr. Jay Smith.

## LEGISLATIVE LIAISON ATTENDEES

**In Person:** Senator David Blount

## STAFF ATTENDEES

**In Person:** Executive Director Ray Higgins; Counsel and Policy Advisor Davetta Lee; Senior Deputy Administrator Office of Administrative Services Terri Hudson; Chief Investment Officer Charles Nielsen; Benefit Services Deputy Administrator Lisa Green; David DeGuire, Investments; Chief Information Officer Mike Lowry, Information Technology; and Communications Specialist Christine Anderson.

**Via Teleconference:** Ken Nason, IT; Member and Employer Services Deputy Administrator Mason Frantom and Communications Director Shelley Powers.

## GUEST ATTENDEES

**In Person:** Assistant Attorney General Suzanne Hudson; Amy Gamble; Allan Cooper, Mississippi Department of Finance and Administration; Chole Butler, Speaker of the Mississippi House of Representatives policy advisor; Ray Wright, Mississippi Joint Legislative Committee on Performance Evaluation and Expenditure Review; Lee Pittman, Corbin Stanford, Emily Tschifley, and Lee Ann Robinson, Legislative Budget Office; Mike Larsen, Mississippi Retired Public Employees' Association.

**Via Teleconference:** Ed Koebel, Cavanaugh Macdonald.

## CALL TO ORDER

*Benson called the meeting to order at 1:04 p.m.*

## AGENDA

- **Motion:** To approve the meeting agenda.
  - **Made by:** Dale.
  - **Seconded by:** McCoy.
  - **Discussion:** None.
  - **Voting for:** Benson, Breland, Dale, Graham, Hanna, Howard, McCoy, McRae, and Smith.
  - **Voting against:** None.
  - **Absent:** Rutledge.
  - **Duly Passed.**

## UPDATE ON DELINQUENT CONTRIBUTIONS

Higgins gave an update on the delinquent contribution status of Jefferson County Hospital.

- **Motion:** To certify \$54,047.62 in contribution payments and penalties due from Jefferson County Hospital and request staff to recover such amounts from state funds due from the agency, including taking any legal steps necessary.
  - **Made by:** Howard.
  - **Seconded by:** McCoy.
  - **Discussion:** None.
  - **Voting for:** Benson, Breland, Dale, Graham, Hanna, Howard, McCoy, McRae, and Smith.
  - **Voting against:** None.
  - **Absent:** Rutledge.
  - **Duly Passed.**

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Special Called | Public Employees' Retirement System of Mississippi

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## LEGISLATIVE UPDATE

HB 1590 was discussed. The bill as amended would largely restructure the current PERS Board with mostly appointees from the Governor and Lt. Governor as opposed to the majority being elected from the PERS membership. The bill also rescinded the scheduled employer contribution rate increase. The Board held a lengthy, frank, and candid discussion about their concerns with the bill and closed by confirming the Board's opposition.

- **Motion:** To oppose House Bill 1590 with the stipulation that the Board develop and issue a statement of opposition to be distributed to all proper entities as quickly as possible.
  - **Made by:** Dale.
  - **Seconded by:** McCoy.
  - **Discussion:** None.
  - **Voting for:** Benson, Breland, Dale, Hanna, Howard, McCoy, and Smith.
  - **Voting against:** Graham.
  - **Absent:** Rutledge.
  - **Abstained:** McRae.
  - **Duly Passed.**
- **Motion:** To delegate the board chair or her designee to approve the final board statement and any other materials associated with the statement.
  - **Made by:** Howard.
  - **Seconded by:** Dale.
  - **Discussion:** None.
  - **Voting for:** Benson, Breland, Dale, Graham, Hanna, Howard, McCoy, McRae, and Smith.
  - **Voting against:** None.
  - **Absent:** Rutledge.
  - **Duly Passed.**

## OTHER

No other business was discussed.

## ADJOURN

*Benson called the meeting adjourned at 2:35 p.m.*

Respectfully Submitted,

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H. Ray Higgins, Jr.  
*Executive Director*  
Public Employees' Retirement System

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Kim Hanna  
*Chair*  
PERS Board of Trustees

HRH

# **Public Employees' Retirement System**

## **Board of Trustees**

**April 24, 2024**

### **Proposed Amendments to Board Regulations**

Staff requests the Board's final approval of the proposed amendments to the following regulation:

#### **Regulation 59: Plan Assumptions**

The proposed amendments to Regulation 59 would update the actuarial assumptions for PERS, SLRP, and MHSPRS as approved by the PERS Board of Trustees. This regulation is updated every two years based on the most recent Experience Study.

The effective date of the proposed amendments will be July 1, 2024.



**Title 27: Personnel**

**Part 210: PERS, Regulations for Retirement Plans Administered by the Board of Trustees**

**Chapter 59: Plan Assumptions**

**100 Purpose**

This regulation reflects the applicable actuarial assumptions adopted by the Board of Trustees of the Public Employees' Retirement System of Mississippi (PERS Board) used to convert a retirement allowance from the normal (maximum) form of payment to an optional form of payment for the Public Employees' Retirement System of Mississippi, the Supplemental Legislative Retirement Plan, and the Mississippi Highway Safety Patrol Retirement System.

**101 Actuarial Assumptions for the Public Employees' Retirement System of Mississippi**

1. For purposes of determining an "actuarial equivalent" or of an "actuarial computation," effective July 1, ~~2022~~ 2024, the PERS Board shall use the following actuarial assumptions for service retirees:
  - a. For Service Retirees: The factors are based on the PubS.H-2010(B) Retiree Table with the following adjustments: for males, 95% of male rates from ages 18 to age 60, 110% for ages 61 to age 75 and scaled down to 101% for ages above 77. For females, 84% of the female rates from ages 18 to age 72 and scaled up to 100% for ages above 76. Projection scale MP-2020 is used to project future improvements in life expectancy generationally;
  - b. For Contingent Annuitants: The factors are based on the PubS.H-2010(B) Contingent Annuitant Table with the following adjustments: for males, 97% for all ages and for females, 110% for all ages. Projection scale MP-2020 is used to project future improvements in life expectancy generationally;
  - c. A ~~7.55~~ 7.00 percent interest assumption;
  - d. An annual Cost-of-Living Adjustment (COLA) of 3 percent is assumed to be on a compounded basis for all ages; and
  - e. Unisex blends of mortality rates are assumed as follows:
    - i. Annuity Values – 30 percent male/70 percent female
    - ii. Full Cash Refund – 30 percent male/70 percent female
    - iii. Certain and Life – 40 percent male/60 percent female
    - iv. Partial Lump Sum – 40 percent male/60 percent female
    - v. Joint and Survivor – 60 percent male/40 percent female
2. For purposes of determining an "actuarial equivalent" or of an "actuarial computation," effective July 1, ~~2022~~ 2024, the PERS Board shall use the following actuarial assumptions for disability retirees:
  - a. The factors are based on the Pub.G.H-2010 Disabled Retiree Table with the following adjustments: 134% of male rates at all ages and 121% of female rates at all ages. Projection scale MP-2020 is used to project future improvements in life expectancy generationally;
  - b. A ~~7.55~~ 7.00 percent interest assumption;

- c. An annual Cost-of-Living Adjustment (COLA) of 3 percent is assumed to be on a compounded basis for all ages; and
- d. Unisex blends of mortality rates are assumed as follows:
  - i. Annuity Values – 30 percent male/70 percent female
  - ii. Full Cash Refund – 30 percent male/70 percent female
  - iii. Certain and Life – 40 percent male/60 percent female
  - iv. Joint and Survivor – 60 percent male/40 percent female

## **102 Actuarial Assumptions for the Supplemental Legislative Retirement Plan**

1. For purposes of determining an “actuarial equivalent” or of an “actuarial computation,” effective July 1, ~~2022~~ 2024, the PERS Board shall use the following actuarial assumptions for service retirees:
  - a. For Service Retirees: The factors are based on the PubS.H-2010(B) Retiree Table with the following adjustments: for males, 95% of male rates from ages 18 to age 60, 110% for ages 61 to age 75 and scaled down to 101% for ages above 77. For females, 84% of the female rates from ages 18 to age 72 and scaled up to 100% for ages above 76. Projection scale MP-2020 is used to project future improvements in life expectancy generationally;
  - b. For Contingent Annuitants: The factors are based on the PubS.H-2010(B) Contingent Annuitant Table with the following adjustments: for males, 97% for all ages. For females, 110% for all ages. Projection scale MP-2020 is used to project future improvements in life expectancy generationally;
  - c. A ~~7.55~~ 7.00 percent interest assumption;
  - d. An annual Cost-of-Living Adjustment (COLA) of 3 percent is assumed to be on a compounded basis for all ages; and
  - e. Unisex blends of mortality rates are assumed as follows:
    - i. Annuity Values – 30 percent male/70 percent female
    - ii. Full Cash Refund – 30 percent male/70 percent female
    - iii. Certain and Life – 40 percent male/60 percent female
    - iv. Partial Lump Sum – 40 percent male/60 percent female
    - v. Joint and Survivor – 60 percent male/40 percent female
2. For purposes of determining an “actuarial equivalent” or of an “actuarial computation,” effective July 1, ~~2022~~ 2024, the PERS Board shall use the following actuarial assumptions for disability retirees:
  - a. The factors are based on the PubG.H-2010 Disabled Retiree Table for disabled retirees with the following adjustments: 134% of male rates at all ages and 121% of female rates at all ages. Projection scale MP-2020 is used to project future improvements in life expectancy generationally;
  - b. A ~~7.55~~ 7.00 percent interest assumption;
  - c. An annual Cost-of-Living Adjustment (COLA) of 3 percent is assumed to be on a compounded basis for all ages; and
  - d. Unisex blends of mortality rates are assumed as follows:
    - i. Annuity Values – 30 percent male/70 percent female
    - ii. Full Cash Refund – 30 percent male/70 percent female
    - iii. Certain and Life – 40 percent male/60 percent female
    - iv. Joint and Survivor – 60 percent male/40 percent female

**103 Actuarial Assumptions for the Mississippi Highway Safety Patrol Retirement System**

1. For purposes of determining an “actuarial equivalent” or of an “actuarial computation,” effective July 1, ~~2022~~ 2024, the PERS Board shall use the following actuarial assumptions for service retirees:
  - a. For Service Retirees: The factors are based on the PubS.H-2010(B) Retiree Table with the following adjustments: for males, 95% of male rates from ages 18 to age 60, 110% for ages 61 to age 75, and scaled down to 101% for ages above 77. For females, 84% of the female rates from ages 18 to age 72 and scaled up to 100% for ages above 76. Projection scale MP-2020 is used to project future improvements in life expectancy generationally;
  - b. For Contingent Annuitants: The factors are based on the PubS.H-2010(B) Contingent Annuitant Table with the following adjustments: for males, 97% for all ages. For females, 110% for all ages. Projection scale MP-2020 is used to project future improvements in life expectancy generationally;
  - c. A ~~7.55~~ 7.00 percent interest assumption;
  - d. An annual Cost-of-Living Adjustment (COLA) of 3 percent is assumed to be on a compounded basis for all ages; and
  - e. 95 percent male/5 percent female mortality rates are assumed for all option factors.
2. For purposes of determining an “actuarial equivalent” or of an “actuarial computation,” effective July 1, ~~2022~~ 2024, the PERS Board shall use the following actuarial assumptions for disability retirees:
  - a. The factors are based on the PubG.H-2010 Disabled Retiree Table with the following adjustments: 134% of male rates at all ages and 121% of female rates at all ages. Projection scale MP-2020 is used to project future improvements in life expectancy generationally;
  - b. A ~~7.55~~ 7.00 percent interest assumption;
  - c. An annual Cost-of-Living Adjustment (COLA) of 3 percent is assumed to be on a compounded basis for all ages; and
  - d. 95 percent male/5 percent female mortality rates are assumed for all option factors.

**104 Application of Assumptions**

Whenever the amount of any benefit is to be determined on the basis of actuarial assumptions, such assumptions will be specified in PERS Board actions and regulations in a manner that precludes employer discretion.

(History of PERS Board Regulation 59: Adopted effective January 19, 2009; amended effective July 1, 2010; amended effective July 1, 2012; amended effective July 1, 2014, amended effective July 1, 2016; amended effective July 1, 2018; amended effective July 1, 2020; amended effective July 1, 2022, July 1, 2024)

# Public Employees' Retirement System

## Board of Trustees

April 24, 2024

### Proposed Amendments to Board Regulations

Staff requests the Board's final approval of the proposed amendments to the following regulation:

#### **Regulation 60: Contribution Rates**

Amend Sections 101 and 104 to update the employer contribution rate for the Public Employees' Retirement System (PERS) and the Optional Retirement Program (ORP) from 17.40% to 19.40% as approved by the Board. In accordance with Miss. Code Ann. § 25-11-411, ORP employers shall contribute the same amount the employer would be required to contribute to PERS if the participant were a member.

Amends Section 102 to update the employer contribution rate for the Supplemental Legislative Retirement Plan (SLRP) from 7.40% to 8.40% as approved by the Board.

The effective date of the proposed amendments will be July 1, 2024.

**Title 27: Personnel**

**Part 210: PERS, Regulations for Retirement Plans Administered by the Board of Trustees**

**Chapter 60: Contribution Rates**

**100 Purpose**

This regulation reflects the current employee and employer contribution rates for the Public Employees' Retirement System of Mississippi, the Supplemental Legislative Retirement Plan, the Mississippi Highway Safety Patrol Retirement System, and the Optional Retirement Program for Employees of the State Institutions of Higher Learning.

**101 Contribution Rates for the Public Employees' Retirement System of Mississippi**

Pursuant to Miss. Code Ann. § 25-11-123 (1972, as amended), the Board of Trustees of the Public Employees' Retirement System of Mississippi is authorized to set the contribution rates for both employee and employer contributions based on the basis of the liabilities of the retirement system as shown by the actuarial valuation.

The employee and employer contribution rates are as follows:

1. Employee Contribution Rate - 9.00 percent of earned compensation effective July 1, 2010; and
2. Employer Contribution Rate - ~~17.40~~ 19.40 percent of earned compensation effective ~~July 1, 2019~~ July 1, 2024.

**102 Contribution Rates for the Supplemental Legislative Retirement Plan**

Pursuant to Miss. Code Ann. § 25-11-307 (1972, as amended), the Board of Trustees is authorized to set the employer contribution rate on the basis of the liabilities of the plan as shown by the actuarial valuation.

The employee and employer contribution rates are as follows:

1. Employee Contribution Rate – 3.00 percent of earned compensation effective July 1, 1989; and
2. Employer Contribution Rate – ~~7.40~~ 8.40 percent of earned compensation effective ~~January 1, 2012~~ July 1, 2024.

**103 Contribution Rates for the Mississippi Highway Safety Patrol Retirement System**

Pursuant to Miss. Code Ann. § 25-13-7 (1972, as amended), the Board of Trustees of the Public Employees' Retirement System is authorized to set the employee contribution rate on the basis of the liabilities of the plan as shown by the actuarial valuation. Pursuant to Miss. Code Ann. § 25-13-29 (1972, as amended), the administrative board of the Mississippi Highway Safety Patrol Retirement System is authorized to set biennially the employer contribution percentage rate on the basis of the liabilities of the retirement system as shown by the actuarial valuation.

The employee and employer contribution rates are as follows:

1. Employee Contribution Rate – 7.25 percent of earned compensation effective July 1, 2008; and
2. Employer Contribution Rate – 49.08 percent of earned compensation effective July 1, 2018.

Pursuant to Miss. Code Ann. § 63-15-71 (1972, as amended), the Legislature has levied an additional fee for each certified abstract of operating record furnished by the Motor Vehicle Commission. This fee is deposited into the Mississippi Highway Safety Patrol Retirement System for application to the unfunded accrued liability.

Pursuant to Miss. Code Ann. § 63-1-46 (1972, as amended), the Legislature has levied a fee for the reinstatement of an individual's suspended driver's license and has provided that a portion of that fee shall be paid to PERS to provide additional funding for the Mississippi Highway Safety Patrol Retirement System.

#### **104 Contribution rates for the Optional Retirement Program for Employees of the State Institutions of Higher Learning**

1. Pursuant to Miss. Code Ann. § 25-11-411 (1972, as amended), each participant is required to contribute monthly to the optional retirement program the same amount that he or she would be required to contribute to the Public Employees' Retirement System of Mississippi if he or she were a member of that plan.

Each employer of a participant in the optional retirement program shall contribute on behalf of each participant therein the same amount the employer would otherwise be required to contribute on behalf of such participant if he or she participated in the Public Employees' Retirement System.

The Board of Trustees of the Public Employees' Retirement System is authorized to set the contribution rate for both employee and employer contributions based on the basis of the liabilities of the Public Employees' Retirement System as shown by the actuarial valuation.

The employee and employer contribution rates are as follows:

- a. Employee Contribution Rate - 9.00 percent of earned compensation effective July 1, 2010; and
  - b. Employer Contribution Rate - ~~17.40~~ 19.40 percent of earned compensation effective ~~July 1, 2019~~ July 1, 2024.
2. Pursuant to Miss. Code Ann. § 25-11-415 (1972, as amended) the Board of Trustees is authorized to deduct not more than two percent (2%) of the employers' contribution to defray the cost of administering the plan. Effective July 1, 2009, this administrative fee shall be one percent (1%) of the employers' total contribution which shall be transferred each month to PERS when contributions are due.
  3. The full amount of the employee contribution which is 9.00 percent of the participant's earned compensation shall be remitted to the appropriate company or companies for application to the participant's contract or account or both.

4. The employers' contribution of ~~seventeen and four tenths percent (17.40%)~~ nineteen and four tenths percent (19.40%) of the participant's earned compensation shall be disbursed as follows:
- a. One percent (1%) of the employer contributions (or the equivalent of ~~0.174~~ 0.194 percent of the participant's earned compensation) shall be paid to PERS as an administrative fee.
  - b. Two and one-half percent (2.5%) of the participant's earned compensation reduced by the pro-rata share of the 1% administrative fee, or an equivalent of 2.475 percent of the participant's earned compensation, shall be remitted to PERS for application to the unfunded accrued liability.
  - c. ~~Fourteen and nine tenths percent (14.90%)~~ Sixteen and nine tenths percent (16.9) of the participant's earned compensation reduced by the pro-rata share of the 1% administrative fee, or an equivalent of ~~14.751~~ 16.731 percent of the participant's earned compensation, shall be remitted to the appropriate company or companies for application to the participant's contract or account or both.

(History of PERS Board Regulation 60: Adopted effective January 19, 2009; amended effective July 1, 2009; amended effective July 1, 2010; amended effective July 1, 2011; amended effective July 1, 2012; amended effective July 1, 2013; amended effective February 1, 2014; amended effective July 1, 2018; amended effective July 1, 2019; amended effective July 1, 2024)

# Public Employees' Retirement System

## Board of Trustees

**April 24, 2024**

### **Proposed Amendments to Board Regulations**

Staff requests the Board's final approval of the proposed amendments to the following regulation:

#### **Regulation 43: Interest Rates Used in the Calculation of Repayment of a Refund and for Correction of Administrative Reporting Errors**

The proposed amendments to Regulation 43 would provide the current assumed rate of return and provide historical rates for July 1, 2021 through June 30, 2023.

The effective date of the proposed amendments will be July 1, 2024.



**Part 210 Chapter 43      Interest Rates Used in the Calculation of Repayment of a Refund and for Correction of Administrative Reporting Errors**

**100      Purpose**

The purpose of this regulation is to clarify the interest rates used in calculating the repayment of a refund of contributions or in reporting paying interest on unreported contributions.

**101      Interest rate of fiscal years prior to July 1, 1994**

For fiscal years prior to July 1, 1994, interest, as required in Miss. Code Ann. §25-11-117 (1972, as amended), for the repayment of a refund, or as required in Miss. Code Ann. §25-11-105 (1972, as amended) for the payment of an adjustment for non-reported covered service and/or compensation due to administrative error, shall be calculated on the basis of the interest rate adopted by the PERS Board of Trustees. This interest rate was based on the actuarial assumed interest rate of the System.

**102      Interest rate for fiscal years beginning on and after July 1, 1994, through June 30, 1998**

For the fiscal year beginning on and after July 1, 1994, through June 30, 1998, interest as required in Miss. Code Ann. §25-11-117 (1972, as amended), for the repayment of a refund, or as required in Miss. Code Ann. §25-11-105 (1972, as amended) for the payment of an adjustment for non-reported covered service and/or compensation due to administrative error, shall be computed on the basis of actual annual total rate of return on investments of the System as reflected in the System's annual report, but in no event will interest so charged be less than the rate of interest credited to the member's account in accordance with § 25-11-121(7).

**103      Interest rate for fiscal years beginning on and after July 1, 1998**

For each fiscal year beginning on and after July 1, 1998, interest as required above, shall be computed on the basis of the actuarial assumed interest rate of the System.

- The assumed rate of return from July 1, 1998 through June 30, 2015 was 8.0%.
- The assumed rate of return from July 1, 2015 through June 30, 2021 was 7.75%.
- The assumed rate of return as of July 1, 2021 ~~is 7.55%~~ through June 30, 2023 was 7.55%.
- The assumed rate of return as of July 1, 2023 is 7.0%.

**104      Interest rate to be credited to member's account upon repayment of refund**

Effective on and after July 1, 1994, upon payment of a refund or adjustment, as provided for above, the member's account shall be credited with interest as provided in Miss. Code Ann. §25-11-121(7) (1972, as amended), equal to the interest which would have been posted had the member's contributions been in the plan on a continuous basis. Such interest credit shall apply only to periods of time from and after July 1, 1994.

(History: Adopted August 17, 1993; amended June 25, 1998; amended June 21, 2005, to be effective August 1, 2005; reformatted August 1, 2007; amended effective December 1, 2015; amended effective December 1, 2021, amended effective July 1, 2024)

## **FUNDING POLICY OF THE PUBLIC EMPLOYEES’ RETIREMENT SYSTEM OF MISSISSIPPI**

The purpose of the funding policy is to state the overall funding goals and objectives for the Public Employees’ Retirement System of Mississippi (PERS), and to document both the metrics that will be used to measure progress toward achieving those goals, and the methods and assumptions employed to develop the metrics.

The employer contribution rate for PERS will be set based on the metrics, assumptions and methods outlined in Section II and III of this policy.

### **I. Funding Goals and Objectives**

The objective in requiring employer and member contributions to PERS is to accumulate sufficient assets during a member’s employment to fully finance the benefits the member will receive in retirement. In meeting this objective, PERS will strive to meet the following goals:

- Preservation of the defined benefit structure for providing lifetime benefits to the PERS membership,
- Contribution rate stability as a percentage of payroll (Fixed Contribution Rate – FCR),
- Maintain an increasing trend in the funded ratio over the projection period with an ultimate goal of being 100% funded,
- Require clear reporting and risk analysis of the metrics by the actuary as outlined in Section II of this policy using a “Signal Light” approach to assist the Board in determining whether increases or decreases are needed in the employer contribution rate, and
- Ensure benefit improvements are funded through increases in contribution requirements in accordance with Article 14, S 272A, of the Mississippi Constitution.

## II. Metrics

To track progress in achieving the outlined funding goals and objectives and to assist the Board in making a determination whether an increase or decrease in the employer contribution rate for PERS should be considered, certain metrics will be measured annually in conjunction with information provided in the actuarial valuation and projection report. As part of the annual valuation and projection reports, each metric will be calculated and assigned a “Signal Light” with the following definitions:

Status	Definition
Green	Plan passes metric and PERS’ funding goals, and objectives are achieved
Yellow	Plan passes metric but a warning is issued that negative experience may lead to failing status
Red	Plan fails metric and PERS must consider contribution increases

If any one of the metrics are in the Red Signal Light status in conjunction with the annual valuation report and the projection report-the actuary will determine and recommend to the Board an employer contribution rate increase to consider that is sufficient enough to get all three metrics back into the Green Signal Light status. The employer contribution rate increase would be effective for the July 1<sup>st</sup>, 18 months following the completion of the projection report (e.g., if the projection report in ~~2019~~2023 deems an increase to be considered, then it would be effective for July 1, ~~2024~~2025).

The following metrics will be measured:

- **Funded Ratio** – Funded Ratio is defined as the actuarial value of assets divided by the actuarial accrued liability. One of the funding goals is to have an increasing funded ratio over the projection period with an ultimate goal of having a 100 percent funded ratio. The Board sets the Signal Light definition as follows:

Status	Definition
Green	Funded Ratio above 80% in 2047
Yellow	Funded Ratio between 65% and 80% in 2047
Red	Funded Ratio below 65% in 2047

- Cash flow as a percentage of assets** – Cash flow as a percentage of assets is defined as the difference between total contributions coming into the trust and the benefit payments made to retirees and beneficiaries going out of the trust as a percentage of beginning year market value of assets. Over the projection period, this percentage will fluctuate from year to year so for Signal Light testing, the net cash flow percentage over the entire projection period will be tested. The Board sets the Signal Light definition as follows:

Status	Definition
Green	Net Cash Flow Percentage above negative <del>5.80%</del> <del>(-5.80%)</del> <u>5.25%</u> <del>(-5.25%)</del> during the projection period
Yellow	Net Cash Flow Percentage between negative <del>5.80%</del> <del>(-5.80%)</del> <u>5.25%</u> <del>(-5.25%)</del> and negative <del>7.55%</del> <del>(-7.55%)</del> <u>7.00%</u> <del>(-7.00%)</del> during the projection period
Red	Net Cash Flow Percentage below negative <del>7.55%</del> <del>(-7.55%)</del> <u>7.00%</u> <del>(-7.00%)</del> during the projection period

- **Actuarially Determined Contribution (ADC)** – ADC is defined as the contribution requirement determined by the actuary using a contribution allocation procedure based on the principal elements disclosed in Section III of this funding policy:
  1. Actuarial Cost Method
  2. Asset Smoothing Method
  3. Amortization Method

The calculation of the ADC will be determined during the actuarial valuation and not during the projection report. The ratio of the ADC to the fixed contribution rate (ADC/FCR) as set by this Funding Policy will be tested.

The Board sets the Signal Light definition as follows:

Status	Definition
Green	ADC ratio at or below 100% of fixed contribution rate at valuation date
Yellow	ADC ratio between 100% and 110% of fixed contribution rate at valuation date
Red	ADC ratio above 110% of fixed contribution rate at valuation date

### III. Assumptions and Methods

Each year, the actuary will perform an actuarial valuation and projection report for funding purposes. During the process, the actuary shall calculate all the metrics listed in Section II of this funding policy and PERS' Signal Light status for each metric. The following three major components of a funding valuation will be used:

- **Actuarial Cost Method** – This component determines the attribution method upon which the cost/liability of the retirement benefits are allocated to a given period, defining the normal cost or annual accrual rate associated with projected benefits. The Entry Age Normal Cost Method (EAN) is to be used for determination of the normal cost rate and the actuarial accrued liability for purposes of calculating the Actuarial Determined Contribution (ADC).
- **Asset Valuation Method** – This component dictates the method by which the asset value, used in the determination of the Unfunded Actuarial Accrued Liability (UAAL) and Funded Ratio, is

determined. The asset valuation method to be used shall be a five-year smoothed market value of assets. The difference between the actual market value investment returns and the expected market investment returns is recognized equally over a five-year period.

- **Amortization Method** – This component prescribes, in terms of duration and pattern, the systematic manner in which the difference between the accrued liability and the actuarial value of assets is reduced. For purposes of calculating the ADC metric, the following amortization method assumptions are used:
  1. Once established for any component of the UAAL, the amortization period for that component will be closed and will decrease by one year annually.
  2. The amortization payment will be determined on a level percentage of pay basis.
  3. The length of the amortization periods will be as follows:
    - a. Existing UAAL on June 30, 2018 – 30 years.
    - b. Annual future actuarial experience gains and losses, assumption changes or benefit enhancements or reductions – 25 years from the date of the valuation.
  4. If any future annual actuarial valuation indicates that PERS has a negative UAAL, the ADC shall be set equal to the Normal Cost.
- **Actuarial Assumptions** – The actuarial assumptions are used to develop the annual and projected actuarial metrics, as well as the ADC rates. The actuarial assumptions are derived and proposed by the actuary and adopted by the PERS' Board in conformity with the *Actuarial Standards of Practice*. The actuarial assumptions for this funding policy were developed using the experience for the four-year period ending June 30, ~~2020~~2022 (State of Mississippi Retirement Systems Experience Investigation for the Four-Year Period Ending June 30, ~~2020~~2022). The long-term investment return assumption adopted by the PERS' Board in conjunction with the experience investigation is ~~7.55 percent and, upon approval by the Board, will be reduced until it reaches the rate recommended by the actuary in the most recent experience study using investment gains based on the following parameters:~~
  - ~~2% Excess return over assumed rate, lower assumption by 5 basis points;~~
  - ~~5% Excess return over assumed rate, lower assumption by 10 basis points;~~
  - ~~8% Excess return over assumed rate, lower assumption by 15 basis points;~~
  - ~~12% Excess return over assumed rate, lower assumption by 20 basis points.~~7.00 percent.

#### IV. Governance Policy/Process

Below is a list of specific actuarial and funding related studies, the frequency at which they should be commissioned by the Board and additional responsibilities related to each:

- **Actuarial Valuation (performed annually)** – The Board is responsible for the review of PERS’ annual actuarial valuation report, which provides the annual funded ratio and the calculation of the ADC.
- **Projection Report (performed annually)** – The Board is responsible for the review of PERS’ 30-year projection report, which will include the actuarial metrics and Signal Light status for each metric over a 30-year period.
- **Experience Analysis (performed every two years on a rolling four-year-basis)** – The Board is responsible for ensuring that an experience analysis is performed as prescribed, review of the results of the study, and approving the actuarial assumptions and methodologies to be used for all actuarial purposes relating to the defined benefit pension plan.
- **Actuarial Audit (performed at least every five years)** – The Board is responsible for the review of an audit report performed by a new actuarial firm to provide a critique of the reasonableness of the actuarial methods and assumptions in use and the resulting actuarially computed liabilities and contribution rates.
- **Funding Policy Review (performed at least annually)** – The Board is responsible for the periodic review of this policy, but at least annually following the Projection Report and biennially following the Experience Analysis.

#### V. Glossary of Funding Policy Terms

- **Actuarial Accrued Liability (AAL):** The AAL is the value at a particular point in time of all past normal costs. This is the amount of assets the plan would have today if the current plan provisions, actuarial assumptions, and participant data had always been in effect, contributions equal to the normal cost had been made, and all actuarial assumptions had been met.
- **Actuarial Cost Method:** The actuarial cost method allocates a portion of the total cost (present value of benefits) to each year of service, both past service and future service.
- **Actuarial Determined Contribution (ADC):** The potential payment to the plan as determined by the actuary using a contribution allocation procedure that, if contributed consistently and combined with investment earnings, would be sufficient to pay promised benefits in full over the long term. The ADC may or may not be the amount actually paid by the plan sponsor or other contributing entity.

- **Asset Values:**
  - **Actuarial Value of Assets (AVA):** The AVA is the market value of assets less the deferred investment gains or losses not yet recognized by the asset smoothing method.
  - **Market Value of Assets (MVA):** The MVA is the fair value of assets of the plan as reported in the plan's audited financial statements.
- **Entry Age Normal Actuarial Cost Method (EAN):** The EAN actuarial cost method is a funding method that calculates the normal cost as a level percentage of pay or level dollar amount over the working lifetime of the plan's members.
- **Funded Ratio:** The funded ratio is the ratio of the plan assets to the plan's actuarial accrued liabilities.
  - **Actuarial Value Funded Ratio:** is the ratio of the AVA to the AAL.
- **Normal Cost:** The normal cost is the cost allocated under the actuarial cost method to each year of active member service.
- **Present Value of Benefits (PVB) or total cost:** The PVB is the value at a particular point in time of all projected future benefit payments for current plan members. The future benefit payments and the value of those payments are determined using actuarial assumptions regarding future events. Examples of these assumptions are estimates of retirement and termination patterns, salary increases, investment returns, etc.
- **Surplus:** A surplus refers to the positive difference, if any, between the AVA and the AAL.
- **Unfunded Actuarial Accrued Liability (UAAL):** The UAAL is the portion of the AAL that is not currently covered by the AVA. It is the positive difference between the AAL and the AVA.
- **Valuation Date:** The valuation date is the annual date upon which an actuarial valuation is performed; meaning that the trust assets and liabilities of the plan are valued as of that date. PERS' annual valuation date is June 30.



# HSPRS Funding Policy 2023 - FINAL

The purpose of the funding policy is to state the overall funding goals and objectives for the Mississippi Highway Safety Patrol Retirement System (HSPRS), and to document both the metrics that will be used to measure progress toward achieving those goals, and the methods and assumptions employed to develop the metrics. The employer contribution rate for HSPRS will be set based on the metrics, assumptions and methods outlined in Section II and III of this policy.

## **I. Funding Goals and Objectives**

The objective in requiring employer and member contributions to HSPRS is to accumulate sufficient assets during a member's employment to fully finance the benefits the member will receive in retirement. In meeting this objective, HSPRS will strive to meet the following goals:

- Preservation of the defined benefit structure for providing lifetime benefits to the HSPRS membership,
- Contribution rate stability as a percentage of payroll (Fixed Contribution Rate – FCR),
- Maintain an increasing trend in the funded ratio over the projection period with an ultimate goal of being 100% funded,
- Require clear reporting and risk analysis of the metrics by the actuary as outlined in Section II of this policy using a “Signal Light” approach to assist the Board in determining whether increases or decreases are needed in the employer contribution rate, and
- Ensure benefit improvements are funded through increases in contribution requirements in accordance with Article 14, S 272A, of the Mississippi Constitution.

## **II. Metrics**

To track progress in achieving the outlined funding goals and objectives and to assist the Board in making a determination whether an increase or decrease in the employer contribution rate for HSPRS should be considered, certain metrics will be measured annually in conjunction with information provided in the actuarial valuation and projection report. As part of the annual valuation and projection reports, each metric will be calculated and assigned a “Signal Light” with the following definitions:

Status	Definition
Green	Plan passes metric and HSPRS' funding goals, and objectives are achieved
Yellow	Plan passes metric but a warning is issued that negative experience may lead to failing status
Red	Plan fails metric and HSPRS must consider contribution increases

If any one of the metrics are in the Red Signal Light status in conjunction with the annual valuation report and the projection report, the actuary will determine and recommend to the Board an employer contribution rate increase to consider that is sufficient enough to get all three metrics back into the Green Signal Light status. The employer contribution rate increase would be effective beginning July 1<sup>st</sup>, 18 months following the completion of the projection report (e.g., if the projection report in 2024 deems an increase to be considered, then it would be effective for July 1, 2026).

The following metrics will be measured:

- **Funded Ratio** – Funded Ratio is defined as the actuarial value of assets divided by the actuarial accrued liability. One of the funding goals is to have an increasing funded ratio over the projection period with an ultimate goal of having a 100 percent funded ratio. The Board sets the Signal Light definition as follows:

Status	Definition
Green	Funded Ratio above 90% in 2047
Yellow	Funded Ratio between 70% and 90% in 2047
Red	Funded Ratio below 70% in 2047

- **Cash flow as a percentage of assets** – Cash flow as a percentage of assets is defined as the difference between total contributions coming into the trust and the benefit payments made to retirees and beneficiaries going out of the trust as a percentage of beginning year market value of assets. Over the projection period, this percentage will fluctuate from year to year so for Signal Light testing, the net cash flow percentage over the entire projection period will be tested. The Board sets the Signal Light definition as follows:

Status	Definition
Green	Net Cash Flow Percentage above negative 5.25% (-5.25%) during the projection period
Yellow	Net Cash Flow Percentage between negative 5.25% (-5.25%) and negative 7.00% (-7.00%) during the projection period
Red	Net Cash Flow Percentage below negative 7.00% (-7.00%) during the projection period

- **Actuarially Determined Contribution (ADC)** – ADC is defined as the contribution requirement determined by the actuary using a contribution allocation procedure based on the principal elements disclosed in Section III of this funding policy:
  1. Actuarial Cost Method
  2. Asset Smoothing Method
  3. Amortization Method

The calculation of the ADC will be determined during the actuarial valuation and not during the projection report. The ratio of the ADC to the fixed contribution rate (ADC/FCR) as set by this Funding Policy will be tested. The Board sets the Signal Light definition as follows:

Status	Definition
Green	ADC ratio at or below 100% of fixed contribution rate at valuation date
Yellow	ADC ratio between 100% and 110% of fixed contribution rate at valuation date
Red	ADC ratio above 110% of fixed contribution rate at valuation date

If all of the metrics are in the Green Signal Light status in conjunction with the annual valuation report and the projection report and the following additional criteria is met for two consecutive valuation and projection cycles, the actuary may recommend to the Board an employer contribution rate decrease to consider. The additional criteria is based on the actuary's long-term investment return assumption recommended by the actuary in the most recent experience study and is as follows:

- Funded Ratio in 2047 is above 110%,
- Cash Flow as a percentage of assets is above negative 3.5% during the projection period, and
- ADC Ratio is below 90% for all years of the projection period.

### III. Assumptions and Methods

Each year, the actuary will perform an actuarial valuation and projection report for funding purposes. During the process, the actuary shall calculate all the metrics listed in Section II of this funding policy and HSPRS' Signal Light status for each metric. The following three major components of a funding valuation will be used:

- **Actuarial Cost Method** – This component determines the attribution method upon which the cost/liability of the retirement benefits are allocated to a given period, defining the normal cost or annual accrual rate associated with projected benefits. The Entry Age Normal Cost Method (EAN) is to be used for determination of the normal cost rate and the actuarial accrued liability for purposes of calculating the Actuarial Determined Contribution (ADC).

- **Asset Valuation Method** – This component dictates the method by which the asset value, used in the determination of the Unfunded Actuarial Accrued Liability (UAAL) and Funded Ratio, is determined. The asset valuation method to be used shall be a five-year smoothed market value of assets. The difference between the actual market value investment returns and the expected market investment returns is recognized equally over a five-year period.
- **Amortization Method** – This component prescribes, in terms of duration and pattern, the systematic manner in which the difference between the accrued liability and the actuarial value of assets is reduced. For purposes of calculating the ADC metric, the following amortization method assumptions are used:
  - I. Once established for any component of the UAAL, the amortization period for that component will be closed and will decrease by one year annually.
  - II. The amortization payment will be determined on a level percentage of pay basis.
  - III. The length of the amortization periods will be as follows:
    - a. Existing UAAL on June 30, 2023 – 25 years.
    - b. Annual future actuarial experience gains and losses, assumption changes or benefit enhancements or reductions – 25 years from the date of the valuation.
  - IV. If any future annual actuarial valuation indicates that HSPRS has a negative UAAL, the ADC shall be set equal to the Normal Cost.
- **Actuarial Assumptions** – The actuarial assumptions are used to develop the annual and projected actuarial metrics, as well as the ADC rates. The actuarial assumptions are derived and proposed by the actuary and adopted by the PERS' Board in conformity with the *Actuarial Standards of Practice*. The actuarial assumptions for this funding policy were developed using the experience for the four-year period ending June 30, 2022 (State of Mississippi Retirement Systems Experience Investigation for the Four-Year Period Ending June 30, 2022). The long-term investment return assumption adopted by the PERS' Board in conjunction with the experience investigation is 7.00 percent.

#### IV. Governance Policy/Process

Below is a list of specific actuarial and funding related studies, the frequency at which they should be commissioned by the Board and additional responsibilities related to each:

- **Actuarial Valuation (performed annually)** – The Board is responsible for the review of HSPRS' annual actuarial valuation report, which provides the annual funded ratio and the calculation of the ADC.
- **Projection Report (performed annually)** – The Board is responsible for the review of HSPRS' 30-year projection report, which will include the actuarial metrics and Signal Light status for each metric over a 30-year period.
- **Experience Analysis (performed every two years on a rolling four-year)** – The Board is responsible for ensuring that an experience analysis is performed as prescribed, review of the results of the study, and approving the actuarial assumptions and methodologies to be used for all actuarial purposes relating to the defined benefit pension plan.
- **Actuarial Audit (performed at least every five years)** – The Board is responsible for the review of an audit report performed by a new actuarial firm to provide a critique of the reasonableness of the actuarial methods and assumptions in use and the resulting actuarially computed liabilities and contribution rates.
- **Funding Policy Review (performed at least annually)** – The Board is responsible for the periodic review of this policy, but at least annually following the Projection Report and biennially following the Experience Analysis.

#### V. Glossary of Funding Policy Terms

- **Actuarial Accrued Liability (AAL):** The AAL is the value at a particular point in time of all past normal costs. This is the amount of assets the plan would have today if the current plan provisions, actuarial assumptions, and participant data had always been in effect, contributions equal to the normal cost had been made, and all actuarial assumptions had been met.
- **Actuarial Cost Method:** The actuarial cost method allocates a portion of the total cost (present value of benefits) to each year of service, both past service and future service.
- **Actuarial Determined Contribution (ADC):** The potential payment to the plan as determined by the actuary using a contribution allocation procedure that, if contributed consistently and combined with investment earnings, would be sufficient to pay promised benefits in full over the long term. The ADC may or may not be the amount actually paid by the plan sponsor or other contributing entity.
- **Asset Values:**
  - **Actuarial Value of Assets (AVA):** The AVA is the market value of assets less the deferred investment gains or losses not yet recognized by the asset smoothing method.
  - **Market Value of Assets (MVA):** The MVA is the fair value of assets of the plan as reported in the plan's audited financial statements.
- **Entry Age Normal Actuarial Cost Method (EAN):** The EAN actuarial cost method is a funding method that calculates the normal cost as a level percentage of pay or level dollar amount over the working lifetime of the plan's members.

- **Funded Ratio:** The funded ratio is the ratio of the plan assets to the plan's actuarial accrued liabilities.
  - **Actuarial Value Funded Ratio:** is the ratio of the AVA to the AAL.
- **Normal Cost:** The normal cost is the cost allocated under the actuarial cost method to each year of active member service.
- **Present Value of Benefits (PVB) or total cost:** The PVB is the value at a particular point in time of all projected future benefit payments for current plan members. The future benefit payments and the value of those payments are determined using actuarial assumptions regarding future events. Examples of these assumptions are estimates of retirement and termination patterns, salary increases, investment returns, etc.
- **Surplus:** A surplus refers to the positive difference, if any, between the AVA and the AAL.
- **Unfunded Actuarial Accrued Liability (UAAL):** The UAAL is the portion of the AAL that is not currently covered by the AVA. It is the positive difference between the AAL and the AVA.
- **Valuation Date:** The valuation date is the annual date upon which an actuarial valuation is performed; meaning that the trust assets and liabilities of the plan are valued as of that date. HSPRS' annual valuation date is June 30.

# SLRP Funding Policy 2023 - FINAL



The purpose of the funding policy is to state the overall funding goals and objectives for the Supplemental Legislative Retirement Plan of Mississippi (SLRP), and to document both the metrics that will be used to measure progress toward achieving those goals, and the methods and assumptions employed to develop the metrics. The employer contribution rate for SLRP will be set based on the metrics, assumptions and methods outlined in Section II and III of this policy.

## I. Funding Goals and Objectives

The objective in requiring employer and member contributions to SLRP is to accumulate sufficient assets during a member's employment to fully finance the benefits the member will receive in retirement. In meeting this objective, SLRP will strive to meet the following goals:

- Preservation of the defined benefit structure for providing lifetime benefits to the SLRP membership,
- Contribution rate stability as a percentage of payroll (Fixed Contribution Rate – FCR),
- Maintain an increasing trend in the funded ratio over the projection period with an ultimate goal of being 100% funded,
- Require clear reporting and risk analysis of the metrics by the actuary as outlined in Section II of this policy using a "Signal Light" approach to assist the Board in determining whether increases or decreases are needed in the employer contribution rate, and
- Ensure benefit improvements are funded through increases in contribution requirements in accordance with Article 14, S 272A, of the Mississippi Constitution.

## II. Metrics

To track progress in achieving the outlined funding goals and objectives and to assist the Board in making a determination whether an increase or decrease in the employer contribution rate for SLRP should be considered, certain metrics will be measured annually in conjunction with information provided in the actuarial valuation and projection report. As part of the annual valuation and projection reports, each metric will be calculated and assigned a "Signal Light" with the following definitions:

Status	Definition
Green	Plan passes metric and SLRP funding goals, and objectives are achieved
Yellow	Plan passes metric but a warning is issued that negative experience may lead to failing status
Red	Plan fails metric and SLRP must consider contribution increases

If any one of the metrics are in the Red Signal Light status in conjunction with the annual valuation report and the projection report, the actuary will determine and recommend to the Board an employer contribution rate increase to consider that is sufficient enough to get all three metrics back into the Green Signal Light status. The employer contribution rate increase would be effective beginning July 1<sup>st</sup>, 18 months following the completion of the projection report (e.g., if the projection report in 2024 deems an increase to be considered, then it would be effective for July 1, 2026).

The following metrics will be measured:

- **Funded Ratio** – Funded Ratio is defined as the actuarial value of assets divided by the actuarial accrued liability. One of the funding goals is to have an increasing funded ratio over the projection period with an ultimate goal of having a 100 percent funded ratio. The Board sets the Signal Light definition as follows:

Status	Definition
Green	Funded Ratio above 90% in 2047
Yellow	Funded Ratio between 70% and 90% in 2047
Red	Funded Ratio below 70% in 2047

- **Cash flow as a percentage of assets** – Cash flow as a percentage of assets is defined as the difference between total contributions coming into the trust and the benefit payments made to retirees and beneficiaries going out of the trust as a percentage of beginning year market value of assets. Over the projection period, this percentage will fluctuate from year to year so for Signal Light testing, the net cash flow percentage over the entire projection period will be tested. The Board sets the Signal Light definition as follows:

Status	Definition
Green	Net Cash Flow Percentage above negative 5.25% (-5.25%) during the projection period
Yellow	Net Cash Flow Percentage between negative 5.25% (-5.25%) and negative 7.00% (-7.00%) during the projection period
Red	Net Cash Flow Percentage below negative 7.00% (-7.00%) during the projection period

- **Actuarially Determined Contribution (ADC)** – ADC is defined as the contribution requirement determined by the actuary using a contribution allocation procedure based on the principal elements disclosed in Section III of this funding policy:
  1. Actuarial Cost Method
  2. Asset Smoothing Method
  3. Amortization Method

The calculation of the ADC will be determined during the actuarial valuation and not during the projection report. The ratio of the ADC to the fixed contribution rate (ADC/FCR) as set by this Funding Policy will be tested. The Board sets the Signal Light definition as follows:

Status	Definition
Green	ADC ratio at or below 100% of fixed contribution rate at valuation date
Yellow	ADC ratio between 100% and 110% of fixed contribution rate at valuation date
Red	ADC ratio above 110% of fixed contribution rate at valuation date

If all of the metrics are in the Green Signal Light status in conjunction with the annual valuation report and the projection report and the following additional criteria is met for two consecutive valuation and projection cycles, the actuary may recommend to the Board an employer contribution rate decrease to consider. The additional criteria is based on the actuary's long-term investment return assumption recommended by the actuary in the most recent experience study and is as follows:

- Funded Ratio in 2047 is above 110%,
- Cash Flow as a percentage of assets is above negative 3.5% during the projection period, and
- ADC Ratio is below 90% for all years of the projection period.

### III. Assumptions and Methods

Each year, the actuary will perform an actuarial valuation and projection report for funding purposes. During the process, the actuary shall calculate all the metrics listed in Section II of this funding policy and SLRP's Signal Light status for each metric. The following three major components of a funding valuation will be used:

- **Actuarial Cost Method** – This component determines the attribution method upon which the cost/liability of the retirement benefits are allocated to a given period, defining the normal cost or annual accrual rate associated with projected benefits. The Entry Age Normal Cost Method (EAN) is to be used for determination of the normal cost rate and the actuarial accrued liability for purposes of calculating the Actuarial Determined Contribution (ADC).
- **Asset Valuation Method** – This component dictates the method by which the asset value, used in the determination of the Unfunded Actuarial Accrued Liability (UAAL) and Funded Ratio, is determined. The asset valuation method to be used shall be a five-year smoothed market value of assets. The difference between the actual market value investment returns and the expected market investment returns is recognized equally over a five-year period.

- **Amortization Method** – This component prescribes, in terms of duration and pattern, the systematic manner in which the difference between the accrued liability and the actuarial value of assets is reduced. For purposes of calculating the ADC metric, the following amortization method assumptions are used:
  - I. Once established for any component of the UAAL, the amortization period for that component will be closed and will decrease by one year annually.
  - II. The amortization payment will be determined on a level percentage of pay basis.
  - III. The length of the amortization periods will be as follows:
    - a. Existing UAAL on June 30, 2023 – 25 years.
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  - IV. If any future annual actuarial valuation indicates that SLRP has a negative UAAL, the ADC shall be set equal to the Normal Cost.
  
- **Actuarial Assumptions** – The actuarial assumptions are used to develop the annual and projected actuarial metrics, as well as the ADC rates. The actuarial assumptions are derived and proposed by the actuary and adopted by the PERS' Board in conformity with the *Actuarial Standards of Practice*. The actuarial assumptions for this funding policy were developed using the experience for the four-year period ending June 30, 2022 (State of Mississippi Retirement Systems Experience Investigation for the Four-Year Period Ending June 30, 2022). The long-term investment return assumption adopted by the PERS' Board in conjunction with the experience investigation is 7.00 percent.

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- **Projection Report (performed annually)** – The Board is responsible for the review of SLRP's 30-year projection report, which will include the actuarial metrics and Signal Light status for each metric over a 30-year period.
- **Experience Analysis (performed every two years on a rolling four-year)** – The Board is responsible for ensuring that an experience analysis is performed as prescribed, review of the results of the study, and approving the actuarial assumptions and methodologies to be used for all actuarial purposes relating to the defined benefit pension plan.
- **Actuarial Audit (performed at least every five years)** – The Board is responsible for the review of an audit report performed by a new actuarial firm to provide a critique of the reasonableness of the actuarial methods and assumptions in use and the resulting actuarially computed liabilities and contribution rates.
- **Funding Policy Review (performed at least annually)** – The Board is responsible for the periodic review of this policy, but at least annually following the Projection Report and biennially following the Experience Analysis.

## V. Glossary of Funding Policy Terms

- **Actuarial Accrued Liability (AAL):** The AAL is the value at a particular point in time of all past normal costs. This is the amount of assets the plan would have today if the current plan provisions, actuarial assumptions, and participant data had always been in effect, contributions equal to the normal cost had been made, and all actuarial assumptions had been met.
- **Actuarial Cost Method:** The actuarial cost method allocates a portion of the total cost (present value of benefits) to each year of service, both past service and future service.
- **Actuarial Determined Contribution (ADC):** The potential payment to the plan as determined by the actuary using a contribution allocation procedure that, if contributed consistently and combined with investment earnings, would be sufficient to pay promised benefits in full over the long term. The ADC may or may not be the amount actually paid by the plan sponsor or other contributing entity.
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  - **Market Value of Assets (MVA):** The MVA is the fair value of assets of the plan as reported in the plan's audited financial statements.
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- **Surplus:** A surplus refers to the positive difference, if any, between the AVA and the AAL.
- **Unfunded Actuarial Accrued Liability (UAAL):** The UAAL is the portion of the AAL that is not currently covered by the AVA. It is the positive difference between the AAL and the AVA.
- **Valuation Date:** The valuation date is the annual date upon which an actuarial valuation is performed; meaning that the trust assets and liabilities of the plan are valued as of that date. SLRP's annual valuation date is June 30.

## **PERS Board Special Election Schedule – State Employee Representative**

### **Vacancy May 1, 2024**

#### **Term Ends June 30, 2026**

May 7, 2024	Notice mailed to agencies soliciting potential candidates
June 7, 2024	Deadline for receipt of petitions
June 26, 2024	Board approval of ballot at regularly scheduled meeting
July 17, 2024	Deadline to mail ballots
Aug 21, 2024	Deadline for receipt of ballots/votes
Aug 28, 2024	Board approval of election results at regularly scheduled meeting

### **Runoff (if necessary)**

Sept 11, 2024	Ballots mailed
Oct 16, 2024	Deadline for receipts of ballots/votes
Oct 23, 2024	Board approval of election results at regularly scheduled meeting

# 2024 PERS Board Election Schedule (State)

## **PERS Board Election Schedule – State Employee Representative**

### **Term ends 12/31/24**

July 2, 2024	Notice mailed to agencies soliciting potential candidates
Aug 6, 2024	Deadline for receipt of petitions
Aug 28, 2024	Board approval of ballot at regularly scheduled meeting
Sept 11, 2024	Deadline to mail ballots
Oct 16, 2024	Deadline for receipt of ballots/votes
Oct 23, 2024	Board approval of election results at regularly scheduled meeting

### **Runoff (if necessary)**

Nov 06, 2024	Ballots mailed
Dec 11, 2024	Deadline for receipts of ballots/votes
Dec 18, 2024	Board approval of election results at regularly scheduled meeting



# **Public Employees' Retirement System**

## **Board of Trustees**

**April 24, 2024**

### **Proposed Amendments to Optional Retirement Plan Plan Document**

Staff requests the Board's final approval of the proposed amendments to the following section:

Amend Section 4.1 *Plan Contributions* to update the employer contribution rate from 17.40% to 19.40% as approved by the Board. In accordance with Miss. Code Ann. § 25-11-411, ORP employers shall contribute the same amount the employer would be required to contribute to PERS if the participant were a member.

The effective date of the proposed amendments will be July 1, 2024.

## ARTICLE IV PLAN CONTRIBUTIONS

### 4.1 Plan Contributions

The Institution will make Institution Plan Contributions monthly during years of participation in accordance with the schedule set forth below except as the same may hereafter be changed by statute, regulation, or termination of the Plan. Pursuant to Miss. Code Ann. § 25-11-415, (1972, as amended) the Board of Trustees is authorized to deduct a fee of up to two percent (2.00%) of the employers' contribution to defray the cost of administering the plan. Effective July 1, 2009, the Board has set the fee at one percent (1.00%) of the employers' total contribution which shall be transferred each month to PERS when contributions are due.

The Participant's contribution of 9.00% of compensation, which is picked-up by the Institution, shall be credited to the Participant's account. The Institution shall contribute ~~14.90%~~ 16.90% of the Participant's compensation, reduced by the administrative fee noted in this section, to be credited to the Participant's account. In addition, the Institution shall contribute 2.50% of the Participant's compensation, reduced by the administrative fee noted in this section, to PERS for application to the accrued liability contribution fund.

#### Employer and Employee Plan Contributions as a Percentage of Compensation

By the <u>Participant</u>	By the <u>Institution</u>	<u>Total</u>
9.00%	<del>17.40%</del> <u>19.40%</u>	<del>26.40%</del> <u>28.40%</u>

#### Allocation of ~~17.40%~~ 19.40% Employer Contribution

<u>Administrative Fee</u>	<u>% to PERS UAAL</u>	<u>% to Participant's Account</u>
<del>0.174%</del> <u>0.194%</u> of Compensation (1.00% of <del>17.40%</del> <u>19.40%</u> of compensation)	<b>2.475% of Compensation</b> (2.50% less pro-rata share of administrative fee)	<del>14.751%</del> <u>16.731%</u> of Compensation ( <del>14.90%</del> <u>16.9%</u> less pro-rata share of administrative fee)

#### Plan Contributions as

#### Credited to Participant's Account

By the <u>Participant</u>	By the <u>Institution</u>	<u>Total</u>
9.00%	<del>14.751%</del> <u>16.731%</u>	<del>23.751%</del> <u>25.731%</u>

In no event will compensation taken into account under the Plan exceed the limit of Code Section 401(a)(17) as such amount may be adjusted by the Secretary of Treasury from time to time.

**To:** Investment Committee

**Date:** April 23, 2024

**Re:** International Small Cap Search

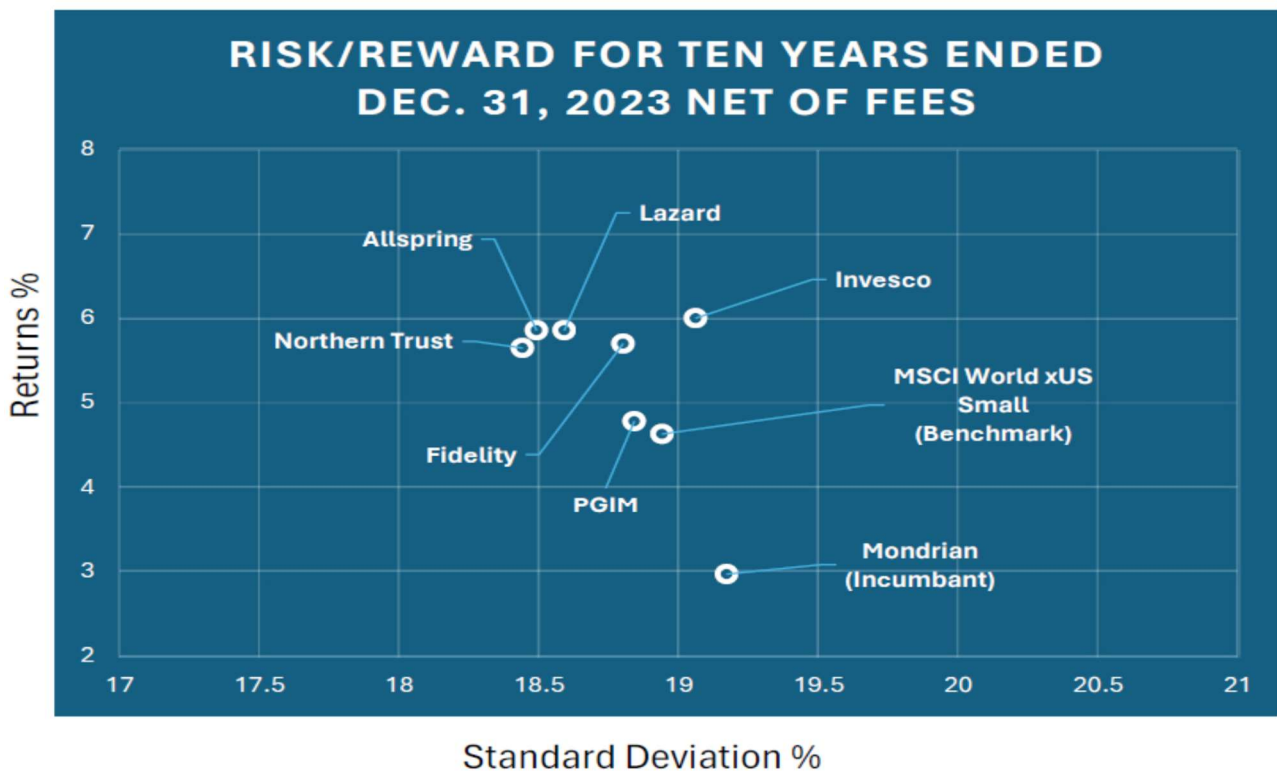
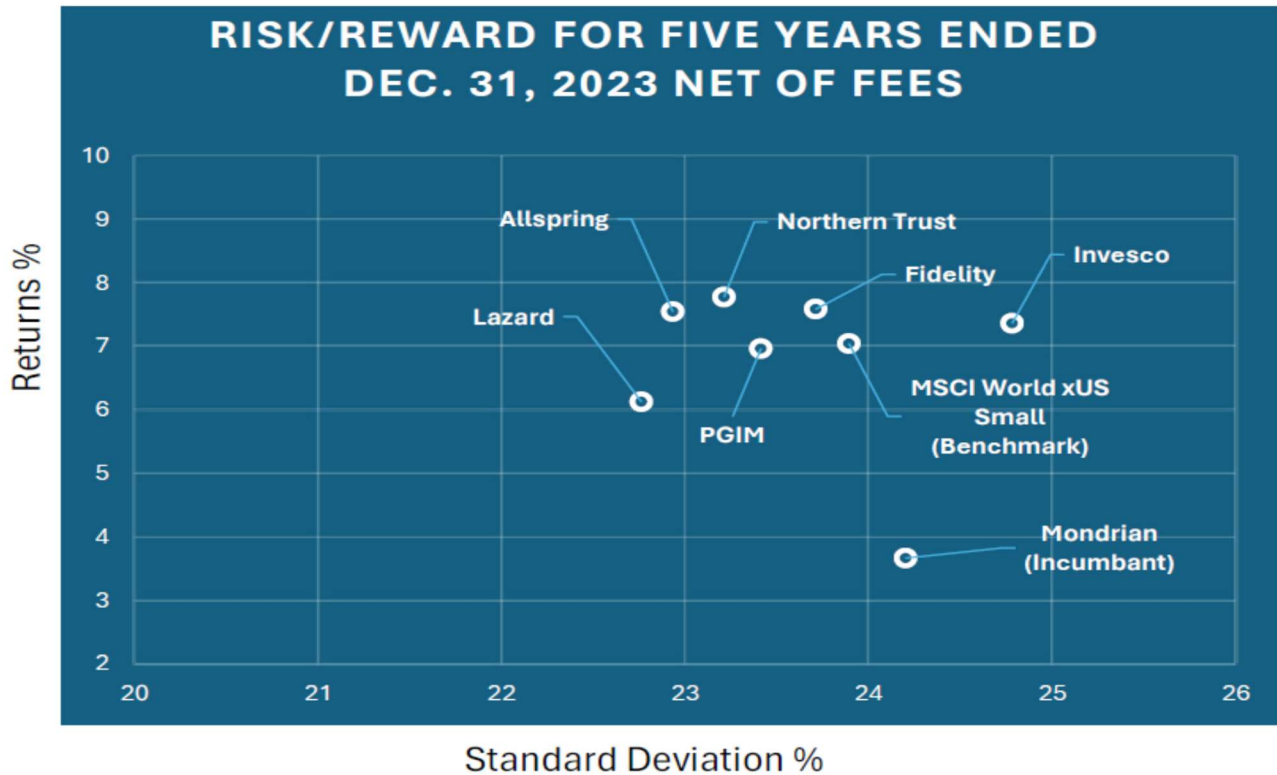
The Investments Department is always looking for ways to improve investment performance at the most competitive fees. I am pleased to announce that this has been accomplished during our process of searching for a replacement for Mondrian Investment Partners (Mondrian) in the International Small Cap Equity sleeve of the portfolio. Northern Trust Asset Management's (NTAM) quantitative strategies have demonstrated an ability to effectively attain relative excess returns through the application of their multi-factor quantitative models at an extremely attractive price. Through NTAM's focus on efficiency in managing its costs and with an existing relationship discount they have offered their strategy for 11 basis points (based on a portfolio value of \$300 million). To give some context, if this strategy were to be implemented, it would save nearly \$2 million, a year, in management fees.

Ultimately, as fiduciaries we must balance our need for portfolios that produce attractive risk-adjusted excess returns and low management fees; Northern Trust's quantitative strategies have given PERS an incredibly appealing solution that is highly efficient, at 11 basis points, without sacrificing quality.

It is my recommendation as Chief Investment Officer that the contract for International Small Cap Equities to replace Mondrian be awarded to Northern Trust.

I have included on the following pages:

- Charts depicting the 5- and 10- year risk/reward charts for all the firms interviewed, the incumbent, and the benchmark net of fees.
- A list of advantages that quantitative investing can provide.



Quantitative investing is an investment strategy that relies on mathematical and statistical models to make investment decisions. It differs from other forms of active investing, such as fundamental analysis, which requires evaluating a company's financials, management, industry, and market conditions. Quantitative investing can provide several advantages (in certain markets) compared to traditional fundamental analysis.

- **Objective/Unbiased Approach:** Quantitative investing is data-driven, treating investing as a science, reducing the impact of emotional biases that can influence decision-making in traditional fundamental analysis.
- **Systematic and Repeatable:** Quantitative models are systematic and rules-based, allowing for consistent application across different securities and markets. This reduces the reliance on individual judgment and increases replicability. This is even more advantageous where traditional manager "Skill" is difficult to find.
- **Back-Testing:** Quantitative strategies can be tested on historical data to evaluate their past performance. This enables refinement and optimization before actual capital is utilized.
- **Scalability/Portability:** Quantitative strategies can be applied to a large number of securities simultaneously, making them suitable for managing portfolios with diverse holdings, across different asset classes and markets. This is especially valuable in markets like Small Cap International; a market that contains almost 2,400 companies representing approximately 14% of the market capitalization in each country represented in the index.
- **Velocity:** Advancements in technology enable quantitative models to process large amounts of data rapidly. This allows for the identification and exploitation of short-term market inefficiencies or arbitrage opportunities.
- **Risk Management:** Quantitative models often integrate risk management tools to limit exposure to specific risks or perfunctorily rebalance portfolios based on changing market environments.
- **Reduction of Behavioral Biases:** Quantitative models are designed to minimize behavioral biases, such as overconfidence and anchoring, which can often affect traditional investment strategies.
- **Multifactor Models:** Quantitative strategies can incorporate multiple factors and variables, such as value, momentum, quality, and size, to enhance performance.
- **Statistical Analysis:** Quantitative models employ rigorous statistical techniques to assess the significance of relationships between variables, leading to more data-driven decision-making.
- **Reliability:** Quantitative models apply the same criteria and rules consistently over time, resulting in more stable investment decisions.
- **Broad Coverage:** Quantitative models can scan and analyze a wide range of information sources, including financial statements, news, social media sentiment, and macroeconomic data, to inform investment decisions.
- **Automation:** Numerous properties of quantitative investing can be systematized, reducing the need for constant individual oversight, thus lowering operational costs.

April 23, 2024



## **Public Employees' Retirement System of Mississippi**

Investment Manager Search  
International Small Cap Developed

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**John Jackson, CFA**  
Fund Sponsor Consulting

**Alexander Ford**  
Fund Sponsor Consulting

Important Disclosures regarding the use of this document are included at the end of this document. These disclosures are an integral part of this document and should be considered by the user.

# Non-U.S. Equity Developed Small Core Manager Evaluation

## Manager candidates

	Investment Manager	Strategy
<i>The following investment manager organizations have submitted information to Callan regarding their investment management capabilities. The information has been summarized in this report for the consideration of Mississippi Public Employees' Retirement System.</i>	Allspring Global Investments, LLC	Special International Small Company Equity
	Fidelity Institutional Asset Management	FIAM Select International Small Cap
	Invesco	Invesco International Small Cap Dynamic Multifactor Equity
	Lazard Asset Management	EAFE Small Cap Equity Advantage
	Northern Trust Asset Management	NT Quality Small Cap Core International Strategy
	PGIM Quantitative Solutions LLC	PGIM Quantitative Solutions International Small Cap Equity

# Non-U.S. Equity Developed Small Core Manager Evaluation

## Candidate firm summary

	Allspring Global Investments, LLC	Fidelity Institutional Asset Management	Invesco	Lazard Asset Management	Northern Trust Asset Management	PGIM Quantitative Solutions LLC
Headquarters	Charlotte, NC	Smithfield, RI	Atlanta, GA	New York, NY	Chicago, IL	Newark, NJ
Ownership / Parent	Other / N/A	Other / Fidelity Investments	Publicly Owned / Invesco Ltd.	Publicly Owned / Lazard Freres & Co. LLC (LF&Co.)	Publicly Owned / The Northern Trust Corporation	Subsidiary / PGIM, Inc.
Total Firm Assets (\$mm)	432,939	386,331	1,585,344	206,957	1,180,585	94,803
Have any open regulatory exams/investigations been escalated to enforcement?	No	No	No	No	No	No
Date of Last SEC Exam	03/20/2018	09/01/2018	07/25/2022	11/01/2019	03/31/2018	03/01/2017
GIPS Compliant	Yes	Yes	Yes	Yes	Yes	Yes
E&O Insurance	Yes	Yes	Yes	Yes	Yes	Yes
Disaster Recovery Plan in Place	Yes	Yes	Yes	Yes	Yes	Yes



# Non-U.S. Equity Developed Small Core Manager Evaluation

## Candidate product summary

	Allspring Global Investments, LLC	Fidelity Institutional Asset Management	Invesco	Lazard Asset Management	Northern Trust Asset Management	PGIM Quantitative Solutions LLC
Product Name	Special International Small Company Equity	FIAM Select International Small Cap	Invesco International Small Cap Dynamic Multifactor Equity	EAFE Small Cap Equity Advantage	NT Quality Small Cap Core International Strategy	PGIM Quantitative Solutions International Small Cap Equity
Product Benchmark	MSCI:World xUS Small	S&P:Dev xUS Small GD	MSCI:World xUS Small	MSCI:EAFE Small	MSCI:World xUS Small	MSCI:EAFE Small
Proposed Vehicle	Sep Acc	Sep Acc	Sep Acc	Sep Acc	Sep Acc	Sep Acc
Product / Vehicle Inception	2012 / 2012	1995 / 1995	2003 / 2003	2008 / 2008	2014 / 2014	2011 / 2011
Total Product Assets (\$mm)	781	2,904	-	339	-	19
Total Vehicle Assets (\$mm)	553	1,231	-	167	-	19
Number of Holdings	70	197	1,210	431	1,458	295
Annual Turnover	16%	24%	394%	84%	15%	116%
Emerging Market Exposure*	0% (97th)	6% (52nd)	12% (29th)	0% (76th)	0% (80th)	0% (97th)
Combined Z-Score*	0.03 (57th)	0.05 (56th)	-0.62 (88th)	-0.25 (74th)	-0.01 (64th)	-0.05 (65th)
Weighted Median Market Cap*	2.60 (42nd)	2.03 (60th)	0.94 (99th)	1.45 (92nd)	2.45 (53rd)	2.30 (57th)

Note: MSCI World ex-USA Small Cap Index contains 2,384 securities (as of February 29, 2024).

\*Results reflect ranking vs. Callan International Small Cap in parenthesis

# Manager Summary Matrix

## Allspring Global Investments

	Organization/Team	Strategy/Portfolio	Summary Opinion
Allspring Global Investments, LLC	<ul style="list-style-type: none"> <li>- In November 2021, Allspring, previously Wells Fargo Asset Management, a subsidiary of Wells Fargo Bank, was acquired by private equity firms GTCR LLC and Reverence Capital Partners, L.P. Employees own approximately 20% of the firm's equity.</li> <li>- Joe Sullivan, the former head of Legg Mason, was named the chief executive and chair of Allspring. Sullivan replaced Nico Marais, WFAM's CEO since June 2019, remains as a senior adviser.</li> <li>- Strategy co-managed by Jim Tringas and Bryant VanCronkhite.</li> <li>- Tringas and VanCronkhite are supported by two co-portfolio managers and 10 analysts.</li> </ul>	<ul style="list-style-type: none"> <li>- Employs a bottom-up, fundamental process to construct the strategy.</li> <li>- Seeks to take advantage of market inefficiencies regarding underappreciated companies with a durable asset base, flexible balance sheet, and strong free cash flow.</li> <li>- Portfolio holds 50-80 names with expected annual turnover of 10%-50%.</li> <li>- Core quality strategy.</li> </ul>	<ul style="list-style-type: none"> <li>- The stability that the firm and its teams have demonstrated throughout this ownership transition has resulted in fewer uncertainties under the new parent organization.</li> <li>- Deep and seasoned team with CPA pedigree.</li> <li>- Differentiated balance sheet optimization approach to value companies and identify asymmetric opportunities.</li> <li>- Strategy veers toward quality and exhibits beta of 0.8-0.9.</li> <li>- Client concentration is notable.</li> <li>- Viable for a standalone or multi-manager structure given the core/quality portfolio characteristics and risk/return profile.</li> </ul>
Special International Small Company Equity			

# Manager Summary Matrix

## Fidelity Institutional Asset Management (FIAM)

	Organization/Team	Strategy/Portfolio	Summary Opinion
<b>Fidelity Institutional Asset Management</b>	<ul style="list-style-type: none"> <li>- Wholly-owned subsidiary of FMR LLC, also known as Fidelity Investments, launched in 2005.</li> <li>- Fidelity Investments was founded by Edward Johnson II in 1946.</li> <li>- Privately held, headquartered in Boston, and controlled by the Johnson family with 49% ownership, and the remaining 51% is owned by employees.</li> <li>- Shah Badkoubei replaced Robert Feldman as lead portfolio manager in 2018 due to health reasons.</li> <li>- Subu Balakrishnan was appointed as assistant portfolio manager in January 2023.</li> <li>- Badkoubei and Balakrishnan are supported by eight dedicated analysts.</li> <li>- Team leverages the broader Fidelity research platform consisting of over 150 analysts.</li> </ul>	<ul style="list-style-type: none"> <li>- Combines qualitative stock selection (based on analyst ratings) with quantitative risk management (optimization model).</li> <li>- Seeks to identify high quality companies (e.g., strong management, positive earnings surprises) exhibiting growth (e.g., improving sales growth, profitability) and attractive valuations.</li> <li>- Portfolio constrained to +/-3% country and sector, and +/-2% security, versus the index.</li> <li>- Strategy consists of 190-210 names with expected annual turnover of 20%-50%.</li> <li>- Diversified, core portfolio with a modest growth tilt.</li> </ul>	<ul style="list-style-type: none"> <li>- Stable organization enabled by the ownership structure.</li> <li>- Strategy is well-resourced.</li> <li>- Performance driven by stock selection given the portfolio and risk management.</li> <li>- Viable for a standalone and multi-manager structure given the diversified, core/growth portfolio characteristics and risk/return profile.</li> </ul>
FIAM Select International Small Cap			

# Manager Summary Matrix

## Invesco

	Organization/Team	Strategy/Portfolio	Summary Opinion
<b>Invesco</b>	<ul style="list-style-type: none"> <li>- Wholly owned subsidiary of Invesco Ltd. (NYSE: IVZ); employees and employee trust own approximately 10%.</li> </ul>	<ul style="list-style-type: none"> <li>- Designed to provide exposure to the FTSE Dynamic Multifactor Index, which was co-developed by Longis and Haghbin using FTSE Russell's factor definitions and index methodology.</li> </ul>	<ul style="list-style-type: none"> <li>- There are no immediate concerns regarding the retirement of CEO Marty Flanagan and the subsequent succession of Andrew Schlossberg as CEO. This transition is not expected to materially impact the firms' underlying investment strategies.</li> </ul>
Invesco International Small Cap Dynamic Multifactor Equity	<ul style="list-style-type: none"> <li>- In June 2023, Andrew Schlossberg succeeded Marty Flanagan as President and CEO of Invesco. He also became a member of the Invesco Ltd. Board of Directors on June 30, 2023. Flanagan will serve as Chairman Emeritus until December 31, 2024.</li> <li>- The Invesco Solutions team is led by Alessio de Longis, Head of Investments, and Mo Haghbin, Head of Solutions.</li> </ul>	<ul style="list-style-type: none"> <li>- The FTSE Dynamic Multifactor Index aims to identify macro regimes and tactically allocated to risk premia based on the macro regime analysis.</li> <li>- Macro regimes are assessed using leading economic indicators and country-level total return indexes across equity, credit and fixed income markets for both developed and emerging markets.</li> <li>- The factors that are allocated to within various macro regimes include size, value, momentum, low volatility, and quality.</li> <li>- The index provides a diversified portfolio of approximately 200-1200 holdings with annual turnover of 200% - 300%.</li> <li>- Intended to be a core strategy.</li> </ul>	<ul style="list-style-type: none"> <li>- Rules-based investment process allows for transparency.</li> <li>- Efficacy of the macro regime model within the non-U.S. small cap universe is a point of uncertainty.</li> <li>- Unproven strategy that is not live. No live performance track record with only simulated results available to demonstrate the strategy's hypothetical performance profile is a consideration.</li> </ul>

# Manager Summary Matrix

## Lazard Asset Management

	Organization/Team	Strategy/Portfolio	Summary Opinion
<b>Lazard Asset Management</b>  EAFE Small Cap Equity Advantage	<ul style="list-style-type: none"> <li>- Lazard Asset Management ("LAM") was established in 1970 in New York City; firm roots date back to founding of Lazard Freres &amp; Co, a banking and financial services firm.</li> <li>- In 2005, LAM company went public on the New York Stock Exchange under the ticker symbol "LAZ".</li> <li>- Led by Paul Moghtader, the Advantage quant team joined Lazard in 2007-2008 from SSgA.</li> <li>- Team consists of nine portfolio managers, two client portfolio managers, and two analysts.</li> </ul>	<ul style="list-style-type: none"> <li>- Employs a bottom-up multi-factor model to construct the strategy.</li> <li>- Quant model consists of ~30% value, ~30% growth, ~30% market sentiment, and ~10% quality factors.</li> <li>- Quant research uniquely leverages 76 central fundamental analysts.</li> <li>- Portfolio typically holds 250-450 names with annual turnover of 100%-150%.</li> <li>- Diversified, risk-controlled core strategy with a slight value tilt.</li> </ul>	<ul style="list-style-type: none"> <li>- Stable organization.</li> <li>- Lazard Ltd. implemented a workforce reduction of 10% in 2023.</li> <li>- CFO Evan Russo replaced Ashish Bhutani as CEO of Lazard Asset Management, effective June 2022.</li> <li>- Stable and deep investment team.</li> <li>- Recent elevated analyst turnover results in a notable opinion, based more on caution of any further changes rather than any current impact to the strategy.</li> <li>- Tested process with a track record of model innovation.</li> <li>- Utilization of fundamental team to enhance alpha signals is unique relative to peers .</li> <li>- History of struggling during market inflection points relative to peers; potentially due to holistic portfolio construction.</li> <li>- Viable for a standalone or a multi-manager structure given the diversified core/value portfolio characteristics and risk/return profile.</li> </ul>

# Manager Summary Matrix

## Northern Trust Asset Management

	Organization/Team	Strategy/Portfolio	Summary Opinion
<b>Northern Trust Asset Management</b>	<ul style="list-style-type: none"> <li>- Founded in 1889 and based in Chicago, organized as international bank holding company and is publicly traded (ticker: NTRS).</li> </ul>	<ul style="list-style-type: none"> <li>- Employs a quantitative approach to construct a portfolio with focused exposure to the quality factor.</li> </ul>	<ul style="list-style-type: none"> <li>- Stable organization.</li> <li>- Experienced team.</li> </ul>
NT Quality Small Cap Core International Strategy	<ul style="list-style-type: none"> <li>- Head of Small Cap Portfolio Management Robert Bergson leads research and implementation of the small cap equity strategies and is supported by a team of 11 quantitative analysts.</li> </ul>	<ul style="list-style-type: none"> <li>- Multi-factor models divide the universe into value and growth segments by P/B and then rank each universe by quality using value-specific (e.g., quality of earnings, sources of financing, efficiency of company assets, etc.) and growth-specific (e.g., stability of earnings, ROA, sales growth rates, capex, etc.) quality metrics and eliminate lower quality stocks accounting for ~10% of the universe. A momentum filter is also used to remove low momentum stocks.</li> <li>- Portfolio constraints include region +/- 200 bps, sector +/- 100 bps, security +/- 50 bps relative to the benchmark.</li> <li>- Portfolio holdings expected to be in the 1500-2500 stock range with expected annual turnover of 15% - 20%.</li> <li>- Quality-tilted strategy with an overweight to microcaps.</li> </ul>	<ul style="list-style-type: none"> <li>- Limited live track record from 2014-2020. The live track record has been combined with simulated returns to demonstrate a hypothetical continuous performance track record.</li> <li>- Certain aspects of the International Small Cap Core strategy differ from the established U.S. small cap strategies due to differences between the universes and data reliability.</li> <li>- Fees are attractive relative to active strategies while slightly more expensive than passive multi-factor solutions.</li> <li>- Tends to underperform when lower quality stocks are leading the market.</li> <li>- Live track record excess return and tracking error was more muted than simulated time periods.</li> <li>- Lack of continuous live track record is a consideration.</li> </ul>



# Manager Summary Matrix

## PGIM Quantitative Solutions

	Organization/Team	Strategy/Portfolio	Summary Opinion
PGIM Quantitative Solutions LLC	<ul style="list-style-type: none"> <li>- Founded in 1975, PGIM Quantitative Solutions LLC (PGIM QS) is a limited liability company positioned as a business unit under the publicly traded company Prudential Financial (PGIM). PGIM QS operates as the PGIM quantitative subsidiary, offering a diverse set of quantitative strategies and vehicles.</li> <li>- Head of Quantitative Equity Stacie Mintz leads the team of ~15 quantitative PM/analysts.</li> </ul>	<ul style="list-style-type: none"> <li>- Employs a quantitative approach using both bottom-up and top-down models to construct a multi-factor strategy based on fundamental insights that systematically adapts to changing growth rates and market conditions.</li> <li>- Bottom-up stock selection generates 80% of expected alpha while top-down models account for 20%.</li> <li>- The team utilizes over 30 signals grouped into value, growth, and quality factors that are weighted for each stock based on the company's growth rates.</li> <li>- The top-down component evaluates industry and country metrics to tilt the portfolio towards attractive areas.</li> <li>- Portfolio typically holds 200-300 stocks with annual turnover of 80% - 120%.</li> <li>- Diversified, core strategy.</li> </ul>	<ul style="list-style-type: none"> <li>- Stable organization.</li> <li>- Team is stable and experienced.</li> <li>- Tested process with a live track record that provides consistent exposure to value, growth and quality factors.</li> <li>- Robust models, but may not be at the cutting edge of quantitative investing.</li> <li>- Strategy may struggle when any one factor is significantly out of favor.</li> <li>- Strategy assets have seen a significant decline since 2017 and have remained quite low since 2021.</li> <li>- Viable as a standalone or within a multi-manager structure given the diversified, core portfolio characteristics.</li> </ul>
PGIM Quantitative Solutions International Small Cap Equity			

# Non-U.S. Equity Developed Small Core Manager Evaluation

## Proposed vehicle information and fees

	Minimum Account Size (\$mm)	Proposed Fee (%)*	Comments
<b>Allspring</b> <i>Separate Account</i>	15	0.55	<ul style="list-style-type: none"> <li>Flat fee schedule of 0.55%</li> </ul>
<b>Fidelity</b> <i>Separate Account</i>	50	0.66	<ul style="list-style-type: none"> <li>Fee schedule: 0.70% on first \$100mm, 0.65% on next \$150mm, 0.60% on remaining balance</li> </ul>
<b>Invesco</b> <i>Separate Account</i>	250	0.28	<ul style="list-style-type: none"> <li>Fee schedule: 0.28% on first \$250mm, 0.25% on next \$750mm, and 0.22% on remaining balance</li> </ul>
<b>Lazard</b> <i>Separate Account</i>	25	0.35	<ul style="list-style-type: none"> <li>Fee schedule: 0.43% on first \$100mm, 0.33% on next \$100mm, and 0.29% on remaining balance</li> <li>Includes a 5% reduction in management fees for MSPERS existing investment in Lazard Emerging Market Equity</li> </ul>
<b>Northern Trust</b> <i>Separate Account</i>	25	0.11	<ul style="list-style-type: none"> <li>Fee schedule: 0.15% on first \$50mm, 0.13% on next \$50mm, and 0.10% on remaining balance</li> <li>Minimum fee of \$100,000</li> </ul>
<b>PGIM</b> <i>Separate Account</i>	50	0.19	<ul style="list-style-type: none"> <li>Flat fee schedule of 0.19%</li> </ul>

Note: proposed fees reflect “best and final offers” from the investment manager candidates.

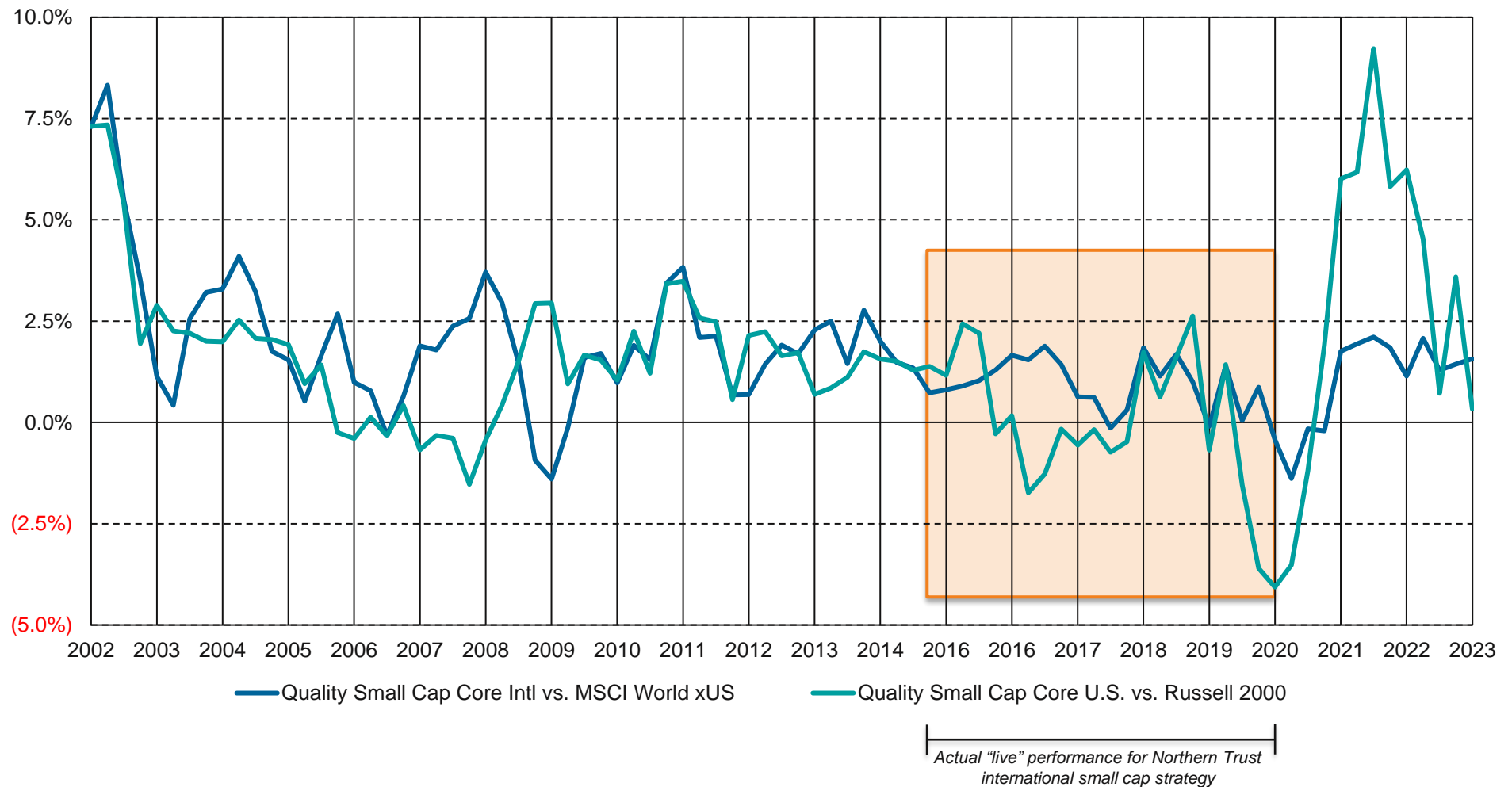
\*Proposed fee is based on a \$300 million mandate size.



# Northern Trust Quality Small Cap Core

Excess return – U.S. small cap and international developed small cap strategies

Rolling 4 Quarter Relative Returns  
Since December 31, 2002

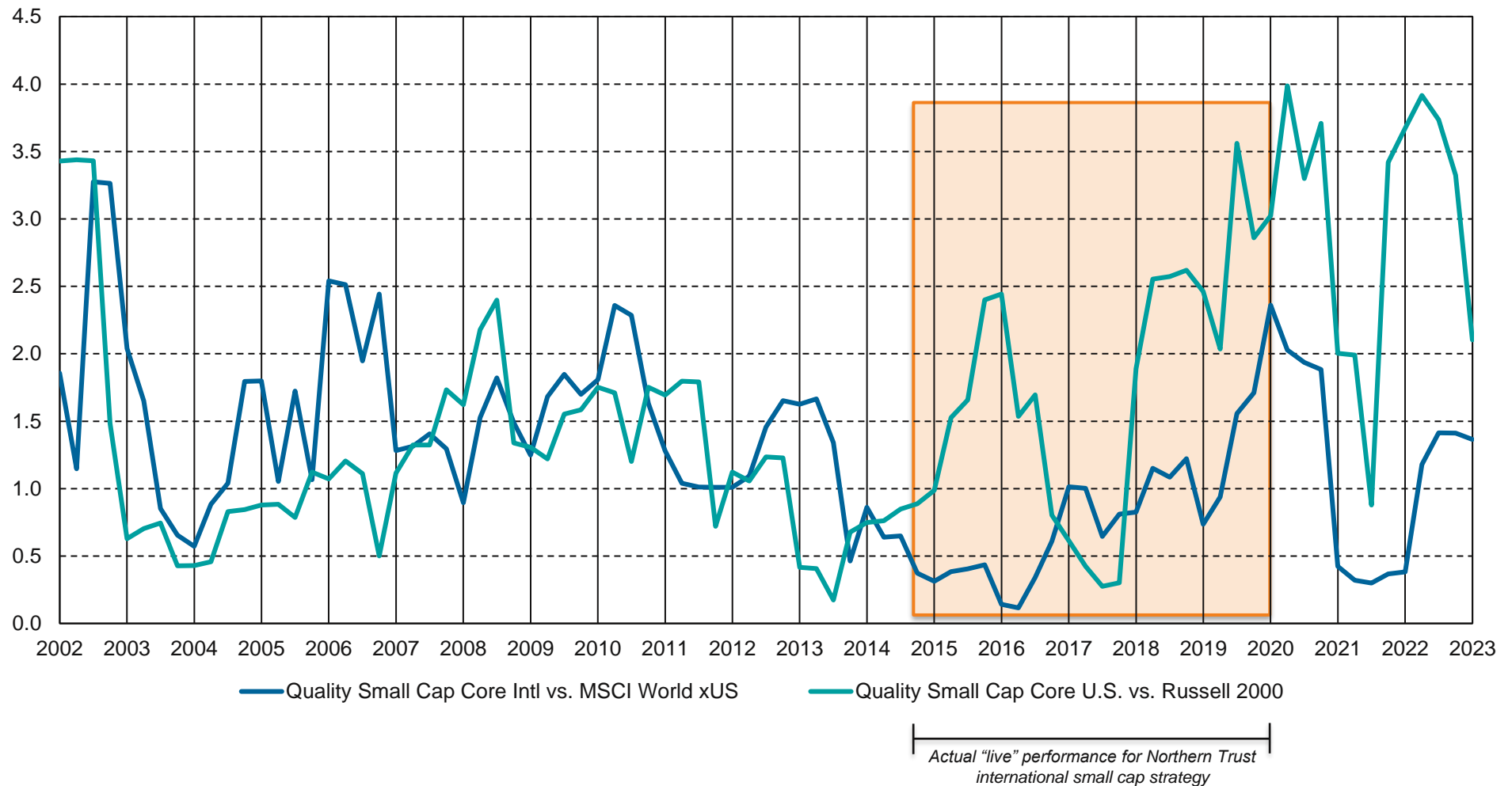


Note: Northern Trust Quality Small Cap Core International strategy performance reflects simulated returns from 1/1/2002 to 10/31/2014, live returns from 11/1/2014 to 12/31/2020, and simulated returns from 1/1/2021-12/31/2023.

# Northern Trust Quality Small Cap Core

Tracking error – U.S. small cap and international developed small cap strategies

Rolling 4 Quarter Tracking Error  
Since December 31, 2002



Note: Northern Trust Quality Small Cap Core International strategy performance reflects simulated returns from 1/1/2002 to 10/31/2014, live returns from 11/1/2014 to 12/31/2020, and simulated returns from 1/1/2021-12/31/2023.

# Non-U.S. Equity Developed Small Core Manager Evaluation

## Returns and peer group rankings

### Returns for Periods Ended December 31, 2023

Group: Callan Intl Small Cap (Percentile Rankings in Parentheses)

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 7 Years	Last 10 Years
Allspring	11.12 (34)	13.37 (87)	2.16 (32)	8.05 (40)	8.10 (24)	6.41 (28)
Fidelity	11.90 (12)	16.68 (27)	1.76 (33)	9.78 (18)	8.25 (21)	6.36 (27)
Invesco**	11.94 (12)	18.66 (18)	3.17 (27)	8.52 (38)	7.64 (35)	6.30 (31)
Lazard	10.94 (46)	15.52 (45)	4.61 (21)	7.79 (49)	6.48 (64)	6.21 (33)
Northern Trust ***	10.73 (55)	14.39 (58)	1.29 (38)	7.89 (42)	7.03 (39)	5.76 (42)
PGIM	11.00 (39)	13.12 (68)	2.47 (31)	7.16 (57)	5.69 (77)	4.97 (73)
Mondrian (Incumbent)	10.74 (55)	7.10 (94)	(4.03) (78)	4.34 (97)	5.13 (85)	3.59 (97)
Principal (Incumbent)	9.84 (76)	14.51 (55)	0.07 (48)	6.24 (79)	5.93 (70)	5.25 (61)
Callan Intl Small Cap*	10.88	15.06	(0.01)	7.77	6.84	5.56
MSCI:World xUS Small	10.60 (57)	12.62 (70)	(0.20) (57)	7.05 (59)	6.06 (66)	4.63 (86)

Note: Manager candidate performance is shown gross-of-fees unless otherwise noted.

\*Results reflect peer group median performance.

\*\* Invesco's historical performance reflects simulated returns.

\*\*\* Northern Trust Quality Small Cap Core International strategy performance reflects simulated returns from 1/1/2014 to 10/31/2014, live returns from 11/1/2014 to 12/31/2020, and simulated returns from 1/1/2021-12/31/2023.

# Non-U.S. Equity Developed Small Core Manager Evaluation

Calendar year – returns and peer group rankings

## Returns for Periods Ended December 31, 2023

Group: Callan Intl Small Cap (Percentile Rankings in Parentheses)

	2023	2022	2021	2020	2019	2018	2017	2016	2015	2014
Allspring	13.37 (67)	(20.67) (50)	18.54 (11)	11.99 (46)	23.36 (64)	(11.31) (3)	32.07 (81)	8.38 (8)	6.50 (76)	(6.54) (77)
Fidelity	16.68 (27)	(19.82) (42)	12.64 (54)	20.66 (20)	25.37 (45)	(17.00) (17)	31.66 (83)	0.58 (43)	10.50 (47)	(4.30) (82)
Invesco	18.66 (18)	(21.67) (56)	18.16 (11)	9.68 (61)	24.97 (51)	(15.50) (10)	31.64 (85)	3.38 (25)	7.02 (72)	(0.60) (12)
Lazard	15.52 (45)	(16.71) (26)	18.99 (10)	2.64 (85)	23.85 (62)	(21.10) (60)	35.17 (52)	(1.35) (65)	18.13 (5)	0.98 (6)
Northern Trust	14.39 (58)	(19.68) (39)	13.09 (48)	12.30 (46)	25.29 (46)	(16.56) (15)	31.86 (82)	6.04 (18)	6.31 (77)	(3.45) (54)
PGIM	13.12 (68)	(18.54) (36)	16.77 (13)	6.32 (80)	23.52 (63)	(22.79) (83)	35.05 (55)	(0.81) (59)	11.09 (40)	0.02 (8)
Mondrian (Incumbent)	7.10 (94)	(21.52) (53)	5.17 (90)	11.08 (51)	25.94 (36)	(13.90) (5)	33.31 (70)	0.98 (37)	3.58 (89)	(4.19) (80)
Principal (Incumbent)	14.51 (55)	(20.63) (47)	10.24 (72)	5.37 (83)	28.19 (24)	(19.66) (50)	37.68 (38)	2.46 (28)	9.91 (55)	(1.02) (18)
Callan Intl Small Cap*	15.06	(20.63)	12.78	11.29	24.99	(19.66)	35.26	(0.03)	10.09	(3.26)
MSCI:World xUS Small	12.62 (70)	(20.59) (46)	11.14 (66)	12.78 (45)	25.41 (45)	(18.07) (32)	31.04 (86)	4.32 (23)	5.46 (81)	(5.35) (68)

Note: Manager candidate performance is shown gross-of-fees unless otherwise noted.

\*Results reflect peer group median performance.

Invesco's historical performance reflects simulated returns.

Northern Trust Quality Small Cap Core International strategy performance reflects simulated returns from 1/1/2014 to 10/31/2014, live returns from 11/1/2014 to 12/31/2020, and simulated returns from 1/1/2021-12/31/2023.

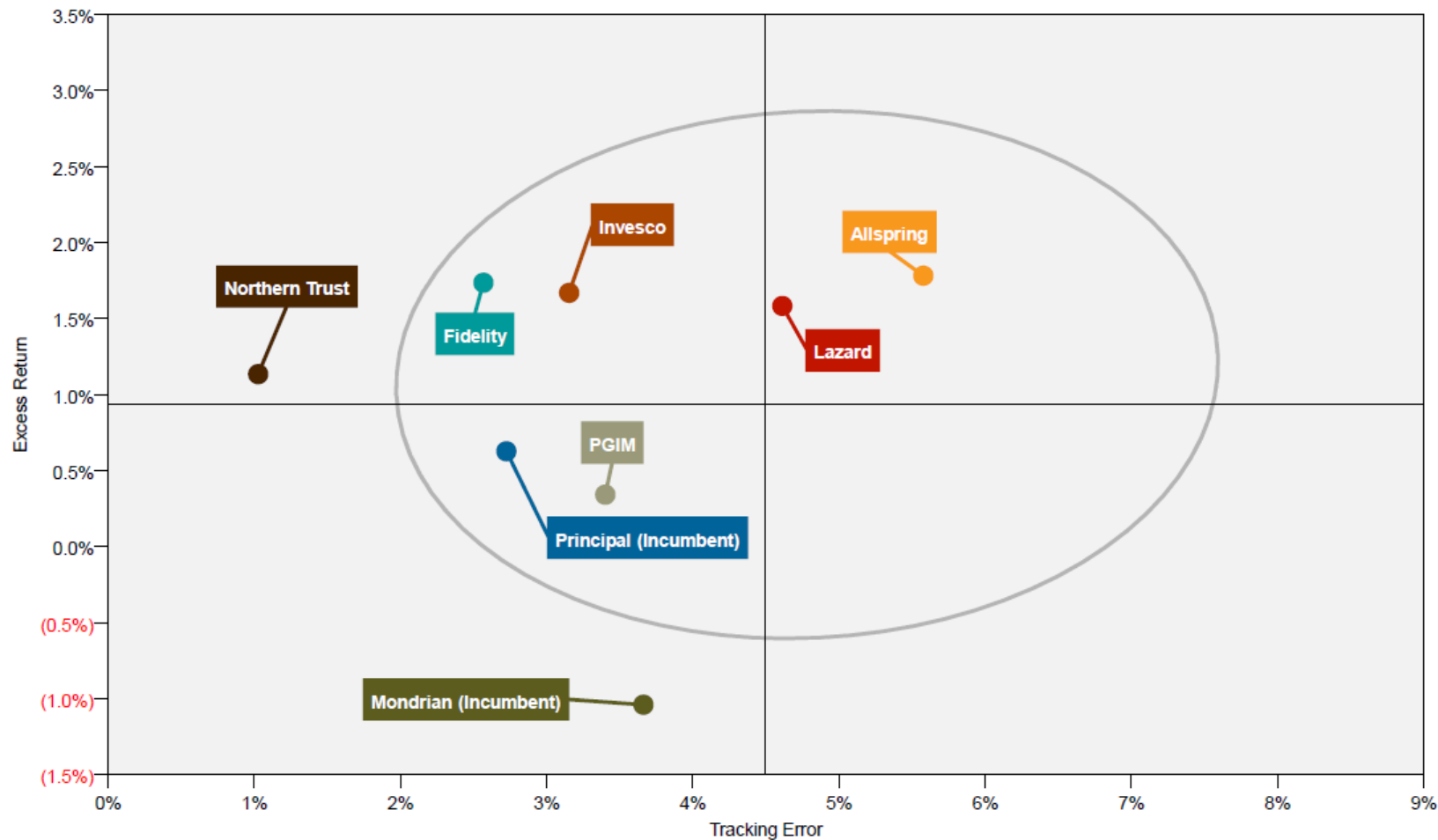
# Non-U.S. Equity Developed Small Core Manager Evaluation

## Excess return versus tracking error

Excess Return vs Tracking Error for Ten Years Ended December 31, 2023

Benchmark: MSCI World xUS Small (Net)

Group: Callan Intl Small Cap (Ellipse with Median at Central Axis)



Note: Manager candidate performance is shown gross-of-fees unless otherwise noted.

Invesco's historical performance reflects simulated returns.

Northern Trust Quality Small Cap Core International strategy performance reflects simulated returns from 1/1/2014 to 10/31/2014, live returns from 11/1/2014 to 12/31/2020, and simulated returns from 1/1/2021-12/31/2023.

# Non-U.S. Equity Developed Small Core Manager Evaluation

## 10-Year risk statistics

**Return-Based Risk Statistics Relative to MSCI:World xUS Small for Ten Years Ended December 31, 2023**  
**Group: Callan Intl Small Cap (Percentile Rankings in Parentheses)**

	Standard Deviation	Downside Risk	Sharpe Ratio	Information Ratio	Alpha	Beta	Correlation
Allspring	18.49 (95)	3.66 (26)	0.28 (17)	0.35 (40)	1.95 (22)	0.93 (98)	0.96 (83)
Fidelity	18.80 (82)	1.31 (91)	0.27 (18)	0.66 (12)	1.70 (30)	0.98 (73)	0.99 (6)
Invesco	19.06 (69)	1.78 (88)	0.26 (31)	0.53 (20)	1.69 (31)	0.99 (65)	0.99 (21)
Lazard	18.59 (91)	3.37 (33)	0.27 (30)	0.38 (39)	1.73 (27)	0.95 (91)	0.97 (55)
Northern Trust	18.44 (95)	0.62 (98)	0.24 (36)	1.27 (1)	1.14 (42)	0.97 (76)	1.00 (2)
PGIM	18.84 (75)	2.41 (68)	0.20 (62)	0.12 (62)	0.43 (72)	0.98 (74)	0.98 (23)
Mondrian (Incumbent)	19.17 (67)	2.77 (58)	0.12 (97)	(0.25) (97)	(0.94) (97)	0.99 (64)	0.98 (30)
Principal (Incumbent)	19.01 (70)	1.80 (88)	0.21 (55)	0.25 (48)	0.69 (61)	0.99 (61)	0.99 (9)
Callan Intl Small Cap*	19.52	2.91	0.22	0.25	0.97	1.00	0.97
MSCI:World xUS Small	18.94 (71)	0.00 (99)	0.18 (72)	0.00 (89)	0.00 (89)	1.00 (53)	1.00 (2)

Note: Manager candidate performance is shown gross-of-fees unless otherwise noted.

\*Results reflect peer group median performance.

Invesco's historical performance reflects simulated returns.

Northern Trust Quality Small Cap Core International strategy performance reflects simulated returns from 1/1/2014 to 10/31/2014, live returns from 11/1/2014 to 12/31/2020, and simulated returns from 1/1/2021-12/31/2023.

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## Appendix

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## Investment Terms

- **Alpha:** A measure of risk-adjusted return. It measures the excess return relative to the return expected from the portfolio's beta to a given benchmark and attempts to capture the return coming from asset specific (or residual) risks like stock selection and sector selection.
- **Beta:** Measures the sensitivity of portfolio returns to movements in the market index. A portfolio's beta measures the expected change in return per 1% change in the market return. If a beta of a portfolio is 1.5, a 1% increase in the return on the market will result, on average, in a 1.5% increase in the return on the portfolio.
- **Capitalization:** The capitalization for an individual stock is its stock price multiplied by the number of shares outstanding. The capitalization of an index reflects the capitalizations of the stocks contained in the index. While large cap stocks always represent the largest stocks in a universe there is no broadly accepted definition of how small the smallest large cap stock should be. Similarly, there is no broadly accepted definition of how large the largest small cap stock should be. Consequently, there is often capitalization overlap between indices.
- **Developed Markets:** Countries which have mature economies and long-established asset markets
- **Down Market Capture:** For a given evaluation horizon (10 years for example), isolates the periods where the benchmark had negative performance. Down market capture measures the ratio of the portfolio's cumulative returns in these periods to the benchmark's cumulative returns in the same periods.
- **Emerging Markets:** Countries which have economies which are developing rapidly and have relatively new asset markets
- **Economic Exposure:** An estimate of the regional allocation of a company based on the geographic distribution of its revenues rather than the country of domicile. Company-level economic exposures are aggregated to calculate a portfolio's overall economic exposure.



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## Investment Terms (Continued)

- **Excess Return:** A manager's return in excess of the return of the manager's benchmark
- **Excess Return Ratio:** A measure of risk-adjusted return. This ratio captures the amount of active management performance (excess return) per unit of active management risk (tracking error).
- **Excess Return Correlation:** The correlation of one portfolio's excess return to another portfolio's excess return. Excess return is the portfolio's return minus its benchmark's return.
- **Information Ratio:** The information ratio measures and compares the active return of an investment (e.g., a security or portfolio) compared to a benchmark index relative to the volatility of the active return (also known as active risk or benchmark tracking risk).
- **Manager Return Composite:** Manager composites are the returns for the aggregate of each manager's client portfolios.
- **Maximum Drawdown:** The worst peak-to-trough decline in a portfolio's value over the specified evaluation period.
- **Sharpe Ratio:** A measure of risk-adjusted return. This ratio captures the amount of excess return over the risk-free rate (usually 3-month T-Bills) per unit of absolute risk (standard deviation).
- **Standard Deviation:** Standard deviation reflects the average deviation of the observations from their sample mean. In the case of portfolio performance, the standard deviation describes the average deviation of the portfolio returns from the mean portfolio return over a certain period of time. Standard deviation measures how wide this range of returns typically is. The wider the typical range of returns, the higher the standard deviation of returns, and the higher the portfolio risk. If returns are normally distributed (i.e., has a bell-shaped curve distribution), then approximately 2/3 of the returns would occur within plus or minus one standard deviation from the sample mean.
- **Styles:** The three most common styles are growth, value and core. Growth stocks have relatively high growth in profits, sales and return on equity with relatively high prices to reflect these characteristics. Value stocks generally have low prices reflecting relatively low earnings growth but high dividend yields. Core stocks have characteristics which lie in between those of growth and value.

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## Investment Terms (Continued)

- **Tracking Error:** Tracking error is the volatility (as measured by standard deviation) of a portfolio's returns relative to its benchmark.
- **Up Market Capture:** For a given evaluation horizon (10 years for example), isolates the periods where the benchmark had positive performance. Up market capture measures the ratio of the portfolio's cumulative returns in these periods to the benchmark's cumulative returns in the same periods.

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Callan undertakes no obligation to update the information contained herein except as specifically requested by the client.

Past performance is no guarantee of future results.

# Quality Small Cap Core Strategy World ex-US

AS OF DECEMBER 31, 2023



Prepared for: **Public Employees' Retirement System of Mississippi**

April 23rd, 2024

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**NORTHERN TRUST**

# Meet the Team



**ASHLEY  
ALSON**

Director, Public  
Funds / Taft-Hartley



**MICHAEL  
HUNSTAD, Ph.D.**

Deputy CIO &  
CIO, Global  
Equities



**ROBERT BERGSON,  
CFA**

Senior Portfolio  
Manager



**JIM JOHNSON,  
CFA**

Senior Client  
Portfolio Manager

# QUANTITATIVE EQUITIES AT NORTHERN TRUST

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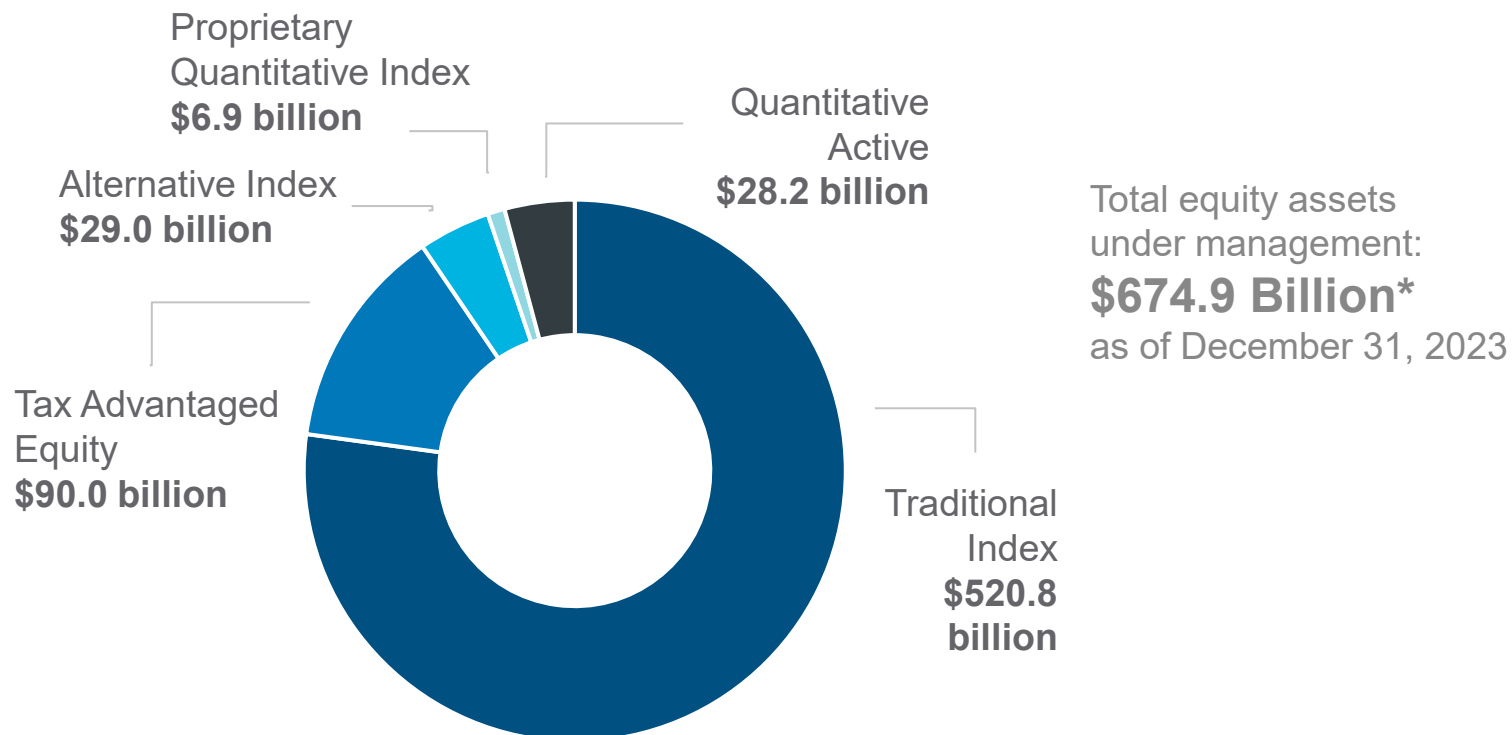


NORTHERN TRUST

ASSET MANAGEMENT

# Northern Trust Asset Management: Equity

*Global investment expertise across equity strategies*



Equity strategies are available in multiple vehicles (SMAs, CITs, UCITS, ETFs, mutual funds) and implementations (active and passive). The assets above include all vehicles and implementations of each strategy.

As of December 31, 2023 (updated quarterly). Source: NTAM Finance.

\*Equity AUM does not include \$32.0B of Multi-Manager Solutions Assets.

<sup>1</sup>Other category includes: custom factor combinations as well as real estate equity. <sup>2</sup>Multi-factor strategies target four or more factors.

Northern Trust Asset Management is composed of Northern Trust Investments, Inc., Northern Trust Global Investments Limited, Northern Trust Fund Managers (Ireland) Limited, Northern Trust Global Investments Japan, K.K., NT Global Advisors, Inc., 50 South Capital Advisors, LLC, Northern Trust Asset Management Australia Pty Ltd, and investment personnel of The Northern Trust Company of Hong Kong Limited and The Northern Trust Company to offer investment products and services to personal and institutional markets.

For purpose of compliance with the Global Investment Performance Standards (GIPS®) the firm is defined as Northern Trust Asset Management Services, a subset of Northern Trust Asset Management, and includes those investment products managed by NTI, NTGIL, NTGIJ and TNTC that are distributed through global channels.

As of 12/31/2023 Northern Trust Asset Management had assets under management totaling \$1.18 trillion of which \$1.11 trillion is part of the GIPS firm.

# Investment Philosophy

*Thoughtful and efficient factor exposures can generate consistent risk-adjusted performance*

Traditional Manager 'Skill'  
Is Difficult to Find

Systematic Factors  
Exhibit Persistent  
Excess Returns

Capture  
Excess Factor Returns  
Efficiently

Multi-Dimensional Factor  
Definitions are Essential

Build Multi-Factor Portfolios  
To Avoid Dilution

Strategies Designed  
for High  
Information Ratios

Please note that this information reflects current processes and that all steps of the analysis may not be taken for each investment.



# Quantitative Strategies

**Michael Hunstad, Ph.D.**

Deputy Chief Investment Officer &  
Global Equity CIO

## QUANTITATIVE STRATEGIES

AUM: \$35.1 Billion

**Mark Sodergren, CFA**

Head of Quantitative Strategies

**Guido Baltussen, Prof., Ph.D.**

Head of Quantitative Strategies, International

### PORTFOLIO MANAGEMENT

**Robert Bergson, CFA**

Head of Small Cap Portfolio Management

**Sri Kancharla, CFA**

Head of Large Cap Portfolio Management

**Matt Lambert**

Head of Portfolio Management, APAC

**Michelle Kelley, CFA, CFP**

Senior Portfolio Manager

**Reed LeMar, CFA**

Senior Portfolio Manager

**Jeff Sampson, CFA**

Senior Portfolio Manager

**Peter Zymali, CFP**

Senior Portfolio Manager

**Jiemin Xu, CFA, FRM**

Portfolio Manager

**Greg Ziton, CFA**

Portfolio Manager

### QUANTITATIVE RESEARCH

**Rob Lehnherr, CFA**

Head of Quantitative Equity Research

**Manan Mehta**

Head of Quantitative Fixed Income Research

**Abhishek Dhall, CFA, FRM**

Quantitative Research

**Mahesh Bodagama**

Quantitative Research

**Kushal Chourasia**

Quantitative Research

**Francisco E P De Azeredo, Ph.D.**

Quantitative FI Research

**Daniel Fang, CFA, CAIA**

Quantitative Research

**Sumedh M**

Quantitative Research

**Jyoti Prakash, CFA**

Quantitative Research

**Paul Stevenson, CFA**

Quantitative FI Research

**Milan Vidojevic, Ph.D.**

Quantitative Research

**Di Wang, Ph.D.**

Quantitative Research

### CLIENT PORTFOLIO MANAGEMENT ('CPM')

**Jordan Dekhayser, CFA**

Head of Client Portfolio Management

**Abhishek Gupta**

Senior Quantitative CPM

**Christopher Huemmer, CFA**

Senior Equity/ETF CPM

**Jim Johnson, CFA**

Senior Quantitative CPM

**Pattawan Phanussopakul**

Senior Quantitative CPM

**Diana Olteanu-Veerman, CFA**

Senior Quantitative CPM

**Thomas Wackerlin, CFA**

Senior Quantitative CPM

**Matt Connelly**

Quantitative CPM

**Isabel Machlin**

Quantitative CPM

**Nigel Cheung, CFA**

Quantitative CPM

### QUANTITATIVE ANALYTICS

**Tim Detroy**

Head of Quantitative Analytics

**Danny Breyfogle**

Quantitative Analyst

**Vincent Itoku**

Quantitative Analyst

**Akshay Bhat**

Quantitative Analyst

**Tejas Sharad Chaudhari**

Quantitative Analyst

## QUALITY SMALL CAP CORE

AUM: \$1.9 Billion

### PORTFOLIO MANAGEMENT

Industry (Yrs) Firm (Yrs)

**Robert H. Bergson, CFA**

Head of Small Cap Portfolio Management

28

26

**Reed LeMar, CFA**

Senior Portfolio Manager

19

16

**Greg Ziton, CFA**

Portfolio Manager

7

7

**Jiemin Xu, CFA, FRM**

Portfolio Manager

9

7

### EQUITY SPECIALISTS

**Christopher Fronk, CFA, CPA**

Senior Equity Specialist

**Emily Lawrence**

Senior Specialist – Sustainable Investing

**Austin Guy, CFA**

Equity Specialist

All data as of December 31, 2023. Source: NTAM

There is no guarantee that team structures and employees will remain the same. They are subject to changes without notice.

# Quality Small Cap Core

*The strategy seeks to efficiently capture the small cap premium and deliver excess returns by investing in a diverse portfolio of quality small cap companies.*

## INVESTMENT HIGHLIGHTS

- Focus on adherence to style objectives and outperformance since inception
- Stable, long-tenured team with consistent portfolio management leadership in place since inception in 1999
- Favorable risk-adjusted profile with top quartile information ratio within U.S. peer group since inception

## INVESTMENT APPROACH

- Efficiently capture small cap premium across small and micro-cap companies
- Apply multi-factor models to identify quality - avoid value traps and unsustainable growth
- Focus on efficiency by managing costs and trading when necessary

## INVESTMENT GUIDELINES

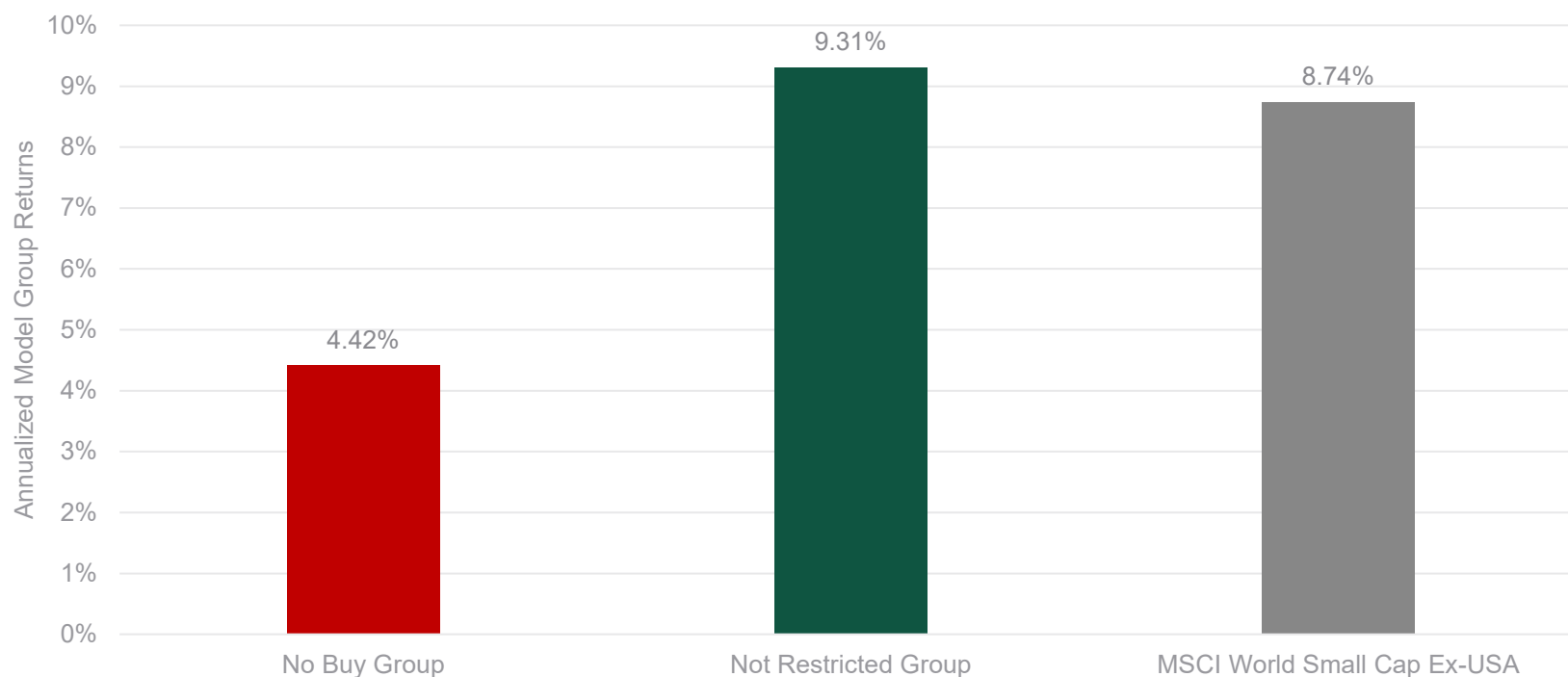
- Target tracking error<sup>1</sup>: 100-300 bps
- Sector weights +/- 100 bps | Security weights +/- 50 bps | Region weights +/- 200 bps
- Estimated annual turnover<sup>2</sup> 15 – 20%

<sup>1</sup>There is no guarantee that tracking error targets can be achieved. Tracking error represents the standard deviation of the differences between the investment performance of the strategy or fund and that of the Index. <sup>2</sup>Future forecasts are based upon proprietary research and should not be construed as a promise of actual results that the strategy may achieve. Actual results could differ materially from the forecast.

# Factors in Developed Markets ex-US Small Cap

*Northern Trust's factor models have been effective sources of alpha Globally*

## Small Cap Developed Markets ex-US Returns by Factor Grouping in Index Live and Backtested 12/31/2001 - 12/31/2023



Source: NTGI Quant Research, Returns from Wilshire. From 12/31/2001– 12/31/2023. Please see slide 17 for which periods are simulated.

Information is provided to illustrate typical sectors in which the portfolio may invest and to reflect representative portfolio characteristics. It should not be considered investment advice or a recommendation to buy or sell any security. It should not be assumed that any investments were profitable or will prove to be profitable, and past performance does not guarantee future results. Information is subject to change without notice.

# Multi-factor Framework: Quality And Size

*Fundamental evaluation of small-cap stocks using a quantitative stock selection model*

- Apply to liquid segments of small capitalization universe
- Separate models applied to 'value' and 'growth' companies
- Employ a specialized model for the banking industry: Capital Adequacy, Efficiency, and Solvency
- Rank stocks independently by Momentum



# Investment Process

*A disciplined multi-factor approach seeking to yield consistent performance and stable risk profile*

---

## Create a diverse universe of small cap stocks

- ~ 2,500 stocks
- Small cap companies
- Avoid investment in penny stocks
- Excludes preferreds, convertibles, ADRs

---

## Portfolio Construction

- Score by quality metrics
- Rank by quality score
- Eliminate lower quality stocks
- Sell low quality rated stocks with low momentum

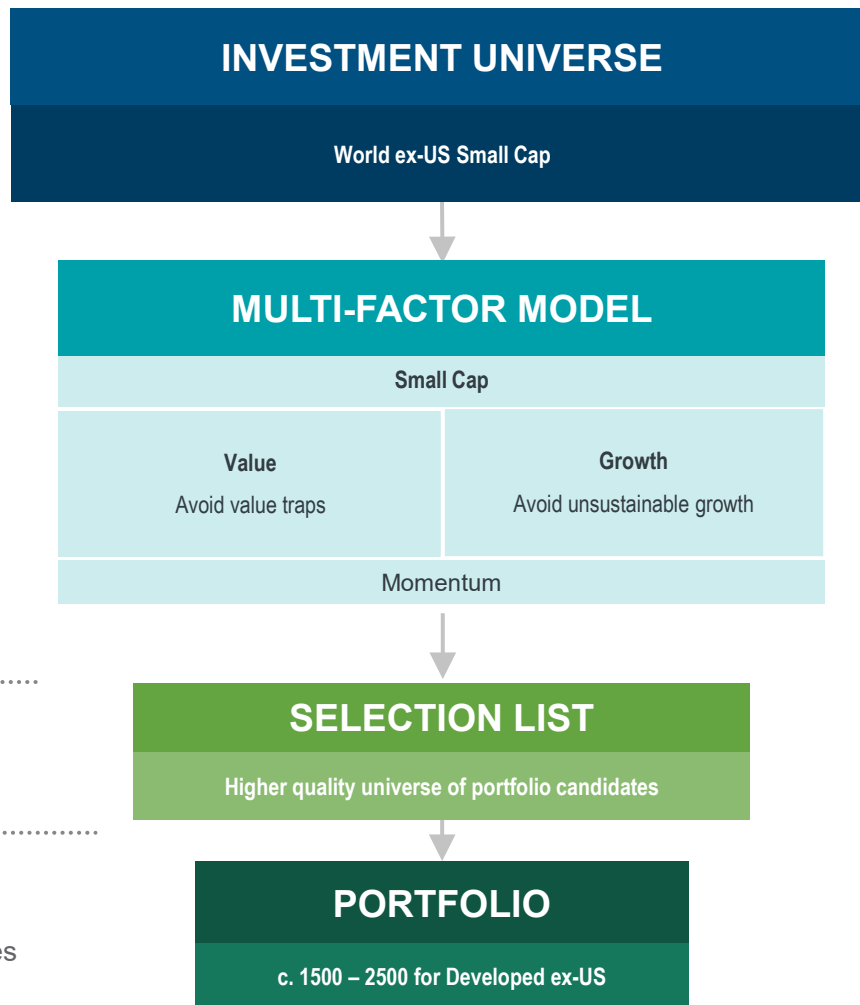
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## Final stock rankings

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## Optimize portfolio and review

- Constructed to balance return and risk
- Targeted sector and capitalization exposures
- Positioned for consistency
- Manage transaction costs, turnover and trading strategies



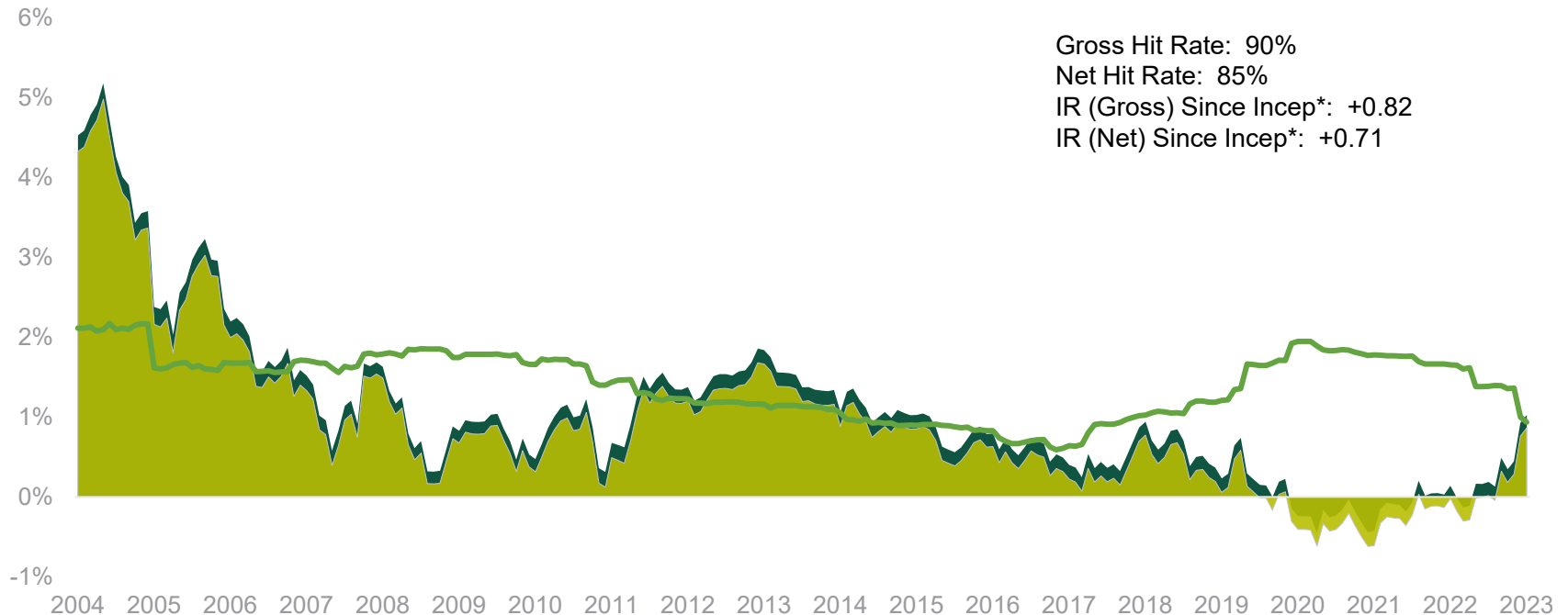
Please note that this information reflects current processes and that all steps of the analysis may not be taken for each investment.

# Quality Small Cap Core World Ex-US V. MSCI Small Cap Ex-US\*\*

*Consistent hypothetical outperformance on a rolling 3-year basis with minimal tracking error*

## Rolling 3-Year Excess Returns (Annualized)

■ Gross Excess ■ Net Excess — Rolling Tracking Error



\*Since Inception: 12/31/2001

IR stands for information ratio which is the difference between the return of the portfolio and the benchmark divided by tracking error. Tracking error measures the standard deviation of the difference of returns between the portfolio and the benchmark.

\*\* Benchmark constructed bottom-up on a monthly basis using pricing and history from Wilshire.

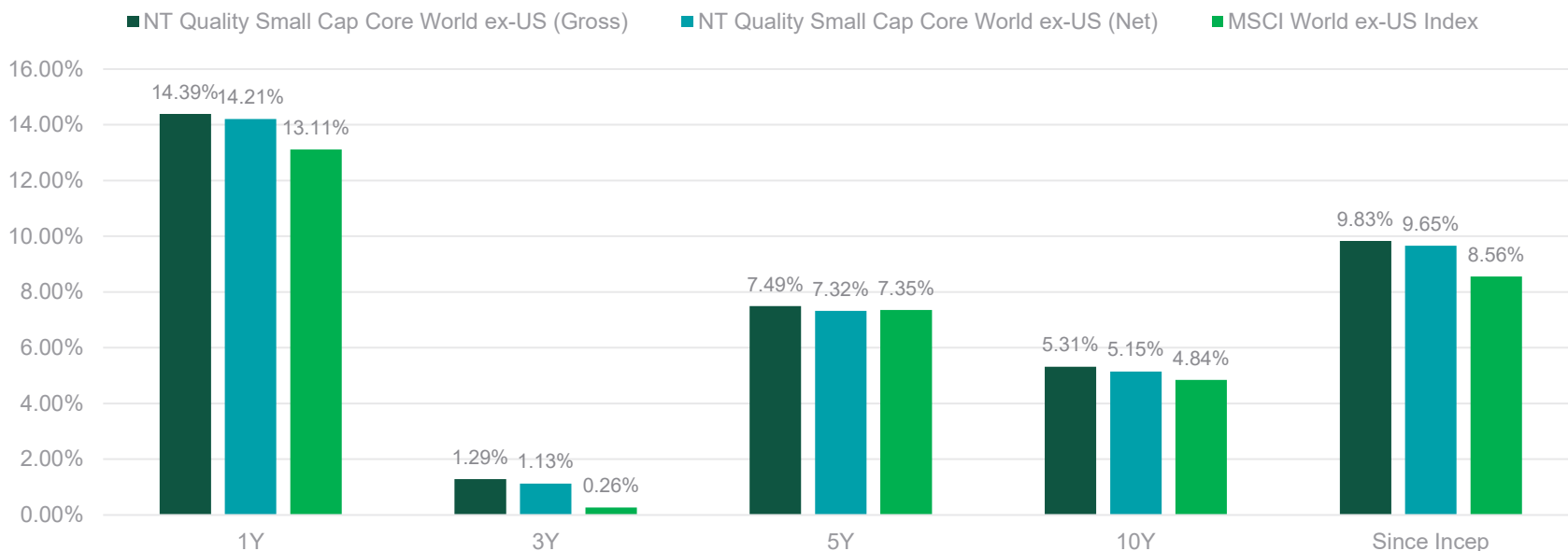
Returns for periods greater than one year are annualized. Gross performance returns shown do not reflect the deduction of investment management/advisory fees, assume the reinvestment of dividends and capital gains, and are net of transaction costs and other expenses. Performance results will be reduced by the fees incurred in the management of the account. Net performance returns are reduced by investment management fees and other expenses relating to the management of the account. Net-of-fee returns are calculated based upon an annual fee of 16 bps applied monthly. Index performance returns do not reflect any management fees, transaction costs or expenses. It is not possible to invest directly in any index. Past performance is not indicative of future results. Investment management/advisory fees are described in Northern Trust Investments, Inc. Form ADV Part 2A.

Quality Small Cap Core [QSCC] International reflects back-tested returns for the Quality Small Cap Core strategy in the MSCI World ex-U.S. Small Cap investment universe. Back-tested performance results do not reflect actual trading and have certain inherent limitations. The back-tested data contained herein does not represent the results of an actual investment portfolio but reflects the hypothetical historical strategy performance of [QSCC]. Specifically, these results were constructed using back-tested results from 12/31/2001 – 10/31/2014 and from 12/31/2020 – 12/31/2023. From 10/31/2014 – 12/31/2020, live results from the existing QSCC Int'l composite were used. This date period represents the full history of that strategy. **Past Performance is not indicative of future results. For Illustrative Purposes Only.** Please see important information on Hypothetical Returns at the end of this presentation.

# Hypothetical Investment Performance V. MSCI Small Cap Ex-US\*\*

As of December 31, 2023

## Annualized Performance



Excess Return	1Y	3Y	5Y	10Y	Since Inception*
Gross of Fees	1.28%	1.03%	0.14%	0.47%	1.27%
Net of Fees	1.10%	0.86%	-0.03%	0.31%	1.10%

\*Since Inception: 12/31/2001

\*\* Benchmark constructed bottom-up on a monthly basis using pricing and history from Wilshire.

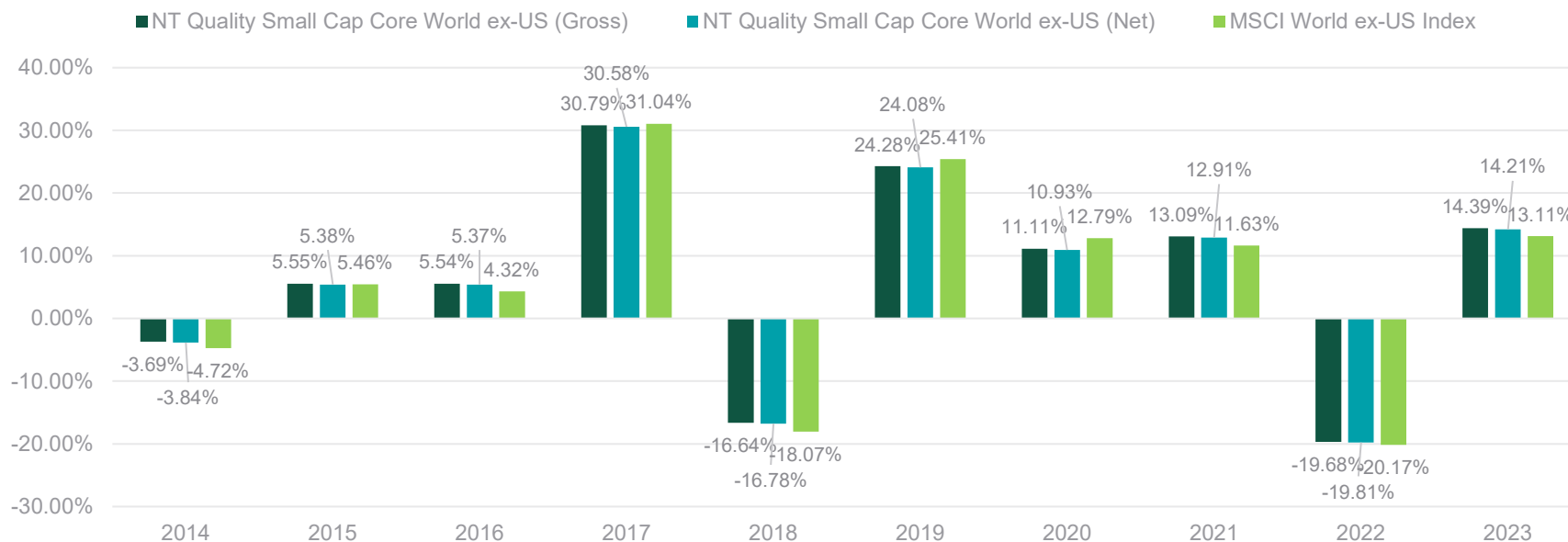
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# Hypothetical Investment Performance V. MSCI Small Cap Ex-US\*\*

As of December 31, 2023

## Calendar Year Performance



Excess Return	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Gross of Fees	2.11%	1.03%	0.09%	1.22%	-0.25%	1.43%	-1.13%	-1.68%	1.47%	0.50%	1.28%
Net of Fees	1.91%	0.88%	-0.08%	1.06%	-0.45%	1.29%	-1.33%	-1.86%	1.29%	0.37%	1.10%

\*Since Inception: 12/31/2001

\*\* Benchmark constructed bottom-up on a monthly basis using pricing and history from Wilshire.

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# APPENDIX

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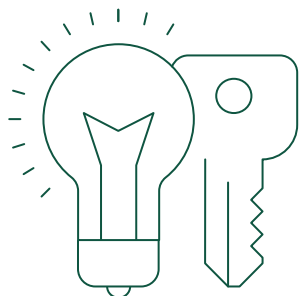


NORTHERN TRUST

ASSET MANAGEMENT

# Quality Small Cap Core World ex-US

*Approach especially well suited for small caps in Developed Markets ex-US*



01

Factors such as Quality and Momentum exhibit strong efficacy in Developed Small Cap, consistent with factor performance in US Small Cap

02

Controlling risk and turnover is essential to success

03

Deeply experienced portfolio management and trading teams that understand the nuances of the markets they operate in from both an investment and execution perspective

# Portfolio Characteristics – Quality Small Cap Core Ex-US

As of December 31, 2023

PORTFOLIO CHARACTERISTICS			SECTOR ALLOCATION (%)			TOP HOLDINGS (%)		
	Portfolio	Benchmark		Portfolio	Benchmark			
Number of Holdings	1,454	2,386	Industrials	24.4	22.4	BELIMO Holding AG		1.7
Weighted Average Market Cap (MM)	3,291.5	2,822.4	Consumer Discretionary	11.8	12.0	Georg Fischer AG		1.5
Return on Equity (ROE)	13.1	10.7	Financials	11.7	11.2	ALK-abello A/S Class B		1.0
Price-to-Earnings(P/E) – FY1 Est	13.3	13.3	Materials	10.7	10.9	Fortnox AB		0.6
Price-to-Book (P/B)	1.4	1.3	Information Technology	9.5	9.6	Sohgo Security Services Co., Ltd.		0.4
Net Margin	11.2	10.0	Real Estate	9.1	10.5	Melrose Industries PLC		0.4
Dividend Yield	3.0	2.9	Consumer Staples	6.2	6.1	Centrica plc		0.3
Ex-ante Tracking Error (Barra)	1.8	--	Health Care	6.0	5.9	BE Semiconductor Industries N.V.		0.3
			Energy	4.2	4.8	Beijer Ref AB Class B		0.3
			Communication Services	3.5	3.7	Intermediate Capital Group plc		0.3
			Utilities	2.9	2.8			

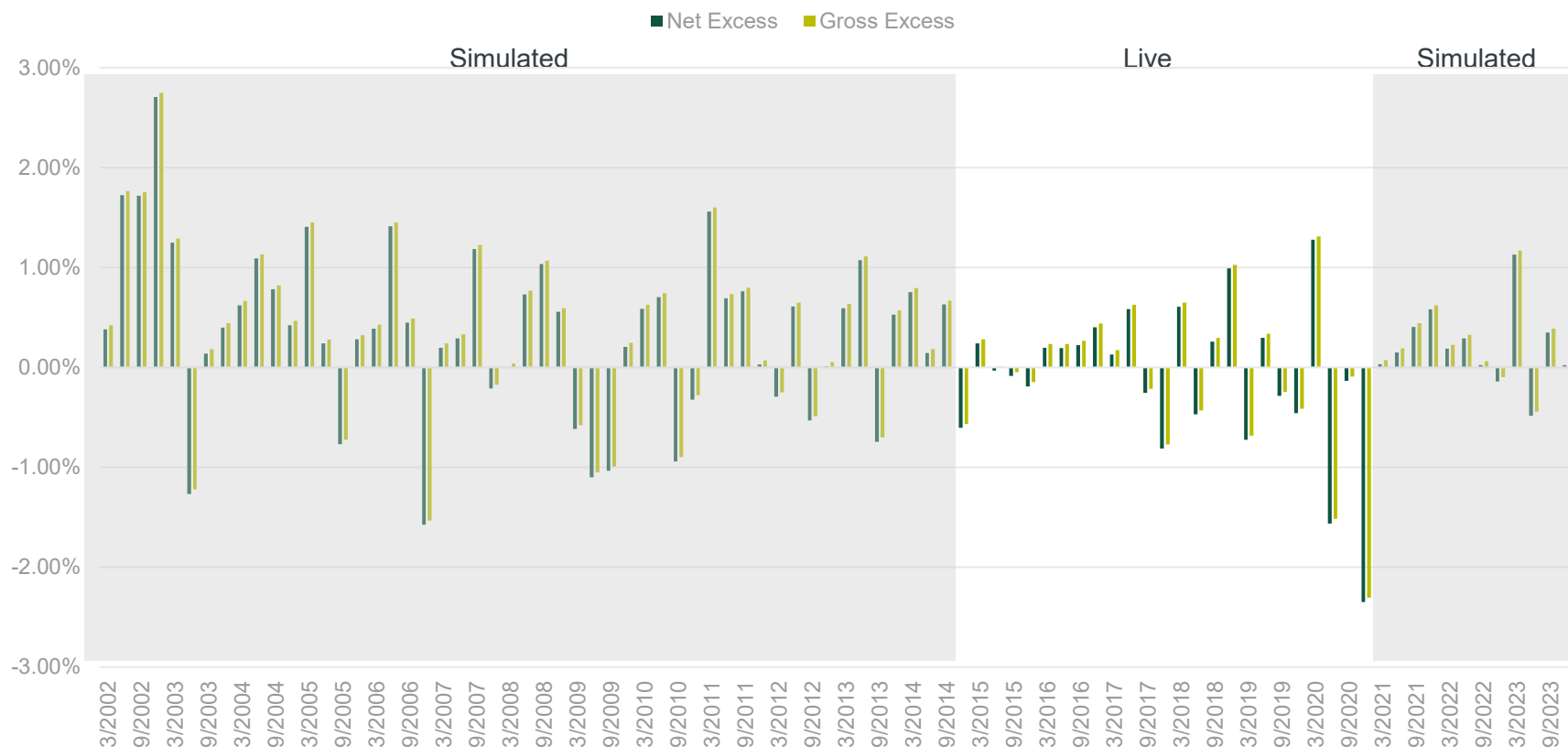
  

MARKET CAPITALIZATION (%)			Trailing P/E (%)			REGION (%)		
	Portfolio	Benchmark		Portfolio	Benchmark		Portfolio	Benchmark
Largest Market Cap Quintile	53.8	46.1	Highest P/E Quintile	22.0	21.4	North America	9.9	9.2
2 <sup>nd</sup> Quintile	21.7	24.7	2nd Quintile	23.2	23.4	Europe & Middle East	50.6	47.9
3 <sup>rd</sup> Quintile	11.9	14.7	3rd Quintile	21.4	20.1	Asia Pacific	39.5	42.9
4 <sup>th</sup> Quintile	6.5	8.9	4th Quintile	18.8	18.1			
Smallest Market Cap Quintile	6.1	5.6	Lowest P/E Quintile	14.5	17.0			

These are hypothetical characteristics. Benchmark is the MSCI Small Cap Ex-US Index. All ratios are calculated using the weighted average or weighted harmonic average using adjustments to account for negative items. Information is provided to illustrate typical sectors and securities in which the portfolio may invest and to reflect representative portfolio characteristics. It should not be considered investment advice or a recommendation to buy or sell any security. There is no guarantee that securities remain in the portfolio or that securities sold have not been repurchased. It should not be assumed that any investments were profitable or will prove to be profitable, and past performance does not guarantee future results.

# Quality Small Cap Core World Ex-US V. MSCI Small Cap Ex-US\*\*

Live + Simulated Performance: 12/31/2001 – 12/31/2023 Quarterly Excess Returns



\*Since Inception: 12/31/2001

\*\* Benchmark constructed bottom-up on a monthly basis using pricing and history from Wilshire.

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# Biographies

**Ashley Alson** is a Director for the Institutional Client Group at Northern Trust Asset Management. In her role, Ashley will deliver investment solutions, including equity, fixed income, and alternative asset classes, to public funds, sovereign wealth funds, and international organizations. She has 20 years of financial industry experience, a majority of it developing business and managing client relationships with institutional investment programs.

Ashley joined from Janus Capital Group, where she was a Client Executive, responsible for new business development with mid-sized public, corporate, endowment and foundation plans. Previously, she was a Senior Relationship Manager for Morgan Stanley Investment Management, focusing on large corporate liquidity sales. Ashley also held several roles at JPMorgan for eight years, most recently as a Client Advisor in Institutional Asset Management. Ashley graduated from Purdue University with a BS in Accounting. Ashley holds Series 3, 7, 30 and 63 licenses.

**Michael Hunstad, PhD** is deputy chief investment officer and chief investment officer of global equities for Northern Trust Asset Management. Michael is a member of the Asset Management Executive Group and has oversight of all equity portfolio management, research and trading activities including quantitative, index and tax-advantaged strategies. Additionally, he assists with the development of investment vision, strategy portfolio construction and risk management framework for the firm's broad investment platform.

Previously, Michael was Head of Quantitative Strategies where he was responsible for leading Northern Trust Asset Management's factor based research, portfolio management and product development programs. Before joining Northern Trust, he was head of research at Breakwater Capital, an algorithmic trading firm and hedge fund. Prior to that role, he was head of quantitative asset allocation at Allstate Investments, LLC and a quantitative analyst with a long-short equity hedge fund. Michael has also served as an adjunct professor at the Illinois Institute of Technology. Michael holds a Ph.D. in mathematics, an MBA in finance, an M.A. in econometrics and a bachelor's degree in economics.

# Biographies

**Robert Bergson** is head of small cap quantitative active portfolio management. He is responsible for research and implementation of several small cap equity strategies representing more than \$3.5 billion in small cap assets. Prior to joining Northern Trust in 1997, Robert served as director of investment research for Real Estate Research Corporation, a real estate consulting and research firm. Robert earned a bachelor's degree from Carnegie Mellon University and a master's degree in real estate development from the Massachusetts Institute of Technology. He is a CFA® charterholder and a member of the CFA Institute, the CFA Society Chicago and the Chicago Quantitative Alliance.

**Jim Johnson** is a Senior Client Portfolio Manager and Senior Vice President with the Quantitative Strategies Group at Northern Trust Asset Management. The group collaborates with institutional and private wealth investors to understand their unique circumstances and to deliver value added insights and solutions that provide the optimal path to achieving their investment objectives. The team provides research and investment thought leadership to investors globally and is responsible for developing comprehensive quantitative factor-based investment solutions.

Prior to joining Northern Trust in July 2020, he spent 8 years at TIAA/Nuveen where he managed over \$12 billion in active quantitative stock selection strategies that he designed from scratch. Prior to TIAA, Jim spent 7 years as a portfolio manager at State Street Global Advisors, where he was part of a 75+ person global quantitative team. Before SSgA, he ran a small quantitative team at American Express Financial Advisors, now Ameriprise.

Jim has a BS in Music Engineering from the University of Miami (FL), and an MBA with a Finance Concentration from the University of Minnesota Carlson School of Business. Jim is a CFA charter holder, a member of the CFA Institute, and the CFA Society of Chicago. He is also a member of the Chicago Quantitative Alliance.

# DISCLOSURES

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**Past performance is not a guarantee of future results.** Performance returns and the principal value of an investment will fluctuate. Performance returns contained herein are subject to revision by NTAM. Comparative indices shown are provided as an indication of the performance of a particular segment of the capital markets and/or alternative strategies in general. Index performance returns do not reflect any management fees, transaction costs or expenses. It is not possible to invest directly in any index. Net performance returns are reduced by investment management fees and other expenses relating to the management of the account. Gross performance returns contained herein include reinvestment of dividends and other earnings, transaction costs, and all fees and expenses other than investment management fees, unless indicated otherwise. For additional information on fees, please refer to Part 2a of the Form ADV or consult an NTI representative.

Forward-looking statements and assumptions are NTAM's current estimates or expectations of future events or future results based upon proprietary research and should not be construed as an estimate or promise of results that a portfolio may achieve. Actual results could differ materially from the results indicated by this information.

# DISCLOSURES

## Important Information

Hypothetical portfolio information provided does not represent results of an actual investment portfolio but reflects representative historical performance of the strategies, funds or accounts listed herein, which were selected with the benefit of hindsight. Hypothetical performance results do not reflect actual trading. No representation is being made that any portfolio will achieve a performance record similar to that shown. A hypothetical investment does not necessarily take into account the fees, risks, economic or market factors/conditions an investor might experience in actual trading. Hypothetical results may have under- or over-compensation for the impact, if any, of certain market factors such as lack of liquidity, economic or market factors/conditions. The investment returns of other clients may differ materially from the portfolio portrayed. There are numerous other factors related to the markets in general or to the implementation of any specific program that cannot be fully accounted for in the preparation of hypothetical performance results. The information is confidential and may not be duplicated in any form or disseminated without the prior consent of NTAM.

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# Grosvenor Capital Management

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## Private Equity Fund Recommendation April 23, 2024

Jason Clark

Lead Portfolio Manager – Alternatives



Date: April 23, 2024

To: PERS Investment Committee

Re: GCM 2024 Series – Private Equity Commitment

In 2006 the PERS Board of Trustees first adopted an asset allocation target of 5% to Private Equity. In 2008, the private equity investment program was launched with the hiring of Pathway Capital Management and Credit Suisse Custom Funds Group (now Grosvenor Capital Management) to each manage portfolios of private equity partnerships on behalf of PERS. Each firm received an initial commitment of \$750 million to be used for making investments in private equity limited partnership interests, with a fund-of-one structure.

In 2013, an asset allocation study was conducted which resulted in the target allocation for Private Equity being increased to 8%. By this time, the two fund-of-one managers had fully committed the \$750 million allocation awarded in 2008, yet PERS investments in private equity had not reached the original 5% target for the asset class. Since the private equity investments “committed capital” is not actually invested until the underlying general partner requests the funds, the amount of capital invested can often be a much lower amount than that of the capital contractually committed. This along with the increase in the target allocation resulted in the PERS Board approving a second commitment of \$700 million to each fund manager.

In mid-2013, the Credit Suisse Custom Funds Group team announced it was being purchased by Grosvenor Capital Management (GCM). Because this transaction did not close until January 2014, GCM did not begin making capital commitments for the \$700 million until the first quarter of 2014.

As each of the dedicated managers neared the end of committing the capital in their second series, PERS’ total allocation to private equity was at approximately 6% and still primarily in the investment and growth phases of each commitment series’ lifecycle. PERS Investment Staff worked with Callan Consulting to develop a new pacing study for projected capital deployment and distribution activity for all four existing investment series to determine the appropriate commitments needed for future series. Upon completion of this review, it was determined that in the best interest of reaching the plan’s target allocation, a third series for both GCM and Pathway should be committed.

The remaining investments within the GCM 2009 Series are now mature and in the harvest phase of their lifecycle, when profits are realized, and investment gains are distributed. The GCM 2014 Series is towards the end of the appreciation stage as all committed capital has been deployed and distributions are in the process of being realized. The 2018 Series has just finished committing capital as of August 2023 and is still closing on investments that make up the series. With the first two series investments having finished their investment phase and in the process of building equity and/or harvesting profits in the form of distributions, the 2018 Series is following closely behind and should finish with similar results in the upper quartiles relative to peer vintage year investments.

As of January 2021, Pathway completed committing allotted capital for their 2016 series and a new fourth commitment was proposed and approved. If approved, this proposed new 2024 Series to GCM would be the fourth series commitment in the relationship. In late 2023 and early 2024, PERS Investment Staff working with Callan Consulting conducted another commitment pacing review, where it was agreed that a new commitment be proposed to GCM for a 2024 Private Equity series at a continued commitment level of \$120 million annually (\$360 million over 3-year commitment period), which was the same pace of the GCM 2018 Series. The primary difference proposed in the new 2024 Series will be the addition of a 10% allotment for co-investment opportunities.

In June of 2022, after an Asset Liability Study the PERS Investment Committee added Private Credit and Infrastructure into the portfolio, as well as increased the allocation to Private Equity from 8% to 10%. Currently, the Private Equity program is overallocated at approximately 12%, due primarily to recent public market volatility and manager outperformance. Although above target, the maturity of the program has allowed for a portfolio that is cashflow positive and is now distributing more capital than is being called on an annual basis. As the portfolio continues to mature and realize gains from the past series of investments, these net distributions are expected to increase in the coming years allowing for more than enough to fund capital call demands, which will achieve the goal of bringing the portfolio allocation back down below the target of 10% within the next two years, without missing a vintage year of investments.

It is important to understand that this proposal for a new series does not constitute a new contract or partnership between PERS of MS and GCM Grosvenor Capital Management. This proposal for a new series is only an amendment to the existing Limited Partnership Agreement, which began with the initial series of investments in 2009. Below are a few items of note and interest concerning the proposed 2024 Series as well as the on-going relationship between Grosvenor Capital Management and PERS of Mississippi.

- With PERS being slightly over allocated to the targeted 10%, PERS thought it best to shorten the commitment phase of the series from 5 years to 3 years. This was done so that the team could be more flexible in making changes to commitment levels and deal flow based on market conditions and future liquidity needs.
- In previous investment series commitments to GCM, PERS as a returning investor has realized a favorable reduction in fees, with the same being realized for this new 2024 Series compared to the 2018 Series. After much discussion and negotiation with PERS Staff, due to the ongoing relationship with both the Private Equity and Private Credit asset classes, GCM agreed to give a 5-bps reduction on the annual base manager fees for primary investments. This will result in an average savings of approximately \$107,000 annually, and just over \$1.6 million over the 15-year life of the 2024 Series.
- Proposed in this GCM 2024 Series, the total commitment amount will be broken down into two Private Equity investment types. Primary investments, which have in the past made up 100 percent of the GCM relationship, will now represent 90 percent of the partnership, with the opportunity of a 10 percent allocation to GCM's direct co-investment fund (GCF III). Co-investments are not new to PERS' Private Equity portfolio, as Pathway Capital Management currently provides a small exposure to these opportunities as well.

- While it can be noted that both PERS Private Equity relationships have performed above initial expectations, a point of interest is that both programs have outperformed the S&P 500 over the life of the relationships beginning in 2008 and 2009 respectively. As of September 30, 2023, the PERS of Mississippi program series of investments beginning in 2009, has outperformed the S&P 500 by \$246 million from a total value perspective. It is also of note that the PERS Private Equity program is now cash flow positive, meaning the partnership with GCM and Pathway have now distributed more capital back to PERS than has been deployed, while currently maintaining a net asset value of investments of just under \$4 billion.

Included in this proposal is a report requested by PERS staff from GCM explaining the benefits of a Private Equity portfolio compared to that of a public equity S&P 500 Index, along with a performance comparison of the PERS relationship since initial adoption. Also included for consideration with this proposal to invest is the Callan Consulting Due Diligence report requested by PERS investment staff. In the Callan report are details related to Grosvenor Capital Management as an organization, detailed performance of prior series investments, as well as their feedback as it relates to this recommended commitment to the 2024 Series. The findings from that analysis have been provided for the Investment Committee's review as confirmation that this fund is suitable for PERS' continued partnership participation. Based on the information provided, as well as the tenure, stability, and their success in managing unique investment opportunities within Private Equity, PERS staff recommends a continued partnership with a fourth commitment of \$360 million to a GCM 2024 Series.

## Private Equity Strategies

Primary funds are the most common means of accessing Private Equity investments within a portfolio. Primary funds are comingled opportunities offered at the time of fundraising with an expected lifecycle of approximately 15 years. There are three types of Private Equity primary funds utilized within the PERS of Mississippi portfolio. Listing them according to lowest risk/return to highest, they include:

- **Buyouts** – This occurs when a buyer acquires more than 50% of a company, leading to a change of control. In private equity, investors seek out underperforming or undervalued companies that they can take private and make more attractive, before selling or going public years later. The target gross IRR for this type of investment is 18%, with a target gross multiple of 2.0x.
- **Special Situations** – These are investments in companies that may have an element of distress, dislocation, dysfunctional or industry specific and that are perceived to be undervalued. Sought after are those private companies where the general partner can gain control of, or significant influence over, companies exhibiting such characteristics and then actively manage those businesses to deliver value as a private equity-like structure. The target gross IRR for this type of investment is 15% - 20%, with a target gross multiple of 1.6x – 1.8x.
- **Venture / Growth Capital** – This is financing that investors provide to startup companies and small businesses with little to no initial revenue that are believed to have long-term growth potential. Typically, large ownership chunks of a company are created and sold to a few investors through independent limited partnerships that are established by venture capital firms. The target gross IRR for this type of investment is 25% - 30%, with a target gross multiple of > 3.0x.

Co-investments are opportunities for investors to invest outside of the traditional fund structure and instead alongside the asset management company with a more targeted approach. Co-investments are beneficial within a portfolio as they provide greater diversification and opportunities with a more selective and targeted approach to specific market sectors and geographies. Within co-investment opportunities, the pool of investors is smaller than traditional primary opportunities, with shorter timeframes, and increased downside protection with a mitigated J-Curve, which allows for opportunities with increased returns. Another significant benefit to co-investments is the favorable economics and the reduction of fees due to the less complex structure.

### GCM 2024 Series target allocation ranges:

- **Primary Funds:** **90%**
  - Buyouts: 58% - 78%
  - Special Situations: 13% - 28%
  - Venture Capital: 10% - 23%
- **Co-investments:** **10%**

# GCM GROSVENOR DIVERSIFIED PARTNERS, L.P.

## PUBLIC EMPLOYEES' RETIREMENT SYSTEM OF MISSISSIPPI PUBLIC MARKET EQUIVALENT ANALYSIS

MARCH 2024

**CONFIDENTIAL – NOT FOR REDISTRIBUTION**

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# THE PRIVATE EQUITY OPPORTUNITY – KEY STATS

Private markets are significantly larger than public markets:  
**95% vs 5%**<sup>1</sup>

Since 2006, global private equity assets under management have increased  
**~7x**<sup>3</sup>

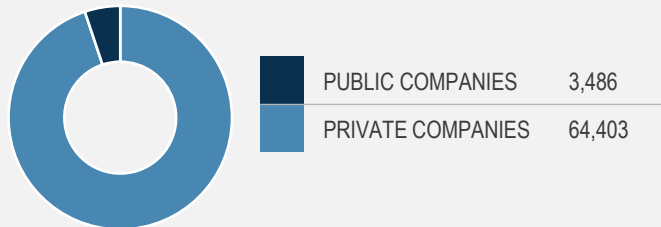
Over **60%** of investors allocate to private equity.<sup>4</sup>

Nearly **15%** average target allocation to private equity.<sup>4</sup>

## Universe of Private Companies is Large<sup>2</sup>

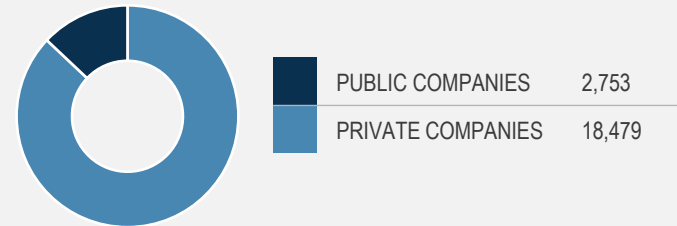
### UNITED STATES ≥ \$25 MILLION LTM REVENUE

#### Number of Private Companies vs. Public Companies



### UNITED STATES ≥ \$100 MILLION LTM REVENUE

#### Number of Private Companies vs. Public Companies



1 Data source: S&P Capital IQ. Includes companies with revenues ≥ \$25 million in the United States. Data as of March 20, 2024.

2 Data source: S&P Capital IQ. Includes companies with revenues ≥ \$25 million & ≥ \$100 million in the United States. Data as of March 20, 2024.

3 Sources: The above graph was prepared as of 30 June 2023 by GCM utilising certain information obtained from the database of Preqin Ltd. Assets under management represents the sum of available Dry Powder and unrealised value. Preqin Ltd. has not provided consent for the use of its data.

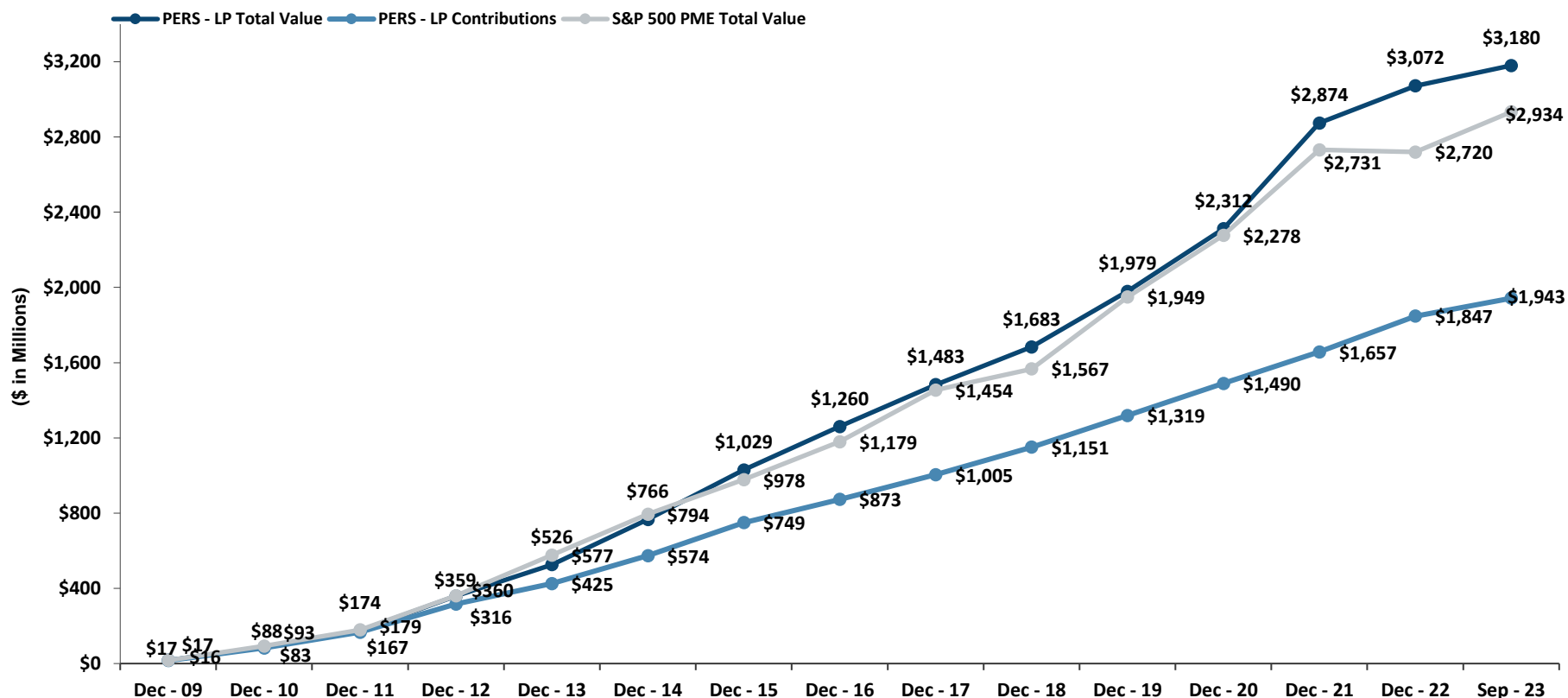
4 Source: Preqin, Ltd. H2 2023 Investor Outlook. Preqin Ltd has not provided consent for use of this data.

**For illustrative purposes only.** Unless apparent from context, all statements herein represent GCM Grosvenor's opinion.



# PROGRAM (PERS - LP LEVEL) ANNUAL TOTAL VALUE VS. S&P 500 PME TOTAL VALUE

As of September, 30, 2023, the Program (PERS - LP Level) has outperformed the S&P 500 PME by \$246 million from a total value perspective.



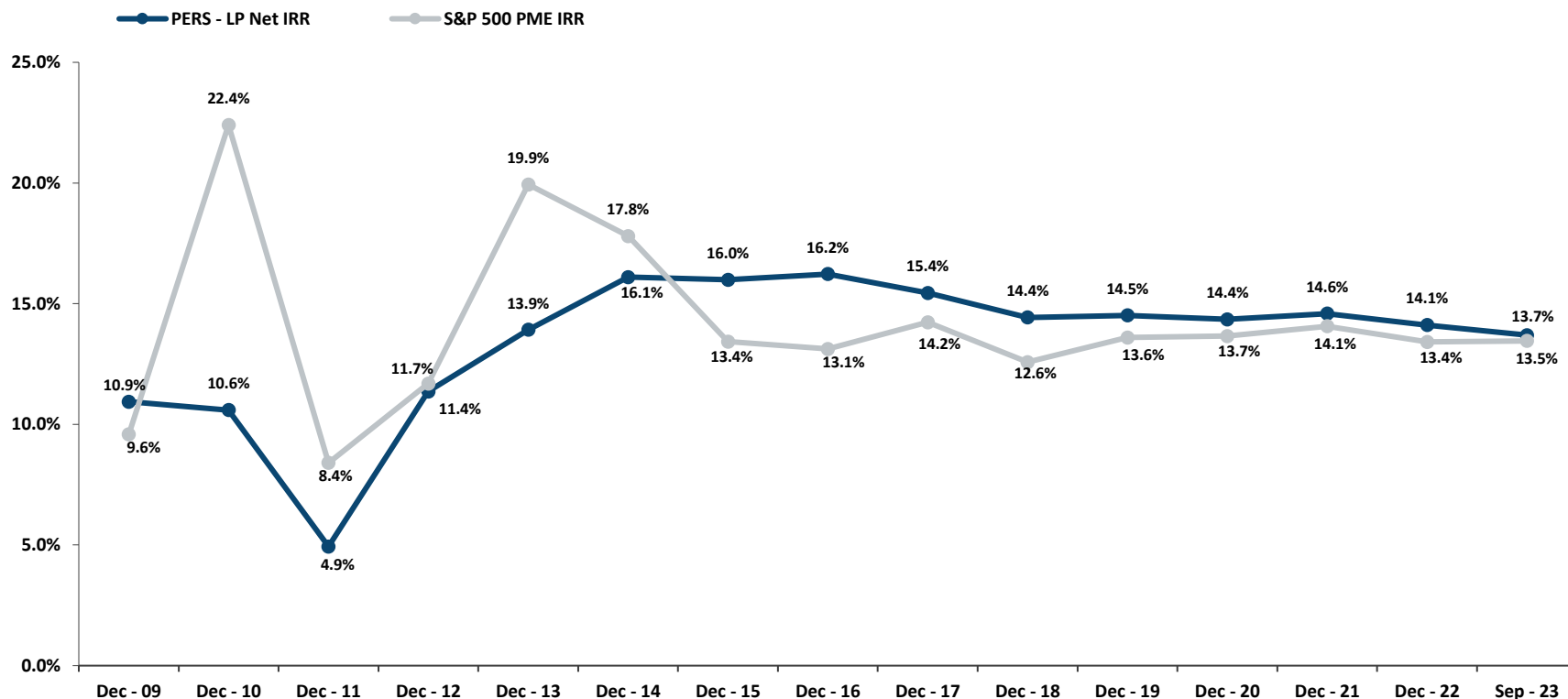
1. Total Value is equal to LP distributions plus LP NAV as of the respective dates.

Valuations and cash flows are as of the respective dates, with December Program-related amounts corresponding to LP's share of amounts reported in the Program's respective audited financials. The September 30, 2023 Program (LP Level)-related amounts include a pro forma carried interest adjustment to account for the update of June 30, 2023 to September 30, 2023 valuations (i.e., will not foot to standard Program (LP Level) quarterly reporting, which reflects valuations on a quarter-lag to reporting date with cash flows through quarter-end).

Past performance is not necessarily indicative of future results. No assurance can be given that any investment will achieve its objectives or avoid losses. Please see the slides following this presentation entitled "Summary of Endnotes."

# PROGRAM PERS - LP NET IRR ANNUAL BENCHMARKING COMPARISON

The Program has outperformed the S&P 500 PME over the past nine years, with PERS - LP Net IRR outperformance of 159 bps as of September 30, 2023.

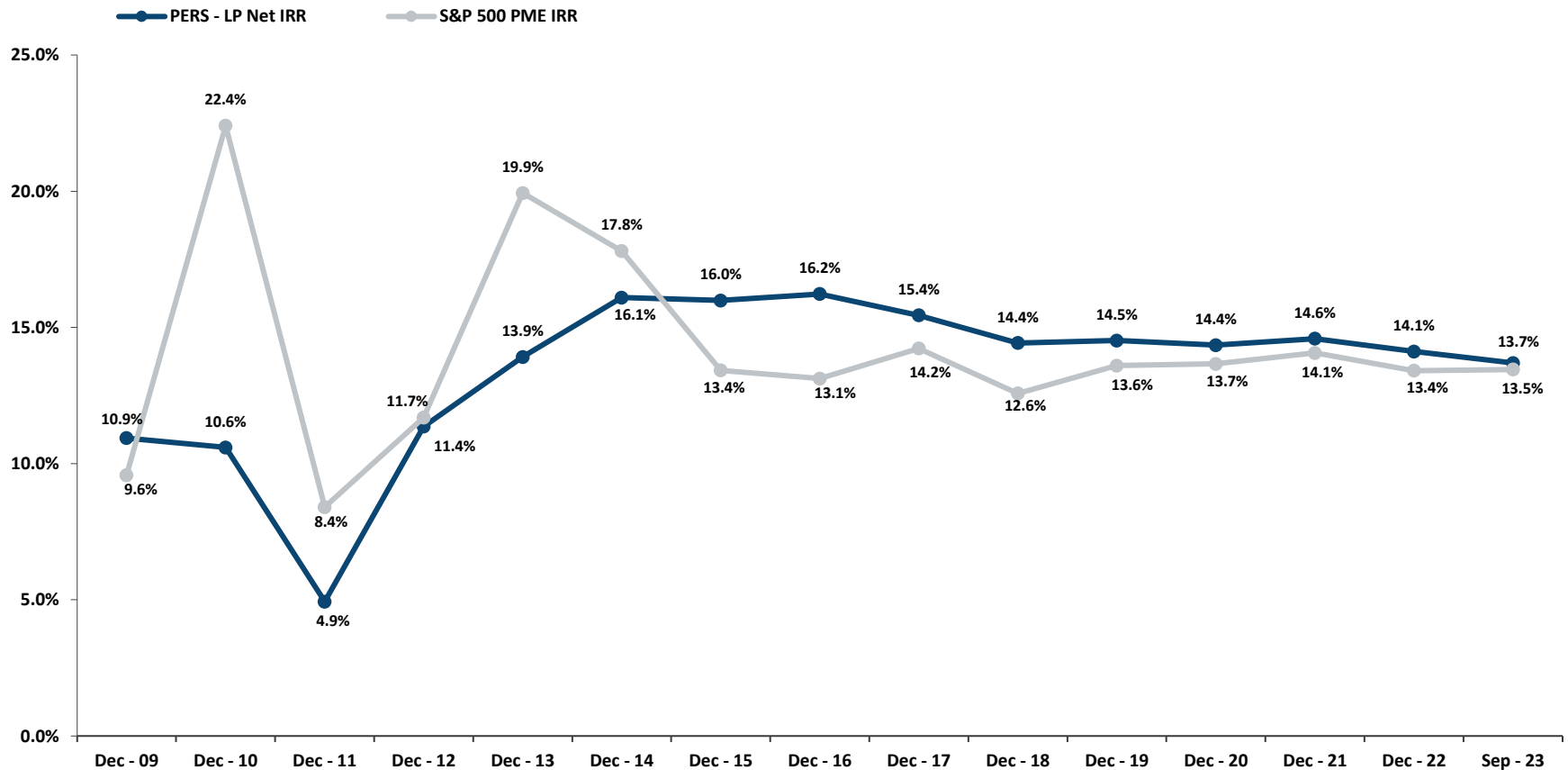


Valuations and cash flows are as of the respective dates, with December Program-related amounts corresponding to LP's share of amounts reported in the Program's respective audited financials. The September 30, 2023 Program (LP Level)-related amounts include a pro forma carried interest adjustment to account for the update of June 30, 2023 to September 30, 2023 valuations (i.e., will not foot to standard Program (LP Level) quarterly reporting, which reflects valuations on a quarter-lag to reporting date with cash flows through quarter-end).

**Past performance is not necessarily indicative of future results. No assurance can be given that any investment will achieve its objectives or avoid losses. Please see the slides following this presentation entitled "Summary of Endnotes."**

# 2009-1 SERIES PERS - LP NET IRR ANNUAL BENCHMARKING COMPARISON

The 2009-1 Series has outperformed the S&P 500 PME over the past nine years, with PERS - LP Net IRR outperformance of 23 bps as of September 30, 2023.

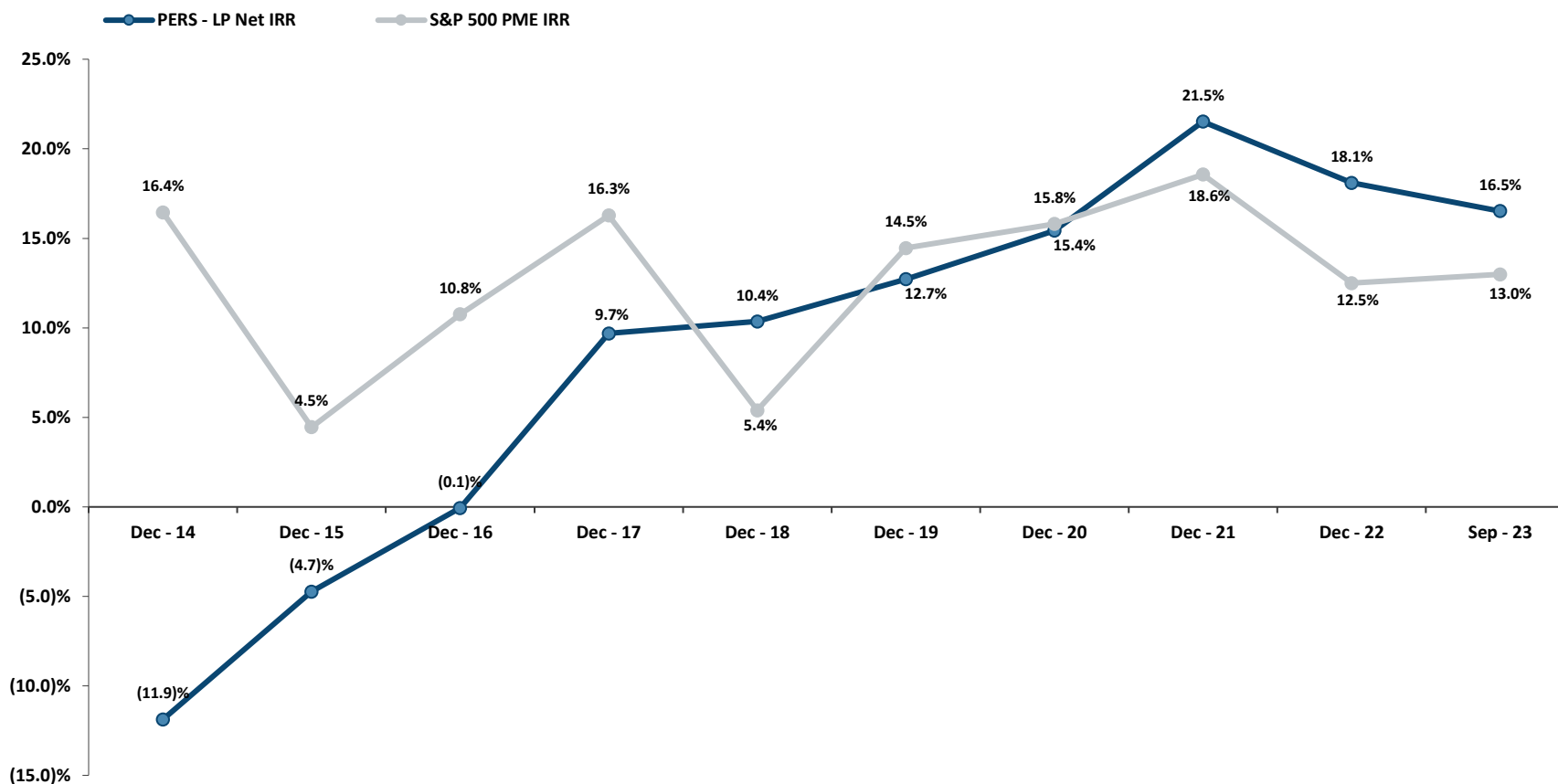


Valuations and cash flows are as of the respective dates, with December Program-related amounts corresponding to LP's share of amounts reported in the Program's respective audited financials. The September 30, 2023 Program (LP Level)-related amounts include a pro forma carried interest adjustment to account for the update of June 30, 2023 to September 30, 2023 valuations (i.e., will not foot to standard Program (LP Level) quarterly reporting, which reflects valuations on a quarter-lag to reporting date with cash flows through quarter-end).

Past performance is not necessarily indicative of future results. No assurance can be given that any investment will achieve its objectives or avoid losses. Please see the slides following this presentation entitled "Summary of Endnotes."

# 2014-1 SERIES PERS - LP NET IRR ANNUAL BENCHMARKING COMPARISON

The 2014-1 Series has outperformed the S&P 500 PME over the past three years, with PERS - LP Net IRR outperformance of 353 bps as of September 30, 2023.

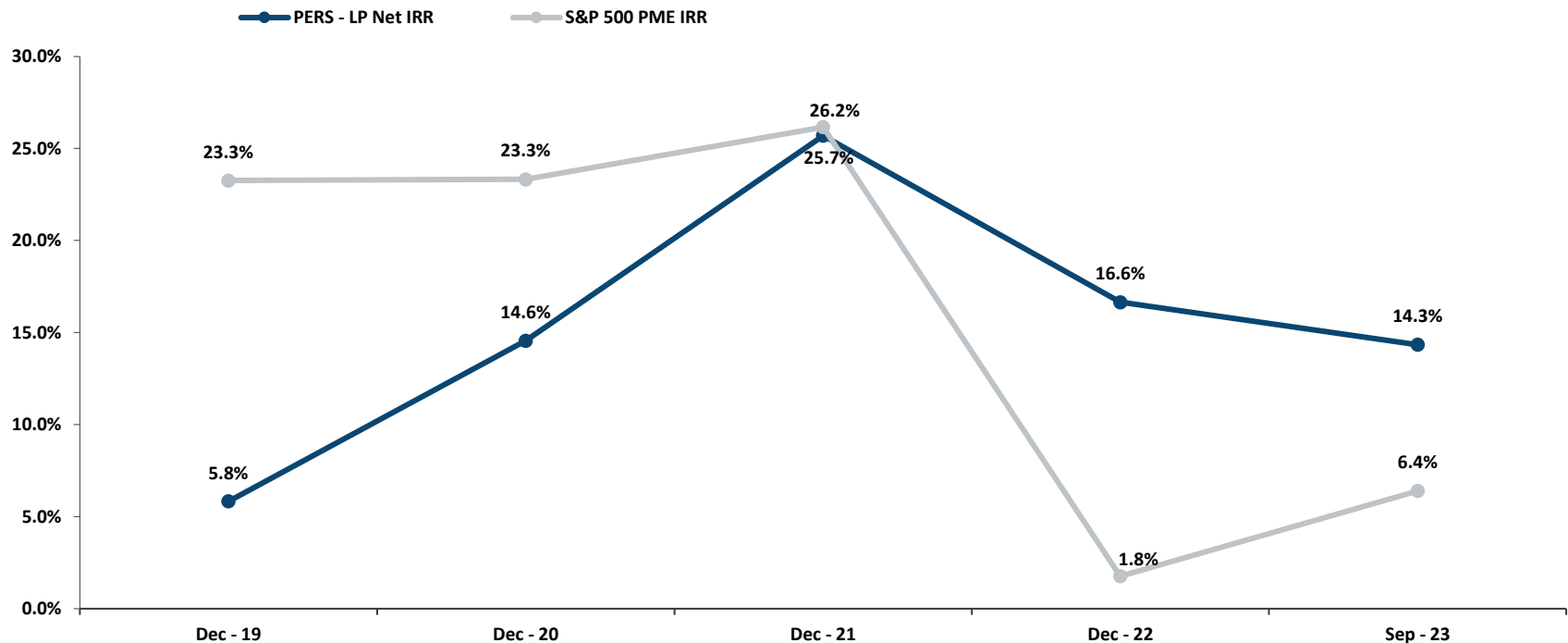


Valuations and cash flows are as of the respective dates, with December Program-related amounts corresponding to LP's share of amounts reported in the Program's respective audited financials. The September 30, 2023 Program (LP Level)-related amounts include a pro forma carried interest adjustment to account for the update of June 30, 2023 to September 30, 2023 valuations (i.e., will not foot to standard Program (LP Level) quarterly reporting, which reflects valuations on a quarter-lag to reporting date with cash flows through quarter-end).

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# 2018-1 SERIES PERS - LP NET IRR ANNUAL BENCHMARKING COMPARISON

The 2018-1 Series has outperformed the S&P 500 PME over the past two years, with PERS - LP Net IRR outperformance of 794 bps as of September 30, 2023.



Valuations and cash flows are as of the respective dates, with December Program-related amounts corresponding to LP's share of amounts reported in the Program's respective audited financials. The September 30, 2023 Program (LP Level)-related amounts include a pro forma carried interest adjustment to account for the update of June 30, 2023 to September 30, 2023 valuations (i.e., will not foot to standard Program (LP Level) quarterly reporting, which reflects valuations on a quarter-lag to reporting date with cash flows through quarter-end).

**Past performance is not necessarily indicative of future results. No assurance can be given that any investment will achieve its objectives or avoid losses. Please see the slides following this presentation entitled "Summary of Endnotes."**

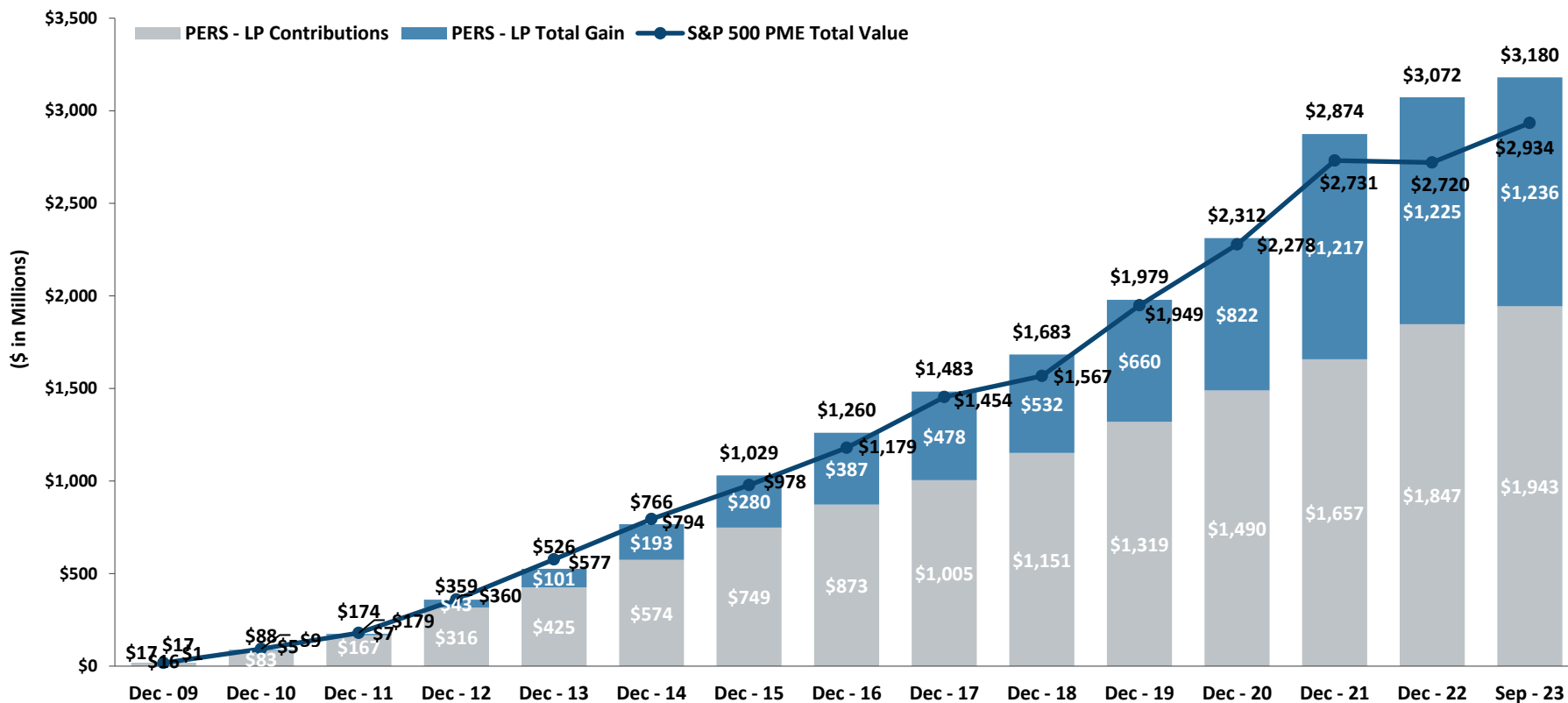
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Appendix 1

## **PME TOTAL VALUE COMPARISON - ALTERNATE SLIDE**

# PROGRAM (PERS - LP LEVEL) ANNUAL TOTAL VALUE VS. S&P 500 PME TOTAL VALUE


As of September, 30, 2023, the Program (PERS - LP Level) has outperformed the S&P 500 PME by \$246 million from a total value perspective.



1. LP Total Value is equal to LP distributions plus LP NAV and LP Total Gain is equal to LP Total Value minus LP Contributions as of the respective dates.

Valuations and cash flows are as of the respective dates, with December Program-related amounts corresponding to LP's share of amounts reported in the Program's respective audited financials. The September 30, 2023 Program (LP Level)-related amounts include a pro forma carried interest adjustment to account for the update of June 30, 2023 to September 30, 2023 valuations (i.e., will not foot to standard Program (LP Level) quarterly reporting, which reflects valuations on a quarter-lag to reporting date with cash flows through quarter-end)."

Past performance is not necessarily indicative of future results. No assurance can be given that any investment will achieve its objectives or avoid losses. Please see the slides following this presentation entitled "Summary of Endnotes."



Appendix 2

# NOTES AND DISCLOSURES



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# SUMMARY OF ENDNOTES

## Notes and Disclosures (1 of 2)

### Universal

- If applicable, Investment Returns (Gross Returns) are presented net of fees and expenses charged at the investment level but do not reflect the fees, expenses, and carried interest charged by the relevant GCM Grosvenor Fund/Program to its investors/participants (i.e., gross/net performance). Unless otherwise indicated, Investment Returns do not take into account the application of leverage. Additional information is available upon request.
- If applicable, Investor Net (Limited Partner “LP” net) Returns are presented net of all fees, expenses, and carried interest (i.e., net/net performance).
- If applicable, pie charts reflecting remaining value are based on the Fund/Program’s percentage of ownership in the investments. Remaining value is by the stated valuation date and is reflected gross of both investment and Fund/Program-related management fees, expenses and carried interest, if applicable.
- If applicable, performance of predecessor investments and/or funds reflected herein may not represent GCM Grosvenor’s returns for such investments/funds. Information regarding predecessor investments and/or funds sourced from reports and/or other materials provided by managers/sponsors.
- If applicable, investments may be held indirectly through special purpose vehicles.
- If applicable, for secondary investments, commitments to the investments represent the purchase price paid plus unfunded commitment at the time of purchase.
- Amounts for any foreign-denominated investments, if applicable, have been converted to the Fund/Program’s currency as of period-end.
- If applicable, GCM Grosvenor’s investment characteristics and related definitions are sourced from IHS Markit via iLevel or by The Burgiss Group. Data from iLevel is sourced by GCM Grosvenor or IHS Markit. Additional information is available upon request.

### Fund/Program Summary

- Capital Called from Investor(s) – Includes amounts called for investments, Fund/Program expenses and management fees, if applicable.
- Commitment(s) – The dollar amount the fund has committed to a specific holding or GCM Grosvenor portfolio, if applicable.
- Distributions to Investor(s) – Represents total proceeds returned to investor(s) (including callable and non-callable returns of capital) and withholding taxes paid to taxing authorities on behalf of investor(s), if applicable.
- Distributions/Realized Proceeds – If applicable, represents callable and non-callable proceeds received from the investments. For co-investments, amounts may be inclusive of escrow proceeds receivable, if applicable.
- Fund Size – As of the previous quarter-end or earlier and reflect the aggregate fund size which may include additional investment vehicles to which the Fund/Program may not have commitments, if applicable.
- Funded Amount/Invested Capital/Contributions – Represents amounts funded to the investments plus capitalized expenses paid. A portion of the funded amount may not reduce the Fund/Program’s remaining commitments to the investments, if applicable.

# SUMMARY OF ENDNOTES

## Notes and Disclosures (2 of 2)

- Investment IRR/Gross IRR – If applicable, Investment IRR is calculated using all investment-related cash flows through and the reported value of investments as of the stated valuation date. Because GCM Grosvenor management fees, allocable expenses and carried interest, as applicable, are recorded at the Fund/Program level and not at the investment level, such fees and expenses are excluded from the calculation of individual investment returns. The Investment IRR for all performance information with less than 365 days of cash flows has not been annualized. The Investment IRR for all performance information with more than 365 days of cash flows has been annualized. N/A is reflected for Investment IRR if there is no cash flow activity as of the date referenced or earlier. N/M is reflected for Investment IRR if GCM Grosvenor believes the cash flow activity is not meaningful as of the date referenced.
- Investment Multiple/Gross Multiple/Gross MOIC/TVPI – Represents the Total Value divided by the Funded Amount, if applicable.
- Investor Net IRR/LP Net IRR – If applicable, the Investor Net IRR returns are based on the actual cash flows to the investor. The Investor Net IRR includes management fees, allocable expenses and carried interest, if applicable, at the Fund/Program level.
- Investor Net Multiple/LP Net Multiple/LP Net TVPI – If applicable, Investor Net Multiple is calculated as total proceeds distributed to the Investor plus the Investor's ending value divided by the Investor's total contributions. The Investor Net Multiple includes management fees, allocable expenses and carried interest at the Fund/Program level.
- Other Fund Net Assets/(Liabilities) – If applicable, represents all other assets and/or liabilities other than investments, consisting of cash balance, accrued management fees, accrued Fund/Program expenses and/or any other receivable and payables, where applicable, as of the period end.
- Reported Value/Adjusted Value/Net Asset Value "NAV" – Represents the fair value reported by the funds as of the stated valuation date, adjusted for cash flows through period end, where applicable, pursuant to GCM Grosvenor's valuation policy. If applicable, for co-investments, the fair value is determined by the General Partner/Investment Manager as of the stated valuation date pursuant to GCM Grosvenor's valuation policy, if applicable.
- Total Value – Represents the Reported Value plus Distributions, if applicable.
- Valuation Date – If applicable, represents the valuation date of the respective investments reflected herein. If applicable, charts that are inclusive of both co-investments and underlying holdings of fund investments may reflect a co-investment valuation date as of the fund investment valuation date (i.e., on a quarter lag).
- Vintage Year – If applicable, represents the year the specific holding acquired its first asset. For all secondaries and co-investments, the vintage year represents the year GCM Grosvenor committed to the Deal. For GCM Grosvenor portfolios the vintage year represents the year the portfolio made its first commitment or purchased its first asset.

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# TARGET RETURNS, FORWARD LOOKING ESTIMATES, AND RISK PARAMETERS

## Notes and Disclosures

**Target Returns, Forward Looking Estimates, and Risk Parameters:** Target returns, forward looking estimates, and risk parameters are shown to illustrate the current risk/return profile of how the fund or investment is/will be managed. **Target returns, forward looking estimates, and risk parameters do not forecast, predict, or project any fund, investment, or investor return.** It does not reflect the actual or expected returns of any investor, investment, GCM fund, or strategy pursued by any GCM fund, and does not guarantee future results.

Target returns, forward looking estimates, and risk parameters:

- are based solely upon how the fund or investment is expected to be managed including, but not limited to, GCM Grosvenor's current view of the potential returns and risk parameters of the investment, investments in the GCM fund, or strategy pursued by a GCM fund;
- do not forecast, predict, or project the returns or risk parameters for any investor, investment, GCM fund, or any strategy pursued by any GCM fund; and
- are subject to numerous assumptions including, but not limited to, observed and historical market returns relevant to certain investments, asset classes, projected cash flows, projected future valuations of target assets and businesses, other relevant market dynamics (including interest rate and currency markets), anticipated contingencies, and regulatory issues.

Changes in the assumptions will have a material impact on the target returns, forward looking estimates, and risk parameters presented. Target returns and forward looking estimates are generally shown before fees, transactions costs and taxes and do not account for the effects of inflation. Management fees, transaction costs, and potential expenses may not be considered and would reduce returns and affect parameters. **Target Returns And Risk Parameters May Not Materialize.**

# PUBLIC MARKETS EQUIVALENT

## Notes and Disclosures

Public Market Equivalent ("PME") returns have been calculated using the Long Nickels PME methodology. The total return prices of the index have been applied; all prices include the impact of dividends and interest and are gross of any tax withholding. The public market cash flows are generated by simulating buy and sell decisions in the public index using actual investment transactions made by GCM Grosvenor-managed programs. Investments made by a GCM Grosvenor-managed program translates into buying shares in the public index on the same date and at the closing index price on such date. Distributions represent the selling of shares in the public index at the closing index price and on such date. The residual value of the equity in the public markets is calculated by multiplying the remaining shares still invested in the public index on the terminal value date or on the liquidation date of the GCM Grosvenor-managed program by the index price on such date. The number of remaining public shares depends on the GCM Grosvenor-managed program's investment cash flows as well as the index performance and in some situations the share balance can become negative. This is a result of a well-known shortcoming associated with the Long Nickels PME methodology which is that it incorrectly uses the private equity fund's distributions. By using these distributions, the calculation: (1) overstates the amount sold by the hypothetical public market portfolio and (2) incorporates the private equity fund's gains, which are included in the distributions, into the public market's performance calculation. (see for example: <http://blog.bison.co/2014/09/22/problem-with-long-nickels-pme/>)

Negative share balance outcomes are a known shortcoming of the Long Nickels PME methodology and depending on their severity can lead to questionable results. In these cases, it is a reasonable conclusion that the high level of distributions are a strong indication that the GCM Grosvenor-managed program has outperformed the index. The returns in the table shown includes instances where the ending index share balance became negative; however, the Long Nickels methodology produced a calculable result so the results are included here. Returns marked as "N/M" (Not Meaningful), represent instances where the ending index share balance became highly negative; in these cases, the Long Nickels PME methodology did not produce a calculable result due to the resulting highly negative net asset value and, therefore, the results are listed as not meaningful.

To address this Long Nickels methodology shortcoming and to provide an alternative point of reference, GCM Grosvenor has also calculated the above PMEs using a GCM Grosvenor proprietary methodology which can be provided separately upon request.

Index Full Name	S&P 500 Index
Data Provider	Bloomberg
Provider Code	SPXT Index
Price Type	Total Return Gross
Price Time	Last Price

# GCM GROSVENOR

## Notes and Disclosures (1 of 2)

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# GCM GROSVENOR

## Notes and Disclosures (2 of 2)

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April 23, 2024



## **Mississippi Public Employees Retirement System**

GCM Grosvenor Diversified  
Partners, L.P. – 2024 Series

The investment manager organizations contained herein have submitted information to Callan regarding their investment management capabilities, for which information Callan has not necessarily verified the accuracy or completeness of or updated. The information provided to Callan has been summarized in this report for your consideration. Unless otherwise noted, performance figures reflect a commingled fund or a composite of discretionary accounts. All written comments in this report are based on Callan's standard evaluation procedures which are designed to provide objective comments based upon facts provided to Callan. The appropriateness of the candidate investment vehicle(s) discussed herein is based on Callan's understanding of the client's portfolio as of the date hereof. Certain operational topics may be addressed in this investment evaluation for information purposes. Unless Callan has been specifically engaged to do so, Callan has not conducted due diligence of the operations of the candidate or investment vehicle(s), as may be typically performed in an operational due diligence evaluation assignment. The investment evaluation and any related due diligence questionnaire completed by the candidate may contain highly confidential information that is covered by a non-disclosure or other related agreement with the candidate which must be respected by the client and its representatives. The client agrees to adhere to the conditions of any applicable confidentiality or non-disclosure agreement. Important Disclosures regarding the use of this document are included at the end of this document. These disclosures are an integral part of this document and should be considered by the user.

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GGM Grosvenor Diversified Partners, L.P. – 2024 Series

Strategy

Asset Class	Private Equity
Strategy Type	Primaries (90%), Co-investments (10%)
Currency (Fund)	USD
Control Rights	Various
Industry/Sector	All Sectors
Geography	North America: 70-80%, Europe: 10-20%, Asia/Pacific: 0-10%

Terms

Investment Period (Yrs.)	3
MPERS Commitment (\$M)	\$360
GP Commitment	1%

Manager

Headquarters	Chicago
Leadership	Michael Sacks (CEO), Jonathan Levin (President), Paul Meister (Vice Chairman)
Supervising Regulatory Body	SEC

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## Executive Summary

### Background

Mississippi Public Employees' Retirement System (MPERS) initiated its private equity program in 2008 by hiring two private equity fund-of-funds managers to implement discretionary fund-of-one (FOO) vehicles. The FOOs are a form of separate account, using a limited partnership structure in which MPERS is the sole limited partner and the manager is the general partner. Each manager has formed a master limited partnership into which ongoing commitments can be added, which are referred to as Series.

The two firms hired by MPERS were Credit Suisse Customized Fund Investment Group (CFIG), and Pathway Capital Management (Pathway or PCM). CFIG has since changed ownership and is now GCM Grosvenor Capital Management Private Markets (Grosvenor or GCM). Since its inception, MPERS has invested in three Series with each manager. Total commitments to date have been \$5.17 billion, with Grosvenor allotted \$2.05 billion, and Pathway \$3.12 billion.

Grosvenor's most recent Series ("2018 Series") is approaching full deployment, and MPERS is evaluating a reinvestment with Grosvenor in a new 2024 Series commitment. MPERS has requested that Callan provide a review of Grosvenor.

### Evaluation Process

Callan has been actively monitoring Grosvenor for many years. Callan has several clients in common with Grosvenor and is in regular communication with the firm, including formal update meetings, and ongoing search processes.

The 2024 Series expects to make 10% allocation to the co-investment commingled fund, GCM Grosvenor Co-investment Opportunities Fund III, L.P. ("GCF III").

Specific to the proposed Grosvenor's 2024 Series re-up, Callan collected current information on Grosvenor's organization, the proposed investment strategy, and historical performance including MPERS-specific information as well as commingled co-investment funds that the 2024 Series will allocate to. The main section of this report reviews the firm, strategy, and historical performance information. Callan benchmarks Grosvenor's historical returns compared to the Burgiss All Private Equity, All Regions peer group.

### Reinvestment Summary

Grosvenor is a large, stable, and growing organization with a global footprint that has provided MPERS with competitive returns. Grosvenor's largest client base is pension plans. The Firm's private equity investment team has been stable. MPERS Staff and Callan concur that a reinvestment with Grosvenor is appropriate.

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## Summary of Key Findings

### Merits

- **GCM Grosvenor's Scaled Platform and Experience:** Grosvenor is a large and experienced private equity investor with \$29 billion in AUM across primary, secondary, co-investment, and direct investment strategies and products. The firm's private equity team has 54 professionals, including 31 senior professionals, across six offices globally. The private strategy group has a track record of 24 years being founded in 1999.
- **Consistent Performance of Prior MPERS' FOO Vehicles:** The three prior fund of one vehicles managed by Grosvenor on behalf of MPERS' have generally performed well. Most prior vehicles rank in the second quartile in terms of net IRR and net TVPI.
- **Core, Diversified Private Equity Exposure:** GCM Grosvenor's best idea primary portfolio has been constructed with diversified private equity funds centered around middle market buyout funds augmented with upper middle market buyout and smaller and regional focused lower middle market buyout funds in the U.S. The portfolio is further diversified with Western European buyouts as well as special situations funds.

### Selected Considerations

- **Special Situations Investments' Higher Loss Ratio:** GCM Grosvenor has made 20 primary fund investments to special situations funds so far in MPERS' FOO Series, and five of them are marked below cost with an average gross TVPI of 0.69x. The loss ratio for the special situations funds is 25% in terms of the number of funds, and 8% in terms of funded commitments. With this higher loss ratio, the gross TVPI of the Special Situations strategy is low at 1.25x.

#### Mitigants

- Buyout fund investments have demonstrated a higher return in aggregate, with a gross TVPI of 1.81x, offsetting the losses from Special Situations funds. Venture/Growth investments have also generated gross TVPI of 1.91x in aggregate, also helping to offset poor Special Situations performance.
  - The primary exposure is expected to be with middle market buyout strategies in North America, and special situations funds only represent a small subset of the portfolio.
- **Grosvenor Co-Investment Fund I's Underperformance:** Grosvenor's first co-investment commingled fund, GCF I, was a 2015 vintage fund that produced poor overall performance, ranking in the fourth quartile in terms of net IRR and net TVPI. GCF I experienced a high number of losses with seven investments marked below cost, resulting in a loss ratio of 27%.

#### Mitigants

- GCF I was a smaller fund, which forced an overly concentrated portfolio of co-investments. With the larger fund size of GCF II and III, the Firm is able to build a more diversified portfolio.
- Many of the losses in GCF I stemmed from idiosyncratic company risks that emerged as a result of the COVID-19 pandemic and were largely unavoidable according to GCM.
- Performance of GCF II, a 2018 fund, has been strong and ranks in the first quartile in terms of net IRR and net TVPI. GCF II currently has no investments marked below cost.

## Performance

### MPERS Fund of One Series

	GCM 2009 Series	GCM 2014 Series	GCM 2018 Series
Vintage Year	2008-2014	2012-2019	2018-2022
Commitment Amount	750	700	600
# Investments	39	37	31

#### LP Capital

Invested Capital	840	702	388
% Paid-In	112%	102%	65%
Realized	1,273	551	67
Unrealized Value	174	724	418
Total Value	1,447	1,276	485

#### Net Performance

<b>Net TVPI</b>	<b>1.72x</b>	<b>1.78x</b>	<b>1.25x</b>
Quartile Ranking	3 <sup>rd</sup>	2 <sup>nd</sup>	2 <sup>nd</sup>
<b>Net IRR</b>	<b>13.88%</b>	<b>16.86%</b>	<b>13.29%</b>
Quartile Ranking	2 <sup>nd</sup>	3 <sup>rd</sup>	2 <sup>nd</sup>
<b>Net DPI</b>	<b>1.52x</b>	<b>0.77x</b>	<b>0.17x</b>
Quartile Ranking	2 <sup>nd</sup>	2 <sup>nd</sup>	1 <sup>st</sup>

#### Losses

#	4	1	3
Loss Ratio	2.8%	1.2%	0.4%

\$ Millions

As of 09/30/2023.

Quartile ranking against the All Private Equity, All Regions Burgiss Database.

For the loss analysis of the 2018 Series, it excludes funds with 2022 vintages.

### Performance Commentary

#### 2009 Series

The series invested \$852 million across 39 primary fund investments over five years, with vintage years of the invested funds ranging from 2008 through 2014. The invested capital surpasses the commitment amount as a result of distributions that were recalled, and the percentage paid-in stands at 112% as of December 31, 2023, using the underlying funds' valuation as of September 30, 2023. There is always one quarter lag between the valuation of the Series and valuation of the underlying funds. The net TVPI is 1.72x and ranks in the third quartile, but the net IRR of 13.88% and net DPI of 1.52x

rank second quartile against the Burgiss private equity database. Three funds are liquidated as of September 30, 2023. Two of the buyout funds as well as two of venture/growth funds are marked above 3x TVPI while four of the special situations funds are marked below cost.

#### **2014 Series**

The series invested \$730 million across 37 primary fund investments over seven years, with vintage years of the invested funds ranging from 2012 through 2019. The invested capital surpasses the commitment amount as a result of distributions that were recalled, and the percentage paid-in is at 103% as of December 31, 2023, using the underlying funds' valuation as of September 30, 2023. The net TVPI of 1.78x and net DPI of 0.77x rank in the second quartile against the Burgiss private equity database, with the net IRR of 16.86% falling just below median. No funds are liquidated as of September 30, 2023. One buyout fund is marked above a 3x TVPI while one special situations fund is marked below cost.

#### **2018 Series**

The series invested \$422 million across 31 primary fund investments over five years, with vintage years of the invested funds ranging from 2018 through 2022. The paid-in is at 70% as of December 31, 2023, using the underlying funds' valuation as of September 30, 2023. The net TVPI of 1.25x and the net IRR of 13.29% rank second quartile, and the net DPI of 0.17x ranks first quartile against the Burgiss private equity database. Excluding the funds with 2022 vintage, one buyout fund is marked below cost and no fund is marked above 3x.

**Historically, MPERS is not an investor in the Co-investment Comingled Fund Series.**

*Co-investment Commingled Fund Series*

	<b>GCF I</b>	<b>GCF II</b>
Vintage Year	2015	2018
Commitment Amount	235	534
# Investments	16	23
Invested Capital	230	499
% Paid-In	98%	93%
Realized	157	328
Unrealized Value	157	751
Total Value	314	1,079
<b>Net Performance</b>		
<b>Net TVPI</b>	<b>1.25x</b>	<b>1.98x</b>
Quartile Ranking	4 <sup>th</sup>	1 <sup>st</sup>
<b>Net IRR</b>	<b>5.4%</b>	<b>30.50%</b>
Quartile Ranking	4 <sup>th</sup>	1 <sup>st</sup>
<b>Gross DPI</b>	<b>0.68x</b>	<b>0.66x</b>
Quartile Ranking	4 <sup>th</sup>	1 <sup>st</sup>
<b>Losses</b>		
#	7	0
Loss Ratio	27%	0%

\$ Millions

As of 9/30/2023

Quartile ranking against the Buyout, All Regions Burgiss database.

*Performance Commentary*

**GCF I**

It is a 2015 vintage, \$534 million fund. There are 16 deals in the Fund, and the investments were made from 2015 to 2018. The ticket size ranged from \$6 million to \$22 million, with the average ticket size being \$15 million. Six deals are realized, and 10 deals are remaining as of September 30, 2023. There are three realized loss deals and four deals marked below cost. One deal is marked above 3x but has not meaningfully offset the losses from the struggling seven deals. Losses come from three healthcare, two technology, one consumer, and one industrial business; many of which were affected by the COVID-19 pandemic.

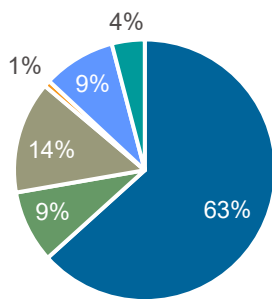
**GCF II**

It is a 2018 vintage, \$972 million fund. There are 23 deals in the Fund, and the investments were made from 2018 to 2021. The ticket size ranged from \$11 million to \$36 million, the average ticket size being \$23 million. Three deals have been realized, and 20 deals are remaining as of September 30, 2023. There are no deals marked below cost, and there are four deals marked above 3x. The industry sectors of the four high-performing deals are healthcare, technology, industrials, and materials.

## Organization and Team

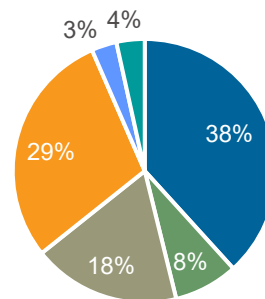
GCM Grosvenor was founded in 1971 as a hedge fund fund-of-funds firm and currently has total assets under management (AUM) of approximately \$77 billion of which \$54 billion are in private markets and \$22 billion are in absolute return strategies. Private markets strategies include private equity, infrastructure, real estate, private credit, and sustainability/impact. Grosvenor has approximately 538 employees with 177 investment professionals across both absolute return and private markets strategies.

Firmwide AUM by investor type  
(as of 12/31/2023)



- Pension
- Sovereign Entity
- Other
- Financial Institution
- Endowment / Foundation
- HNW/Family Office

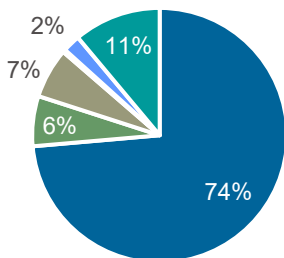
Firmwide AUM by strategy  
(as of 12/31/2023)



- Private Equity
- Real Estate
- Absolute Return Strategies
- Private Markets Opportunistic
- Infrastructure
- Longer-Duration Credit

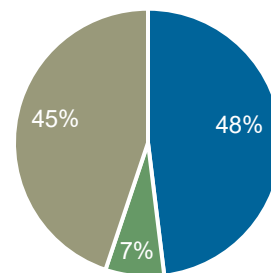
GCM Grosvenor Private Markets (GPM) is the private markets division of alternative investments manager GCM Grosvenor. GPM was founded in 1999 by Credit Suisse and called the Customized Fund Investment Group (CFIG) focusing on private equity manager-of-managers separate accounts. GCM Grosvenor acquired CFIG in 2014, rebranded the team as GCM Grosvenor Private Markets, and expanded the GPM's original private equity product lines to include other private investment strategies, including real estate, infrastructure, and private credit. The additional asset classes are separately staffed, and the dedicated private equity team continues to focus exclusively on its original private equity strategy.

Private Markets AUM by investor type  
(as of 12/31/2023)



- Pensions
- Financial institutions
- HNW
- SWF
- Endowment/Foundation
- Other

Private Markets AUM by strategy  
(as of 12/31/2023)



- Primary
- Secondary
- Co-Investments/Direct



GPM's private equity platform has approximately \$29 billion in AUM across primary, secondary, co-investment, and direct investment strategies and products. The firm's private equity team has 56 professionals of which 31 are senior professionals. GPM has senior private equity investment professionals in 6 offices globally. GPM manages private equity separate accounts, primary fund-of-funds, secondary funds, co-investment funds, and diverse manager funds. Within private equity, the team has gradually established separately staffed verticals for primary, secondary, and co-investments. However, senior professionals retain some cross-strategy involvements given that secondary and co-investment transactions have their basis in primary partnership relationships.

#### *Ownership*

The firm became publicly traded (NASDAQ: GCMG) in 2020 by merging with a Cantor Fitzgerald-sponsored SPAC. Senior GCM management continues to own the majority of GCM Grosvenor's equity with the remainder held by the public.

#### *Investment Team*

The private equity investment team consists of 54 investment professionals. The team has 31 senior professionals (Managing Director, Executive Director, and Principal) supported by 25 Analysts and Associates. Private equity team members are located in New York, Chicago, Charlotte (NC), Austin (TX), London, and Hong Kong.

20 of these investment professionals are dedicated to co-investments.

#### **Key Professionals**

<b>Professional</b>	<b>Title</b>	<b>Years w/ Firm</b>	<b># Investments</b>
Michael Sacks	Chairman and CEO	33	36
Paul Meister	Vice Chairman	33	33
Jonathan Levin*	President	13	21
Pamela Bentley	Chief Financial Officer	3	31
Sandra Hurse	Chief Human Resources Officer	6	26
Eric Levin	Chief Technology Officer	4	25
Burke Montgomery	General Counsel	20	23
Frederick Pollock*	Chief Investment Officer	9	20
Stacie Selinger	Head of Investor Relations	9	18
Lee Brashear*	Managing Director (Co-investment)	17	20
Elizabeth Browne	Managing Director	1	16
Luis Cabrera	Managing Director (Secondary)	8	19
Stephen Cammock	Managing Director	14	14
Brad Hanan	Managing Director (Secondary)	7	20
Aris Hatch	Managing Director	7	25
Jessica Holsey	Managing Director	10	11

Marc Iyer	Managing Director	14	24
Derek Jones*	Vice Chairman	17	37
Corey LoPrete	Managing Director	16	23
Jason Metakis*	Managing Director (Co-investment)	14	24
Kevin Nickelberry	Managing Director (Co-investment)	4	29
Thomas Rest, CFA	Managing Director	15	35
Mayur Shah	Managing Director (Co-investment)	16	20
Brian Sullivan*	Managing Director (Secondary)	9	27
Bernard Yancovich*	Managing Director	24	29

Source: Grosvenor and Callan analysis

\* Denotes Private Equity Investment Committee member

### Investment Team Turnover

Senior private equity investment team, by Year	# of Joiners	# of Leavers
2019	0	3
2020	1	2
2021	1	0
2022	1	2
2023	0	4
<b>Total</b>	<b>3</b>	<b>11</b>

Source: GCM Grosvenor and Callan analysis

There have been 11 senior departures since 2019, which Callan views as a higher-than-expected, but acceptable, level for a team of 31 senior professionals and allows for the advancement of successful junior and mid-level team members. Junior professional turnover is expected as the Analyst program is not intended to provide permanent positions, so there is an inherent departure rate. The senior departures include four managing directors, one Director/Partner, and six principals; seven of the senior departures were below the Managing Director level.

A recent notable departure was Amy Wierenga, who was GCM's Chief Risk Officer and was a member of the Firm's private equity investment committee. GCM noted she left the Firm to pursue another opportunity at a bank, and that her role was more applicable to public investments and the hedge fund business. Following her departure, GCM segmented the ICs between the private equity and real assets strategies, which previously had the same investment committee.

There was also one senior professional departure on the co-investment team, Andrew Sherriff, who was an Executive Director and left to relocate his family, ultimately joining a family office platform.

### Compensation

GCM seeks to maintain compensation programs that are industry-competitive and designed to foster organizational stability and retention. Private equity compensation generally includes a salary, discretionary bonus, and participation in carried

interest. Annual raises and bonuses are related to an employee's individual performance, the performance of their department, and GCM's firm-wide performance.

Carried interest is related to the specific product or funds to which the investment professionals are assigned, as well as participation in a broader pool that is contributed to by GCM's investment activities broadly. The broader carry pool is intended to promote firm-wide collaboration and cohesion. Carried interest vests over four years with a 20% hold-back structure intended to foster retention. Carry interest is awarded based on performance, seniority, tenure, and broader contribution to GCM's business.

In addition to the above compensation methods, senior professionals may also participate in deferred compensation programs as well as the firm's profits.

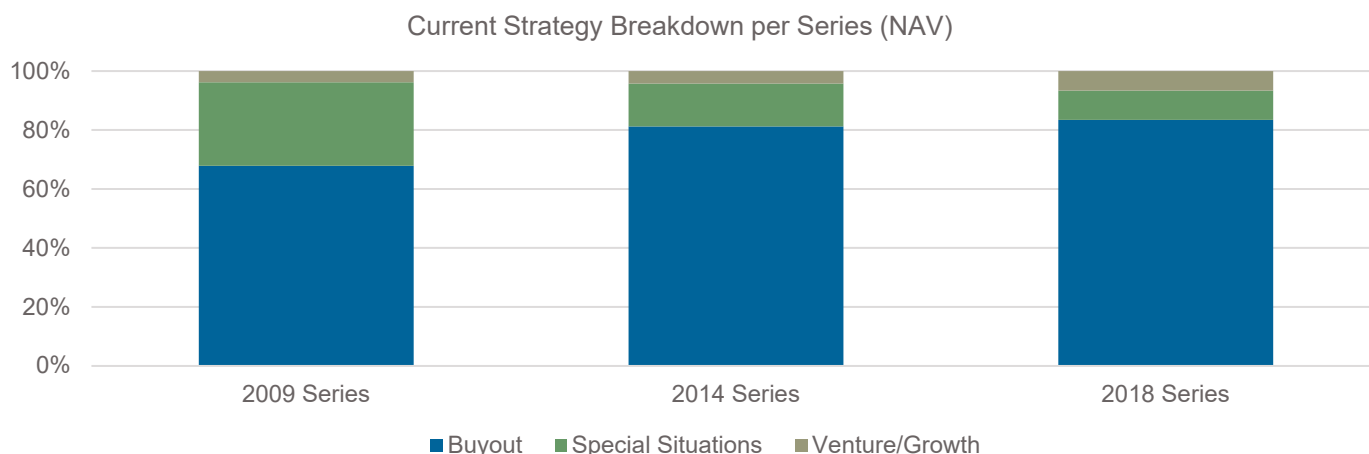
## Investment Strategy

The model portfolio offered by Grosvenor represents the same portfolio strategy that was implemented in the GCM Grosvenor Series 2009, 2014, and 2018 fund-of-one (FOO) vehicles. MPERS possesses the ability to make strategy weighting adjustments to the recommended FOO portfolio; however, Callan recommends that MPERS select Grosvenor's model portfolio since it represents Grosvenor's best ideas/firm strengths.

Prior FOO vehicles had investment periods ranging from five to seven years, however, the 2024 Series is expected to have a three-year investment period, so that MPERS can adjust commitment amounts to the FOO more nimbly. Furthermore, in addition to primary fund investments, the 2024 Series will commit 10% of capital to co-investment commingled fund.

The FOO is expected to be focused on buyout partnerships, with opportunistic allocations to venture/growth, and special situations funds. The current strategy breakdown of NAV per Series is shown below. 2009 Series had a higher allocation to special situations, however, the weight towards special situations will be reduced in the 2024 Series as MPERS launched its' private credit program in 2023. While Grosvenor will continue to allocate to special situations strategies, the Series will not allocate to funds where most investments are credit instruments.

### NAV (%) by Strategy, as of 9/30/2023



### Commitment (%) and TVPI by Sub-Strategy, as of 9/30/2023

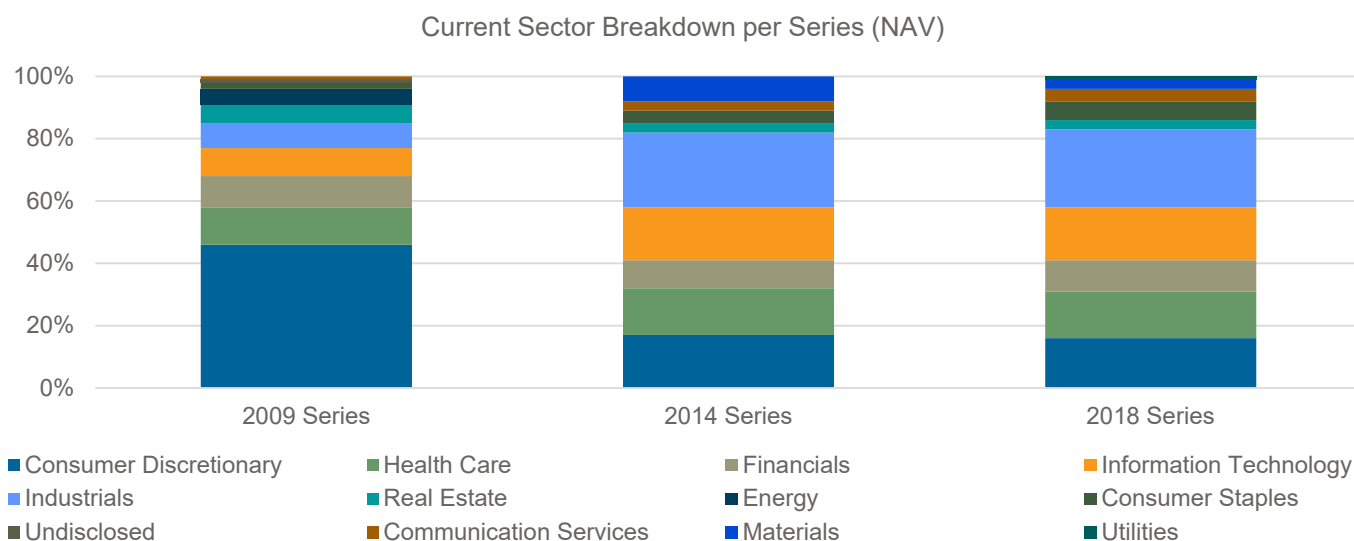
	2009 Series		2014 Series		2018 Series	
	% Invested	Gross TVPI	% Invested	Gross TVPI	% Invested	Gross TVPI
Buyout	68%	1.98x	81%	1.92x	83%	1.30x
Venture/Growth	4%	2.77x	4%	1.81x	7%	1.14x
Special Situations	28%	1.18x	15%	1.37x	10%	1.28x

Source: GCM Grosvenor and Callan analysis.

### Sector Allocation

Grosvenor will invest across various industry sectors via investing in generalist as well as sector specialist funds. The current sector breakdown of NAV per Series is shown below. The 2009 Series currently has an overweight to the consumer discretionary sector, but that is due to many portfolio companies having been exited as only 11% of total value is currently unrealized. Post-COVID-19, a disproportional number of consumer discretionary companies remain in the portfolio. The 2014 and 2018 Series portfolios are well diversified with the largest sector allocation being industrials at 24% for the 2014 Series and 25% for the 2018 Series. There is 5% energy sector exposure in the 2009 Series, but there is none in the 2014 and 2018 Series.

#### NAV (%) by Sector, as of 9/30/2023



#### Attribution by Fund Sector, as of 9/30/2023

	2009 Series		2014 Series		2018 Series	
	% Invested	Gross TVPI	% Invested	Gross TVPI	% Invested	Gross TVPI
Generalist	25%	1.95x	45%	1.75x	47%	1.41x
Consumer	10%	2.43x	6%	1.93x	5%	0.94x
Financial	4%	2.03x	4%	2.38x	-	-
Healthcare	4%	1.85x	3%	0.58x	3%	1.23x
Industrial	10%	1.75x	8%	1.81x	-	-
Technology	5%	2.28x	7%	1.83x	7%	1.05x
Technology/Healthcare	3%	2.38x	7%	3.03x	7%	1.23x
TMT	3%	2.16x	-	-	-	-
Energy	6%	1.05x	-	-	-	-
Real Estate	-	-	-	-	4%	1.49x

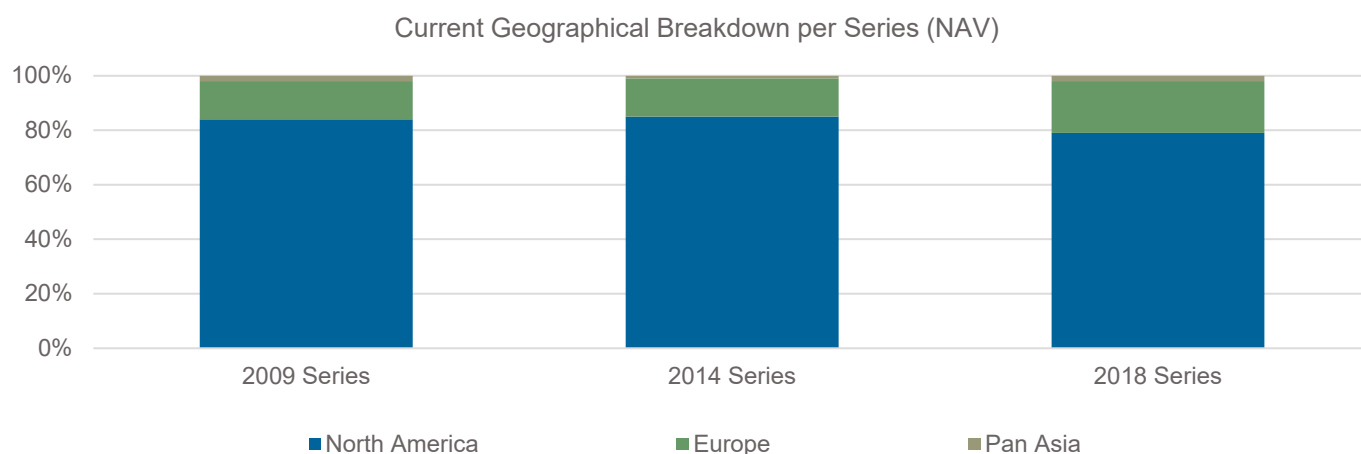
European Buyout	5%	2.11x	8%	1.82x	16%	1.16x
Special Situations	17%	1.19x	13%	1.55x	12%	1.21x
Credit	8%	1.30x	-	-	-	-

Source: GCM Grosvenor and Callan analysis.

### Country/Regional Allocation

The majority of capital will be allocated to U.S. middle-market buyout managers, particularly those that are sector specialists or regionally focused. Grosvenor defines the middle market as companies whose enterprise value is less than \$1.5 billion. International exposure is primarily in Western Europe, and in Europe, Grosvenor prefers regionally focused managers or country-specific managers that invest across multiple industry sectors. It is expected that international exposure will constitute 20% of the portfolio. GCM does not intend to allocate any portion of the FOO to emerging countries. The current geographical breakdown of NAV per Series is shown below. The highest international exposure is at 21% of NAV for the 2018 Series portfolio. Pan-Asian exposure is 1-2% across the portfolio and very limited. Grosvenor does not intend to allocate to China-based funds for the foreseeable future.

### NAV (%) by Geography, as of 9/30/2023



### Co-Investment Strategy

GCF III will seek to invest in 20-30 deals. Most of the deals are expected to be \$500 million and above in enterprise value. Grosvenor's co-investment strategy runs through primary relationships the firm has built. Most opportunities are sourced from the Firm's existing primary GP relationships, and although some co-investment opportunities may come from non-primary funds, they would require a blessing from the primary team. One of the examples noted by GCM was a co-investment alongside Butterfly Equity. GCF III invested in Butterfly Equity's consumer staple company, Milk Specialties Global. Grosvenor has not made a primary commitment in a Butterfly Equity funds, as part of their mandate is focused on restaurants, to which Grosvenor is trying to avoid having establishing exposure. The co-investment team has seen an average of 300 deals a year for the last five years and closes around five deals a year, which is 1.7% of the total deal flow. The team favors non-cyclical businesses, and the ticket size typically ranges from \$10-30 million. The ticket size is determined by the portfolio balance, and not based on conviction. Similar to the primary portfolio, GCF III intends to diversify sector exposure.

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## Operational Due Diligence

### Accounting/Finance

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Chief Financial Officer

Pamela Bentley

Overview of the accounting and finance team

The Finance Department is comprised of more than 150 professionals as of January 1, 2023. The Department contains the following teams:

**Fund Accounting and Analysis:** The Fund Accounting and Analysis Team is responsible for providing full-service administration capabilities and customized solutions across all investment verticals. They are responsible for comprehensive account and performance reporting for GCM Grosvenor funds, including oversight of the third-party administrator, and analysis of underlying investments as an extension of the operational due diligence program.

**Operational Due Diligence:** The Operational Due Diligence Team is responsible for evaluating the operational and internal control structure of the managers of prospective investments prior to investment. The team also monitors approved investments and their managers from an operational perspective after an investment has been made.

**Treasury:** The Treasury Team is responsible for executing and verifying cash movements, performing cash flow monitoring, managing short-term cash holdings, managing brokerage banking relationships, performing counterparty risk management and oversight of treasury activities of the third-party administrator.

**Investment Implementation:** The Investment Implementation Team is responsible for facilitating launches, restructures, and transition services for investment products, executing investment decisions through robust compliance-driven processes and analyzing liquidity of underlying investments to support portfolio management decision-making process.

**Valuation:** The Valuation Team is responsible for independent review and oversight of the periodic valuation process for all portfolio investments across GCM Grosvenor, to ensure consistency in valuation methodology and presentation. They also liaise with the Valuation Committee to determine the fair value of investments.

**Investor Operations:** The Investor Operations Team is responsible for oversight and coordination of client onboarding and investor record maintenance. They also prepare and issue client reporting and administer client facing technology to support efficient and timely report delivery.

	<p><b>Corporate Accounting:</b> The Corporate Accounting Team is responsible for SEC reporting, firm-wide financial reporting and accounting, billing and collection, accounts payable, carried interest administration and treasury functions.</p> <p><b>Tax:</b> The Tax Team is responsible for oversight and coordination of tax compliance, tax provisions and tax controversy for all entities managed across each investment vertical. They also consult across multiple disciplines including investment structuring, operational due diligence support, FACTA/CRS compliance, client correspondence and support and tax planning.</p> <p><b>Financial Planning &amp; Analysis:</b> The FP&amp;A team is responsible for all aspects of budgeting and forecasting for the firm as well as supporting strategic decisions.</p>
Fund Administrator	SEI Global Services, Inc.
Custodian/Bank	Bank of New York Mellon
Fund Auditor	PricewaterhouseCoopers, LLC
Overview of cash movements	<p><b>Capital Calls from Investors</b></p> <p>Capital calls from investors generally result from new underlying investment opportunities, follow-on investment opportunities, and/or expenses or management fees to be paid. When investor capital is required, GCM Grosvenor's Treasury Team prepares an analysis to determine the amount to be called from investors. Using pre-approved allocation schedule, capital call letters are prepared and reviewed by GCM Grosvenor's Treasury Team and issued to the investor through the Client Web Portal. On the capital call due date, GCM Grosvenor's Accounting Team records and posts the transaction in the general ledger and tracks cash receipts from investors.</p> <p><b>Transfers of Cash</b></p> <p>In all cases multiple individuals are required to process payments. Payments are subject to final approval by at least one GCM Grosvenor authorized signatory. Payments are only made to previously authenticated wire instructions.</p> <p>For all new payment instructions or changes to existing payment instructions, a callback to the payee is performed to verbally authenticate the payment instructions. Where possible, callback contact information is obtained from a publicly listed source such as the company's website or internet search. In the rare case where a vendor does not have a public website a relationship management or known contact with whom GCM Grosvenor has previously worked with may be used as the primary contact. When using a primary contact,</p>



GCM Grosvenor's Treasury Team requests to speak to a different individual to confirm the instructions.

Non-investor payment instructions are authenticated by members of GCM Grosvenor's Treasury Team. After authentication, wire instructions are entered into their treasury management system along with supporting documentation including call back details (who made the call back, what number they called, who they spoke with, and when). The treasury management system will not allow use of new or updated wire instructions until they have been reviewed and approved in the system by a GCM Grosvenor authorized signatory.

#### **Distributions to Investors**

On a periodic basis (generally quarterly), GCM Grosvenor's Fund Accounting and Analysis Team performs an analysis of distributable proceeds to determine whether a distribution should be made to investors, considering cash on hand, remaining client commitments and upcoming funding needs. If it is determined that a distribution is appropriate, a distribution allocation schedule is prepared.

Where applicable, a carried interest calculation is performed to determine whether the General Partner would be entitled to a carry distribution. Carried interest amounts are calculated in accordance with each LPA or other governing legal documents. GCM Grosvenor's Fund Accounting and Analysis reviews and approves the distribution allocation schedule and carried interest calculation to determine if allocations are in accordance with the legal documents and to check for accuracy and completeness (including consideration of carried interest, fund reserves, specific investor situations such as defaulters, delinquent investors, etc.). A senior member of the GCM Grosvenor Accounting and Analysis team's approval is required prior to realizing carried interest.

#### **Valuation Policy/Process**

Does the Firm have a Valuation Policy?	Yes
Overview of the valuation process	GCM Grosvenor has a written valuation policy that requires all investments to be valued in accordance with fair value standards (i.e., US GAAP or IFRS). A dedicated Valuation Team administers the valuation process. Fund NAVs are calculated quarterly by GCM Grosvenor or an independent third-party administrator, depending on the structure and/or the requirements of a Fund. Kroll is engaged to review internally generated co-investment valuations. These third-

	party valuation firms provide positive assurance opinions on a quarterly, rotational basis.
Valuation Committee	<p>Yes</p> <p><b>Committee Members:</b></p> <p>Pamela Bentley, Chief Financial Officer, Valuation Committee Chairperson</p> <p>John Davis, Managing Director</p> <p>Paul Guercio, Managing Director</p> <p>Jonathan Hirsch, Managing Director</p> <p>Stacie Selinger, Managing Director</p> <p>Mark Stachnik, Executive Director</p> <p>Timothy Wyne, Executive Director</p> <p>Jason Metakis, Managing Director</p> <p>Brad Meyers, Managing Director</p>
Frequency of valuations	Quarterly
Are valuations audited annually?	Yes
Is a third-party valuation firm ever used?	Yes
Are valuations in accordance with U.S. GAAP and ASC 820?	Yes

### Allocation of Investment Opportunities

Does the Firm have an Allocation Policy?	Yes
Overview of investment allocation across funds/products	<p>While some investment opportunities presented to GCM Grosvenor are either not subject to capacity constraints or are only appropriate for a particular account, The Firm will, from time to time, be presented with investment opportunities appropriate for multiple accounts. GCM Grosvenor's Global Investment Allocation Policy (the "Allocation Policy") seeks to allocate investments among eligible GCM Grosvenor accounts on a basis that the Firm believes to be fair and equitable.</p> <p>The Allocation Policy recognizes that: (i) while many GCM Grosvenor accounts have broad investment mandates, they nonetheless each have discrete investment guidelines, objectives and constraints that must be considered; and (ii) certain GCM Grosvenor accounts may have investment mandates that require participation in multiple allocation procedures across the firm's global investment platform.</p> <p>GCM Grosvenor does not allocate investment capacity for investment opportunities either (a) in priority on the basis of whether a GCM</p>

	Grosvenor account is organized for multiple investors or a single investor, or (b) on the basis of GCM Grosvenor's anticipated economics.
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If the Firm has a debt product, can it invest alongside the equity product(s)?

No

## LP Reporting

Quarterly/annual reporting package

- ☒ Capital account statements
- ☒ Quarterly unaudited fund financial statements
- ☒ Annual audited fund financial statements
- ☒ Quarterly LP letters/updates
- ☐ Other

Are the ILPA reporting templates utilized?

Yes

## Legal/Compliance

Is the Firm a Registered Investment Advisor or an Exempt Reporting Advisor?

Registered Investment Advisor

Chief Compliance Officer

Lillian Farahnakian

External compliance consultant

GCM Grosvenor utilizes a third-party consulting firm ACA to assist with the review of routine, repetitive, low-risk compliance tasks such as requests for gifts and entertainment, charitable contributions, and political contributions. Further, the third-party compliance consultant also assists with chaperoning expert calls, performing mock exams, and providing industry insights.

Compliance Manual

No

*Comments:* In lieu of a Compliance Manual, the Firm maintains a full suite of compliance policies that addresses applicable regulatory requirements. The Legal and Compliance Team performs a comprehensive annual review of all compliance policies and procedures. This review typically results in modifications to existing policies. Policies and procedures may be revised more frequently in response to internal or external factors, such as changes in the business or changes in laws and regulations.

Code of Ethics

Yes

As a global asset management firm, GCM Grosvenor manages its business and supports its clients by acting ethically and with integrity. GCM Grosvenor believes it is the right thing to do and is fundamental

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to its continuing success. The Code of Ethics (“Code”) outlines the Firm’s duties of care and loyalty; the standards of conduct required of all Covered Persons; and the requirements applicable to outside business activities, conflicts of interest, and personal trading. Personal trading requirements include pre-clearance of accounts and transactions and periodic reporting.

The Code is part of GCM Grosvenor’s compliance policies and procedures, which are reasonably designed to address the requirements of the Federal Securities and Commodities Laws and potential conflicts of interest applicable to GCM Grosvenor and the personal activities of Covered Persons.

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Legal Counsel

Burke Montgomery, GCM Grosvenor General Counsel and Gibson, Dunn & Crutcher LLP

Is the Firm or any key professional subject to any current material litigation proceedings?

No

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## Additional Performance Metrics

PME Analysis, as of 09/30/2023

Fund	VY	Net IRR	Net TVPI	MSCI ACWI Index			S&P 500 Index		
				LN PME IRR	LN PME TVPI	KS PME	LN PME IRR	LN PME TVPI	KS PME
2009 Series	2009	13.88%	1.72x	8.64%	NM	1.22x	13.44%	1.42x	1.03x
2014 Series	2014	16.86%	1.78x	9.24%	1.34x	1.36x	12.90%	1.53x	1.19x
2018 Series	2018	13.29%	1.25x	2.90%	1.05x	1.19x	6.47%	1.12x	1.12x

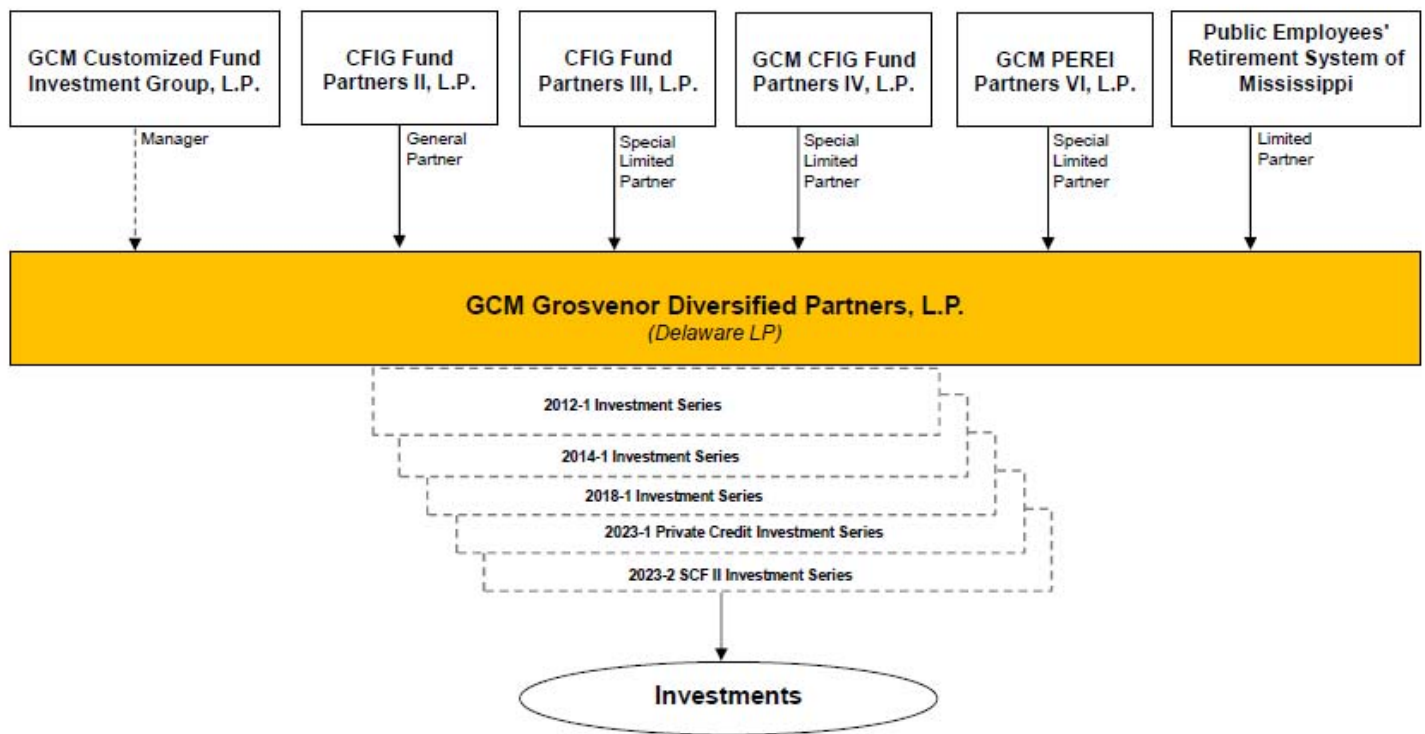
LN: Long Nickels PME methodology

KS: Kaplan-Scholar PME methodology; KS PME > 1x signals outperformance

All Series outperformed MSCI ACWI Index and S&P 500 Index on PME basis.

## Fund Structure

Legal Structure of GCM Grosvenor Diversified Partners, L.P.



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## Investment Team Biographies

### Senior Investment Professional Biographies

<b>Michael Sacks</b> <i>Chairman and CEO</i>	Mr. Sacks is GCM Grosvenor's Board Chairman and Chief Executive Officer. Mr. Sacks joined GCM Grosvenor in 1990 and was named CEO in 1994. Under his leadership, GCM Grosvenor grew from its position as an early participant in a cottage industry to its current position as one of the largest open architecture alternative asset management platforms. Mr. Sacks is engaged civically, serving on a number of nonprofit boards. Mr. Sacks graduated from Tulane University with his Bachelor of Science in Economics and holds a general course certificate from the London School of Economics. In addition, he holds a Master of Business Administration from the Kellogg Graduate School of Management at Northwestern University and a Juris Doctor from Northwestern University's Pritzker School of Law.
<b>Paul Meister</b> <i>Vice Chairman</i>	Mr. Meister is the firm's Vice Chairman and serves as Chair of the firm's Operations Committee. Prior to joining GCM Grosvenor, Mr. Meister was an Associate with the Chicago law firm of Barack, Ferrazzano, Kirschbaum & Perlman, except for a 12-month period from 1989 to 1990, when he managed the real estate operations for a retail company. He received his Bachelor of Science in Accountancy with high honors from the University of Illinois at Urbana-Champaign and his Juris Doctor cum laude from Northwestern University School of Law, where he was a member of the Northwestern University Law Review and was Order of the Coif. Mr. Meister is a Certified Public Accountant and a member of the Illinois Bar. Mr. Meister has served as a member and Chair of the Law Board of Northwestern University School of Law and has been a member and Chair of its Executive Committee. Mr. Meister is also an Adjunct Professor at Northwestern University School of Law and has taught a course covering, among other things, hedge fund strategies and regulation. He previously served on the Board of the Managed Funds Association as an Appointed Director.
<b>Derek Jones</b> <i>Vice Chairman</i>	Mr. Jones is a member of the Private Equity, Real Estate and Infrastructure Investment Committee and serves on the Global Investment Council and the Diversity, Equity and Inclusion Committee. He co-heads the firm's private equity co-investment practice and diverse manager practice. His responsibilities include deal sourcing and investment underwriting activities. Prior to joining GCM Grosvenor, Mr. Jones was a Managing Partner at Oncore Capital, as well as a General Partner at Provender Capital. He started his private equity career at Prudential Insurance Company as part of Prudential Equity Investors, which subsequently became Cornerstone Equity Investors, where he was a partner. Mr. Jones received his Bachelor of Arts in Economics from American University and his Master of Business Administration in Finance from New York University. Mr. Jones serves on the Board of, and was former Treasurer to, the National Association of Investment Companies. Mr. Jones also serves on the advisory board of the American University Kogod School of Business. He is a recipient of the Pacesetter Award from the National Association of Investment Companies in 2012 and the UNCF Keeper of the Flame Award in 2016. He was also recognized as one of the 75 Most Powerful Blacks on Wall Street by Black Enterprise Magazine in 2011. In addition, he recently joined the board of the Apollo theater.

<b>Jonathan Levin</b> <i>President</i>	<p>Mr. Levin is the firm's President and is responsible for day-to-day management of the business. Mr. Levin is Chair of the Global Investment Council and a member of the Private Equity, Real Estate and Infrastructure Investment Committee, the Labor Impact Fund Investment Committee, and the Strategic Investments Investment Committee. Prior to joining GCM Grosvenor, Mr. Levin was the Treasurer and Head of Investor Relations at Kohlberg Kravis Roberts &amp; Co., where he was responsible for managing KKR's balance sheet investments, engaging with public investors and industry analysts, and leading strategic projects. Prior to his role as Treasurer and Head of Investor Relations, Mr. Levin worked in KKR's private equity business and focused on investments in the financial services industry. Mr. Levin began his career as an Analyst in the private equity group of Bear Stearns. He holds an A.B. in Economics from Harvard College and is a member of the board of directors of the Ann &amp; Robert H. Lurie Children's Hospital of Chicago and the Museum of Contemporary Art Chicago.</p>
<b>Frederick Pollock</b> <i>Chief Investment Officer</i>	<p>Mr. Pollock is the firm's Chief Investment Officer and is responsible for managing all investment-related activities for the firm. He is also Head of the Strategic Investments Group and serves on all of the firm's Investment Committees, the Global Investment Council, the Diversity, Equity and Inclusion Committee and the ESG Committee. Prior to joining GCM Grosvenor, Mr. Pollock had various roles at Morgan Stanley, most recently within its merchant banking division, specializing in infrastructure investing, with responsibility for deal sourcing, due diligence, and management as a Board Member of various portfolio companies. He helped form the infrastructure investment group at Morgan Stanley and structured and raised capital for its initial funds. Prior to joining Morgan Stanley, he worked at Deutsche Bank, where he made investments for the firm and on behalf of clients. He received his Bachelor of Science summa cum laude in Economics from the University of Nevada and his Juris Doctor magna cum laude from Harvard Law School.</p>
<b>Lee Brashear</b> <i>Managing Director</i>	<p>Mr. Brashear is co-head of the private equity co-investment practice and is responsible for managing all aspects of the vertical. He is also responsible for origination, underwriting and monitoring private equity co-investments and mezzanine investments. Along with this he manages relationships with sponsors and clients for the focus area. He serves as a Director/Board Observer of portfolio companies and an Advisory Board member of buyout and growth equity funds. Prior to joining GCM Grosvenor, Mr. Brashear was a Senior Analyst in the Private Fund Advisory Group at Lazard Freres, where he was involved in fundraising activities for private equity funds. Mr. Brashear received his Bachelor of Science in Business Administration from the Kenan-Flagler Business School at the University of North Carolina at Chapel Hill.</p>
<b>Jason Metakis</b> <i>Managing Director</i>	<p>Mr. Metakis is a member of the Private Equity, Real Estate and Infrastructure Investment Committee and the Strategic Investments Investment Committee. He also serves on the Global Investment Council. Mr. Metakis co-heads the firm's private equity co-investment practice and is responsible for deal sourcing and investment underwriting activities. Prior to joining GCM Grosvenor, Mr. Metakis was a Principal with DLJ Merchant Banking Partners. Prior to that, he was an investment banker at Donaldson, Lufkin &amp; Jenrette. Mr. Metakis received his Bachelor of Arts with honors in Economics from Harvard College and his Master of Business Administration from Harvard Business School.</p>
<b>Brian Sullivan</b> <i>Managing Director</i>	<p>Mr. Sullivan is a member of the Private Equity, Real Estate and Infrastructure Investment Committee and serves on the Global Investment Council. He is also a member of the Strategic</p>

Investments Investment Committee. Mr. Sullivan leads the secondaries investment team and is focused on sourcing and executing secondary investment opportunities, portfolio management and leadership of the secondary team. Prior to joining GCM Grosvenor, Mr. Sullivan was a Partner at Paul Capital, where he focused on secondary investments and was a member of the firm's investment committee. Prior to that, Mr. Sullivan spent two years as a business strategy consultant with the Boston Consulting Group and five years as an Officer in the U.S. Navy as a member of the (surface fleet) nuclear propulsion program. Mr. Sullivan received his Bachelor of Science in Mechanical Engineering from the United States Naval Academy and his Master of Business Administration from the Wharton School at the University of Pennsylvania. Mr. Sullivan holds the Chartered Financial Analyst® designation.

**Bernard Yancovich**  
*Managing Director*

Mr. Yancovich is a member of the Private Equity, Real Estate and Infrastructure Investment Committee and serves on the Global Investment Council and the ESG Committee. Mr. Yancovich is a leader of the firm's private equity practice and is involved in deal sourcing and investment underwriting activities. Prior to joining GCM Grosvenor, Mr. Yancovich was an Investment Banking Associate at Donaldson, Lufkin & Jenrette, where he worked on a variety of M&A advisory, equity and debt financing and restructuring assignments in industries such as media, telecom, technology, healthcare and industrials. Prior to joining Donaldson, Lufkin & Jenrette, Mr. Yancovich performed transaction advisory services for KPMG in France. He received his Bachelor of Commerce with honors from McGill University and his Master of Business Administration from the University of Western Ontario's Richard Ivey School of Business. He is qualified as a Chartered Accountant.

Source: GCM Grosvenor.



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## Important Information and Disclosures

Information contained in this document may include confidential, trade secret and/or proprietary information of Callan and the client. It is incumbent upon the user to maintain such information in strict confidence. Neither this document nor any specific information contained herein is to be used other than by the intended recipient for its intended purpose.

The content of this document is particular to the client and should not be relied upon by any other individual or entity. There can be no assurance that the performance of any account or investment will be comparable to the performance information presented in this document.

Certain information herein has been compiled by Callan from a variety of sources believed to be reliable but for which Callan has not necessarily verified for accuracy or completeness. Information contained herein may not be current. Callan has no obligation to bring current the information contained herein.

This content of this document may consist of statements of opinion, which are made as of the date they are expressed and are not statements of fact. The opinions expressed herein may change based upon changes in economic, market, financial and political conditions and other factors. Callan has no obligation to bring current the opinions expressed herein.

The statements made herein may include forward-looking statements regarding future results. The forward-looking statements herein: (i) are best estimations consistent with the information available as of the date hereof and (ii) involve known and unknown risks and uncertainties. Actual results may vary, perhaps materially, from the future results projected in this document. Undue reliance should not be placed on forward-looking statements.

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Reference to, or inclusion in this document of, any product, service or entity should not necessarily be construed as recommendation, approval, or endorsement or such product, service or entity by Callan.

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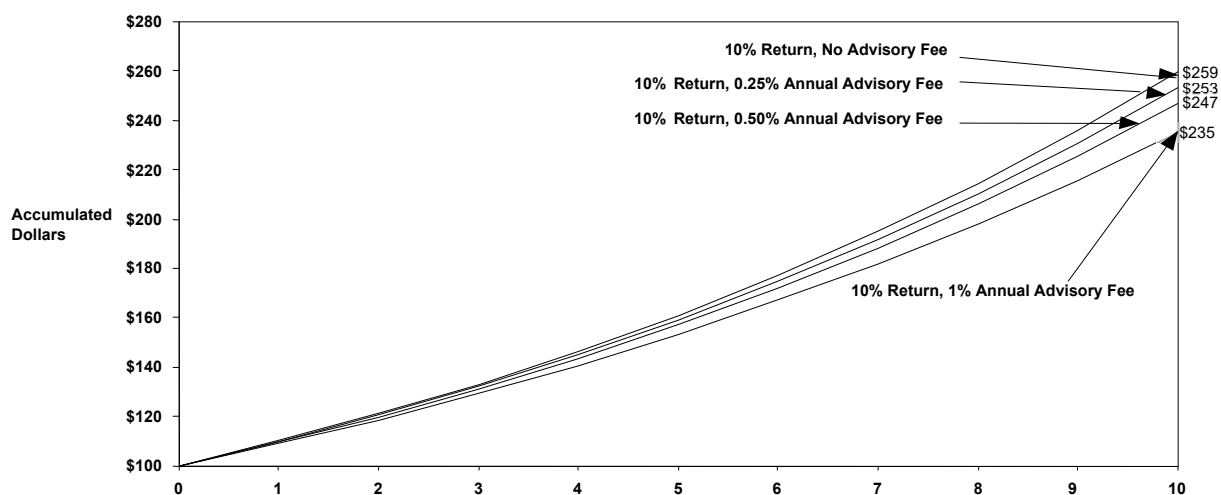
## Disclosure Statement

The preceding report has been prepared for the exclusive use of MPERS. Unless otherwise noted, performance returns contained in this report do not reflect the deduction of investment advisory fees. The returns in this report will be reduced by the advisory fees and any other expenses incurred in the management of an investment account. The investment advisory fees applicable to the advisors listed in this report are described in Part II of each advisor's form ADV.

The following graphical and tabular example illustrates the cumulative effect of investment advisory fees on a \$100 investment growing at 10% over ten years. Fees are assumed to be paid monthly.

In addition to asset-based investment advisory fees, some strategies may include performance-based fees ("carry") that may further lower the returns realized by investors. These performance-based fees can be substantial, are most prevalent in "Alternative" strategies like hedge funds and many types of private markets but can occur elsewhere. The effects of performance-based fees are dependent on investment outcomes and are not included in the example below.

### The Cumulative Effect of Advisory Fees



	Accumulated Dollars at End of Years									
	1	2	3	4	5	6	7	8	9	10
No Fee	110.0	121.0	133.1	146.4	161.1	177.2	194.9	214.4	235.8	259.4
25 Basis Points	109.7	120.4	132.1	145.0	159.1	174.5	191.5	210.1	230.6	253.0
50 Basis Points	109.5	119.8	131.1	143.5	157.1	172.0	188.2	206.0	225.5	246.8
100 Basis Points	108.9	118.6	129.2	140.7	153.3	166.9	181.8	198.0	215.6	234.9

10% Annual Return Compounded Monthly, Annual Fees Paid Monthly.

Disclosure

As indicated below, one or more of the candidates listed in this report may, itself, be a client of Callan as of the date of the most recent quarter end. These clients pay Callan for educational, software, database and/or reporting products and services. Given the complex corporate and organizational ownership structures of investment management firms and/or trust/custody or securities lending firms, the parent and affiliate firm relationships are not listed here.

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Firm	Is an Investment Manager Client of Callan*	Is Not an Investment Manager Client of Callan*
GCM Grosvenor		X

\*Based upon Callan manager clients as of the most recent quarter end.

# Heitman Value Partners Fund VI

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## Fund Recommendation

April 23, 2024

Jason Clark

Lead Portfolio Manager – Alternatives



Date: April 23, 2024

To: PERS Investment Committee

Re: Value-Add Real Estate Commitment

In 2011 the PERS Board adopted a real estate portfolio structure calling for a 15% allocation to Value-add (non-Core) real estate funds within the real estate asset class. As of 9/30/2023, the market value of PERS' Value-add real estate investments was \$497,494,105, which equals approximately 15% of the total real estate asset class. The Value-add real estate segment of the PERS portfolio currently consists of commitments to nineteen funds with six different general partner fund managers. Value-add real estate investments target a 11-15% annual return from properties with in-place cash flows but seek to increase that cash flow over time by making improvements to or repositioning the property not operating at its full potential. Value-add investments will typically generate higher returns to investors than Core investments through appreciated asset value.

Of the twenty Value-add Real Estate funds PERS is currently funding, seven are in the closing phase or will close within the next 12 months, six are in the process of selling assets in the liquidation phase of their lifecycle, while the other seven funds remain in the investment or value-add phase. As these funds near the end of their lifecycle, the value-add thesis is realized, the fund enters the liquidation phase, assets are sold, and monies are distributed to investors over a period. Unlike the public markets, this process of cash recycling over time reduces PERS's overall exposure to real estate. This requires what might appear to be an over commitment to Value-add real estate; however, pacing projections indicate that to achieve and maintain the 15% target exposure, PERS should continue to commit to an average of approximately \$75 – \$100 million in commitments annually for 2023 and 2024. Heitman Fund VI will be the only current Value-add fund seeking investment in 2024.

Historically, PERS has chosen to continue investing through its established Value-add fund relationships. This decision is always predicated on pacing needs, favorable analysis of the firm's prior funds, continuity of the fund's investment team, acceptable deal terms, and relation to NCREIF benchmark. A current general partner, Heitman Realty, is actively seeking partnership commitments to its Value Fund VI investment opportunity.

Like most of the PERS Value-add real estate investments, Heitman funds have a proven track record which have traditionally met or exceeded target returns in addition to performing well relative to their peers and the NCREIF benchmark. Heitman Value Partners Funds provide a complimentary strategy to the rest of the PERS portfolio by investing across both traditional and differentiated property types unique to the PERS real assets portfolio. Appreciation through income is a key factor in Heitman's Delinked Sector strategy seeking opportunities with defensive characteristics, which are less reliant on economic growth.

Included for consideration is Callan's evaluation of Heitman as an organization, performance of prior funds, as well as their feedback as it relates to this recommended Fund VI commitment. The findings from that analysis have been provided for the Investment Committee's review as confirmation that this fund is indeed suitable for PERS' continued partnership participation. Based on tenure, stability, and their success in managing unique international Value-added real estate funds, staff recommends a \$75 million commitment be made to the Heitman Partners Real Estate Fund VI.

## **Value-Add Real Estate Fund Commitment – April 2024**

### **Heitman Value Partners Fund VI**

#### **How much to commit? \$75 Million**

As of the 2017 Pacing Study conducted by Callan, it was suggested that future commitments made to closed-end Value-added real estate funds be increased from \$50 million to \$75 million. This was suggested to ensure that real estate as an asset class achieves the target asset allocation of 10% of the overall PERS Defined Benefit portfolio. The 2019 Pacing Study reaffirmed the 2017 decision with the suggestion that PERS make commitments to non-core real estate funds on the average of \$150 million annually.

With the volatility in the public markets and reduction in asset value in specific sectors of the real estate market causing a denominator effect in private market allocations beginning in 2022, PERS Staff and Callan worked together to revisit the pacing schedule for 2023 and beyond. The result was an agreement to reduce the annual commitments of new investments from \$150 million, down to between \$75 - \$100 million annually for 2023 and 2024. With a majority of the PERS Value-add real estate portfolio funds either in, or about to begin the harvest and distribution phase of their life cycle, Heitman Value Partners Fund VI will be the only current asset manager fund raising capital for a new fund in 2024. With a single \$75 million commitment in 2024, PERS will continue to gain exposure to vintage year diversification while keeping the allocation at the target of 15% of the real estate portfolio.

#### **Commitment dates – Initial Closing period is set to end on May 20, 2024:**

The initial closing period for Fund VI has begun as of February 20 and will end on May 20. This is common to have a rolling closing period to accommodate each Limited Partner's due diligence and the differing Board approval processes. The final close of Fund VI will likely be later in 2024, or early 2025, once the fund has reached the fundraising target necessary to carry out the fund's stated investment strategy. In creating a sense of urgency, Heitman has put forth participant incentives for both new and returning Limited Partners participating in the initial closing.

#### **Participant Incentives:**

By participating in the initial closing period ending on May 20, with a commitment of \$75 million, PERS of MS would qualify for a fee reduction incentive, bringing the annual management fee down on invested capital. The early close incentive is:

- Participating in the initial closing by May 20, qualifies PERS for a 10 bps discount.
- Being a returning legacy investor, qualifies PERS for a 35 bps discount.
- Investing at a commitment size of \$75 million, qualifies PERS for a 25 bps discount.

These incentives account for a total discount on fees of 47%, bringing the annual management fee on invested capital down to only 80 bps, which is on the low end of comparable investment managers.

**Commitment Process:**

Before being presented to the Board of Trustees and the Executive Director for approval, the fund's documents will have been reviewed and recommended by PERS Investment Staff, by PERS' investment consultant Callan, and outside legal counsel at Chapman and Cutler. Before seeking a signature from the Executive Director, all terms will have been negotiated and documents finalized by outside legal counsel at Chapman & Cutler, LLP, as well at PERS' internal legal counsel. If approved by the Board, the Executive Director will be presented with the final documents to sign. Once the documents have been executed, they will then be submitted to the fund manager's counsel, as a commitment to invest.

It is important to understand that the fund will not request capital from PERS until all other participating limited partners have committed and Heitman holds a final closing within the next 12 - 18 months. After the final close, capital will then be called as needed from all limited partners on a pro rata basis depending on the limited partner's commitment level. This called capital will then be used to secure investment assets within the partnership. The total life cycle of a Value-add real estate fund is typically between 10-12 year from the beginning of the fundraising period until all assets have been sold and the fund closes.

## **PERS of MS Real Estate Value-Added Portfolio Terms**

**Value-added (Non-Core) Real Estate** – These investments are considered closed-end funds since there is a set start and end date, outside investors cannot typically buy into the fund, and they cannot be liquidated on demand. Liquidity is only realized through distributions upon the sale of a property held within the fund. These funds typically target properties that have in-place cash flows but seek to increase that cash flow over time by making improvements to or repositioning the property not operating at its full potential. Successful Value-add projects will typically target a 11-15% return, which is significantly higher than core investments due to anticipated appreciation in value, but also has the potential for greater losses than core fund investments.

**IRR (Internal Rate of Return)** – Used regularly in Real Estate and Private Equity as a quantitative measure return on investment. A property's IRR is an estimate of the value it generates during the time frame in which you own it. Effectively, the IRR is the percentage of interest earned on each dollar invested in a property over the entire holding period beginning at inception.

**Pacing Schedule** – A suggested amount of capital that a portfolio should invest on an annual basis to ensure a consistent growth rate that allows continued alignment with a strategic allocation target of that asset class.

### **Life Cycle of a Value-added fund:**

- **Initial Closing** – Starting at the initial closing date, Limited Partners such as PERS of MS can begin making commitments to invest in the proposed fund. There can be incentives for limited partners who participate in committing capital on this date or allowed window. Committed capital levels give the Funds Manger a good idea of interest in the fund and the strategy being used.
- **Commitment Period** – Also known as the fund-raising period, is the time allotted to bring other Limited Partners into the fund. This period usually lasts between 12 – 18 months depending on the interest of the fund and how quickly it reaches its target fund size.
- **Final Closing** – The commitment period ends at the date of the final close. No new investors can commit new capital to the fund after this date. A limited partner's capital cannot be called until after the final closing.
- **Investment Period** – This is the period during the life of the fund where investor capital is used to make purchases that will fulfill the strategy of the fund. This period begins with the initial call of capital from the investors and ends on a set date approximately 3 years after the final closing. Extensions to the investment period may be enacted to allow for more opportunities for acquisitions consistent with the fund's strategy during market dislocation.
- **Liquidation Period** – After the investment period is complete, the fund seeks opportunities to achieve the stated strategy and realize profits from income generation and the selling of properties held before the fund's lifecycle is complete, approximately 8-10 years after the final closing. If market conditions necessitate, the fund manager may also utilize extensions at this time to allow for a change in the market cycle before selling remaining properties.



## Public Employees' Retirement System of Mississippi

[Current Heitman Relationship](#)

Fund Name	<a href="#">HVP III</a>	Fund Name	<a href="#">HVP IV</a>	Fund Name	<a href="#">HVP V</a>
Committed Equity	\$50M in 2013	Committed Equity	\$50M in 2017	Committed Equity	\$75M in 2020
IRR Net of AMF & GP Fees	15.39%	IRR Net of AMF & GP Fees	14.18%	IRR Net of AMF & GP Fees	(0.89%)
Multiple Net of AMF & GP Fees	1.42x	Multiple Net of AMF & GP Fees	1.39x	Multiple Net of AMF & GP Fees)	0.99x

[Heitman Value Partners Series](#)

Heitman began investing on behalf of the Heitman Value Partners Series in 2003 and has invested capital on behalf of five funds in the series. Heitman began investing for Heitman Value Partners (“HVP”) in 2003 with \$400 million in capital commitments. Upon completion of its investment period, HVP was diversified across 105 assets totaling almost \$2 billion in real estate. Heitman began investing for Heitman Value Partners II, L.P. (“HVP II”), in 2007 with \$800 million in capital commitments. Upon completion of its investment period, HVP II was diversified across 202 assets totaling \$2.1 billion in real estate. In 2013, Heitman began investing for Heitman Value Partners III, L.P. (“HVP III”) with \$421 million in capital commitments. Upon completion of its investment period, HVP III was diversified across 128 assets totaling \$1.7 billion in real estate. Heitman began investing for Heitman Value Partners IV, L.P. (“HVP IV”) in January 2018 with \$873 million in capital commitments. Upon completion of its investment period, HVP IV was diversified across 1,319 assets totaling almost \$2.8 billion in real estate. These investments encompass a broad range of property types, transaction structures, and deal sizes. Heitman Value Partners V (“HVP V”) was launched in 2020 and had its final close on June 9, 2021, with \$1.375 billion of total capital commitments. Its investment period runs through June 9, 2024.

[Heitman Value Partners](#)

HVP invested the majority of its capital throughout 2005 and 2006. Investments made early in the fund’s life began winding down prior to the onset of the GFC and produced strong returns. HVP’s remaining investments were still in the value-creation process when the GFC began. Heitman refocused the fund’s business plan on capital preservation and positioning the assets for disposition when the market recovered. HVP’s cash flow was sufficient to see it through this tumultuous time and did not require any recapitalization or additional capital from its investors. In 2010, the fund tested the market with a large apartment asset in the Southeast and ultimately sold the asset at an attractive premium over the fund’s carry value. Heitman began actively selling HVP’s assets in 2011 and throughout 2012. Though the weakened economic conditions of 2008, 2009, and 2010 had a profound impact on the fund’s performance, the fund’s investment performance was attractive for the vintage year.

[Heitman Value Partners II, L.P.](#)

HVP II accepted capital commitments and invested at what the firm now knows was the top of the market. Heitman began investing for HVP II in 2007, but as the market weakened in late 2007 and early 2008, the firm first slowed and then eventually stopped investing capital. As a result of Heitman’s view of the risk in the market, HVP II pulled back and did not deploy any new capital for 18 months. The discipline Heitman exercised put HVP II in the advantageous position of having only deployed 39% of its capital and leaving the fund both resources to defend the investments that it had previously made and significant capital to make investments as the market recovered. The post-GFC investments produced a daily compounded leveraged IRR (net of fees and other sponsor compensation) of 17%. The blended daily compounded leveraged IRR for the entire portfolio, pre- and post-GFC, is 8.6% (net of fees and other sponsor compensation), which Heitman believes to be an overall attractive return for the vintage year.

Heitman Value Partners III, L.P.

Heitman began investing for HVP III in the fourth quarter of 2013 and invested \$396 million across 15 separate investment programs. HVP III sold its last investment in December 2021, and the fund realized a final net IRR of 15.28%, almost 130 basis points above the high end of the fund's original return target.[1] In Heitman's view, this high level of performance can be attributed to a combination of factors including portfolio construction, asset-level business plan execution, and timely dispositions from the portfolio. Capital market conditions over this period were largely supportive of asset pricing and our partner market and asset selections were very good. The fund's investment performance was partly driven by the heavier sector weights in the better performing property sectors, like apartments (38%) and alternative or specialty properties (self-storage, 35%). Medical office (18%) was also an important element of our portfolio construction. The fund had minimal exposure (8%) both in terms of equity weight and duration to commercial office and 0% to retail, both underperforming property sectors. In an ageing economic and property market cycle, we also shortened investment duration on certain strategies.

Heitman Value Partners IV ("HVP IV")

Heitman began investing for HVP IV in the fourth quarter of 2017 and completed portfolio construction in early 2022. In total, we have invested approximately \$821 million of HVP IV equity across 25 investments. Our current projections expect HVP IV to produce a leveraged IRR (net of fees and other sponsor compensation) of 14-16%.[2] As of April 1, 2024, HVP IV has fully realized 12 investments (\$305 million or 37% of original equity invested), which in the aggregate have produced a leveraged IRR (net of fees and other sponsor compensation) of 17.6%. This high level of performance can be attributed to successful execution of our business plans, including portfolio construction, asset-level execution, and several timely asset dispositions. As of April 1, 2024, HVP IV's distributions to paid in capital ratio is 0.75x. Many of our investment sales have occurred ahead of our original plans to opportunistically take advantage of competitive market conditions for certain property types. With a capital market environment that remains challenging due to current yield requirements, our disposition volume has slowed. Patience and prudent decision making remain important ingredients as we monitor capital market conditions and look to optimize the timing of our dispositions. We continue to believe that HVP IV's portfolio positioning, and sector weightings will prove to be favorable in terms of intermediate-term performance.

Heitman Value Partners V ("HVP V")

Heitman began investing for HVP V in early 2021 and has invested approximately \$1.06 million (83% of its investable capital base) to 18 separate investment programs. These investments represent a diverse mix of property types, including alternatives (self-storage, student housing, senior housing, and single-family rental), apartments, medical office, grocery-anchored retail, and industrial properties. The strategies across these ventures are diverse as well and range from aggregation, development, physical upgrades to reposition assets for income growth, operational improvements through lease-up and platform operating leverage and taking advantage of capital market mispricing of risk, in the case of our retail exposure. As of April 1, 2024, we have no exposure to the commercial office sector, which we expect will serve us well. The commitment period for HVP V expires in June 2024. As of December 31, 2023, HVP V has a projected net IRR of 9-11% (net of fees).[3]

Heitman Value Partners VI ("HVP VI")

Heitman Value Partners VI, L.P. ("HVP VI" or the "Fund"), is a closed-end, commingled fund, and the sixth offering in the firm's North American value-added series. HVP VI will execute value-creation strategies focused on the physical, operational, or financial transformation of assets through tactical programs. The objective of the Fund is to provide investors with attractive risk-adjusted returns of 12-14%, net of all fees and other sponsor compensation.<sup>[4]</sup> HVP VI will invest across multiple property types to construct a diversified portfolio that includes meaningful exposure to specialty property types. The strategy seeks to capitalize on Heitman's extensive research, real estate, and capital markets expertise to identify emerging investment opportunities and trends before they are fully appreciated by the broader market and to execute investment strategies that capitalize on those opportunities.

[1] Returns are presented net of all fund-level costs and expenses, including sponsor compensation. Returns are realized returns based on actual cash flow. The fund used a subscription-backed credit facility to pay certain organization expenses and make certain investments prior to calling capital. The use of this facility had a positive impact on investor returns of approximately 1.62%.

[2] The projected returns are based on (a) actual operating and disposition results through December 31, 2023, and (b) projected operating and disposition results through the anticipated disposition date of all investments made or to which the fund had committed as of December 31, 2023. The calculation of the projected returns is dependent on assumptions applied to certain material factors, including, but not limited to: (i) annual unlevered appreciation of -17.16% to 10.65% (which varies by value add strategy and asset class) generated over an expected hold period for each asset, which ranges from 36 months to 88 months; (ii) terminal cap rates in the range of 4.48% - 9.05% for operating investments; (iii) a development profit equal to 20% - 64% on newly constructed assets; (iv) a combination of portfolio and asset level leverage equal to 56% - 78% of HVP IV's gross cost as of December 31, 2023; (v) leverage spreads in a range of 140 - 285 basis points resulting in all-in interest rates of 2.24% - 8.20% as of December 31, 2023; (vi) fund-level management fees based on the current blended rate; and (vii) sponsor incentive compensation (calculated based on projected returns, fees, costs and disposition date for

each asset) resulting in 82 basis points of drag on the net IRR. There can be no assurance that the assumptions discussed herein and used to calculate HVP IV's projected returns will be correct or achievable, and other factors not described above may materially impact the returns of HVP IV, or that HVP IV will achieve its investment objectives and projected returns based on such assumptions. Actual HVP IV returns will vary and may vary significantly from the projected returns set forth above. Net returns are presented net of all costs and expenses and net of all fees and other sponsor compensation. Asset management fees vary by investor. (Projected returns for individual investors are higher for investors paying fees calculated with a rate lower than the blended fee rate and lower for investors paying fees calculated with a rate higher than the blended rate.) HVP IV used a subscription-backed facility to pay certain organizational expenses and make certain investments prior to calling capital. The use of this facility is projected to have a positive impact on investor returns of approximately 97 basis points.

[3] The projected returns are based on (a) actual operating results through December 31, 2023, and (b) projected operating and disposition results through the anticipated disposition date of all investments made or to which the fund had committed as of December 31, 2023. The calculation of the projected returns is dependent on assumptions applied to certain material factors, including, but not limited to: (i) annual unlevered appreciation of 1.37% to 10.13% (which varies by value add strategy and asset class) generated over an expected hold period for each asset, which ranges from 40 months to 70 months; (ii) terminal cap rates in the range of 4.50% - 7.00% for operating investments; (iii) a combination of portfolio and asset level leverage equal to 54% - 61% of the fund's gross cost as of December 31, 2023; (iv) leverage spreads in a range of 130 - 445 basis points resulting in all-in interest rates of 2.15% - 8.75% as of December 31, 2023; (v) fund-level management fees based on the current blended rate; and (vi) sponsor incentive compensation (calculated based on projected returns, fees, costs and disposition date for each asset) resulting in 16 basis points of drag on the net IRR. There can be no assurance the assumptions discussed herein and used to calculate the fund's projected returns will be correct or achievable, that other factors not described above may materially impact the returns of HVP V, or that the fund will achieve its investment objectives and projected returns based on such assumptions. Actual HVP V returns will vary and may vary significantly from the projected returns set forth above. Net returns are presented net of all costs and expenses and net of all fees and other sponsor compensation. Asset management fees vary by investor. (Projected returns for individual investors are higher for investors paying fees calculated with a rate lower than the blended fee rate and lower for investors paying fees calculated with a rate higher than the blended rate.) HVP V used a subscription-backed credit facility to pay certain organizational expenses and make certain investments prior to calling capital. The use of this facility is projected to have a positive impact on investor returns of approximately 16 basis points.

[4] The Fund is targeting an aggregate, leveraged, daily compounded, 12-14% annual rate of return on capital invested in the Fund, net of all management compensation and other costs, fees and expenses (including Fund-level expenses) but gross of partner taxes. Management fees for the Fund are expected to vary by investor. Target returns are calculated based on the highest fee payable by investors in HVP VI. If calculated based on fees paid by lower fee paying investors, the target returns would be slightly higher. The Fund's target returns should be regarded as mere objectives intended to illustrate the Fund's overall investment approach, style and philosophy and are not projections or assurances that the Fund will be able to originate investment opportunities, net of fees, expenses and incentive compensation, sufficient to provide the targeted returns to investors. The target returns are derived from assumptions regarding a combination of operating income and appreciation with respect to similar projects in which the Fund would seek to invest, are shown on an annualized basis, and represent what would be a full market cycle. The calculation of these target returns is dependent on assumptions applied to certain material factors, including, but not limited to: (i) stabilized cap rates in a range of 5.50%-8.00%; (ii) annual unlevered appreciation of 4.0%-8.0% generated over a range of holding periods between 36 months and 60 months; (iii) annual capital expenditures equal to 0.3%- 1.0% of gross market value; (iv) a development profit of 19%-30% or greater on newly constructed assets; (v) a combination of portfolio and asset level leverage equal to 55%-60% of the Fund's gross market value; (vi) leverage spreads in a range of 175-400 basis points resulting in all-in interest rates of 5.5%-7.75%; (vii) management fees in a range of 70-150 basis points; and (viii) incentive compensation equal to a range of drag on the IRR of 70-110 basis points. There can be no assurance the assumptions discussed herein and used to calculate the Fund's targeted returns will be correct or achievable, that other factors not described above may materially impact the returns of the Fund, or that the Fund will achieve its investment objectives and targeted returns based on such assumptions. Actual Fund returns will vary and may vary significantly from the targeted returns set forth above.

April 4, 2024



## **Mississippi Public Employees' Retirement System**

Heitman Value Partners VI, L.P.

Important Disclosures regarding the use of this document are included at the end of this document. These disclosures are an integral part of this document and should be considered by the user.

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## Executive Summary and Recommendation

Heitman Capital Management LLC (the “Firm”, the “Sponsor”, the “Team”, or “Heitman”) is currently sponsoring Heitman Value Partners VI, L.P. (the “Fund”, “HVP VI”, or “Fund VI”). Fund VI is a continuation of the Value Partners fund series and Callan considers Fund VI to be a re-up with the Sponsor. This report provides a review and recommendation regarding a potential investment by Mississippi Public Employees’ Retirement System (“MSPERS”) in Fund VI. MSPERS made a \$75 million investment in Heitman Value Partners V, L.P. (“Fund V”), a \$50 million investment in Heitman Value Partners IV, L.P. (“Fund IV”), a \$50 million investment in Heitman Value Partners III, L.P. (“Fund III”), and a \$50 million investment in Heitman Value Partners II, L.P. (“Fund II”) which are the prior funds in the series. It is standard practice within closed-end fund investing to commit to follow on funds within a series to maintain vintage year diversification, barring significant changes to or challenges within the management organization, fund strategy, or performance.

Callan reviewed the Fund’s documents, including the Limited Partnership Agreement, Private Partnership Memorandum, and Due Diligence Questionnaire, as well as the marketing presentations and research used by the Sponsor to evaluate the investing environment. Callan held a video call with following members of the Heitman team on February 14 and 15, 2024: Tom McCarthy, Senior Managing Director and co-Portfolio Manager, Michael Trench, Executive Vice President and co-Portfolio Manager, Lewis Ingall, Senior Managing Director, and Shauna Dills, Senior Vice President. Ms. Dills served as the primary point of contact for follow up information.

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## Investment Strategy<sup>1</sup>

Heitman Value Partners VI is the sixth in a series of value added diversified closed end commingled funds managed by Heitman. HVP VI will broadly continue with the same strategy and investment structures pursued by the prior funds within the Heitman Value Partners series and will continue to target a 12% to 14% net IRR and a 14% to 16% gross IRR. It is anticipated that 25% of the return will be derived from current income, and 75% from appreciation. Heitman is targeting \$1.75 billion in commitments. The Fund will pursue a value added strategy that focuses on physical, operational or financial transformation of assets. The team will invest in a portfolio of property-level partnerships with public and private REITs and real estate operating companies. A full array of property types will be targeted. Leverage is limited to 60% of gross property value at the Fund level.

The Fund is expected to consist of ten to thirty investment programs, which are estimated to consist of three to six assets per investment program, with the exception of self-storage, single-family rentals, and medical office buildings. For those property types, the Fund will likely aggregate portfolios with joint venture partners and these portfolios will have a higher number of smaller assets. The gross value for each asset is expected to range from \$25-\$100 million (excluding smaller assets like self-storage, single-family rental and medical office buildings, which are typically aggregated as part of a larger portfolio). No more than 15% of the aggregate Commitments may be invested in a single investment. The Fund’s typical investment size will range from \$75 million to \$150 million of equity. The average holding period is expected to range from three to seven years.

The Fund strategy will focus on three primary themes, including (1) Delinked Sectors, (2) Growth Sectors, and (3) Contrarian Markets and Sectors. The Delinked Sector strategy will target sectors that are less dependent on economic growth and that have defensive characteristics. Income is emphasized as a key return driver. The Team believes that these sectors have initial yields that exceed those of primary property types and have drivers that are different from traditional property types. This strategy will seek to aggregate sector-specific portfolios and acquire certain underperforming assets in need of repositioning or renovation. Specifically, within the Delinked Sectors strategy the Fund will target:

- Self-Storage development;

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<sup>1</sup> The information presented in this document reflects quoted and paraphrased excerpts of material provided to, and reviewed by, Callan, by the Sponsor.

- Senior housing acquisition and development;
- Student housing rehabilitation; and
- Specialty portfolio aggregation such as medical office and self-storage

The Growth Sectors strategy will seek to capitalize on shifting demographic growth trends to invest in areas where demand exceeds supply and has a greater probability of net operating income growth. The Growth Sectors strategy will focus on:

- Single family rental portfolio aggregation and development;
- Apartment renovation
- Industrial development; and,
- Office repurposing.

The Contrarian Markets and Sectors strategy will target out-of-favor markets and sectors that are seeing lesser capital flows and better relative pricing. Heitman believes opportunities exist resulting from negative investor sentiment and changing market conditions, and that these opportunities have mispriced risk and return characteristics. Additionally, certain sectors and markets have recapitalization opportunities driven by borrower distress, loan maturities or other financial pressure. Contrarian strategy will target:

- Acquisition of performing assets from distressed sellers;
- Situational opportunities resulting from weak financial conditions and financial stress; and
- Structured investments.

The Fund will exclusively invest in North America, focusing specifically on assets in the US. The Fund may invest up to a maximum of 10% of the aggregate commitments in Canada and Mexico. The prior funds within the series do not have any international exposure. The Fund will be diversified across property sectors, and the team expects that specialty property sectors, specifically self-storage, medical office, student housing, senior housing, single-family rentals, and life science facilities, will make up a significant weighting in the Fund. The following table highlights the sector and region exposure of the prior funds within the series as of September 30, 2023:

	HVP I	HVP II	HVP III	HVP IV	HVP V*
<b>Sector</b>					
Office	6%	17%	8%	7%	0%
Residential	38%	34%	38%	26%	27%
Industrial	9%	9%	1%	6%	8%
Retail	18%	0%	0%	4%	8%
Specialty (Medical Office, Senior Housing, Student Housing, Self-storage, Condominium, and Hotel)	29%	40%	53%	56%	57%
<b>Region</b>					
East	29%	26%	32%	22%	19%
Midwest	9%	11%	8%	17%	18%
West	38%	38%	29%	18%	14%
South	24%	25%	31%	43%	33%
Unidentified	0%	0%	0%	0%	16%

\*Based on \$1.3 billion in committed capital

It is anticipated that the majority of Fund's investments will be structured as joint ventures with a series of operating partners. Heitman has an existing network of relationships with both public and private operating companies, many of which were partners in the prior Heitman Value Partners funds. Heitman seeks operating partners that are large and established and that have experience with institutional

investment partners. Heitman will require co-investment by the operating company entity alongside the Fund to provide alignment of interest. It is expected that operating partner co-investment will range between 5% and 50% of total equity. Typical co-investment is 15%, however there is no stated target for co-investment levels. The Fund will typically control at least a 50% economic interest in each partnership. The Fund will have the right to approve all major decisions with respect to a partnership or its properties. Operating partners typically manage all day-to-day operations of an investment subject to jointly approved annual operating and capital budgets. Provisions in the joint venture agreements usually provide for shared decision making regarding annual business plans, major capital decisions and exit strategies. The Fund will generally seek to retain the right to approve or reject all investment proposals after the venture is formed.

Investments may be structured as equity, preferred equity or debt. Fund VI is limited to no more than 33% of commitments in debt investments. Additionally, Heitman has a dedicated debt vehicle that originates loans that the HVP team will not compete with. Most likely, the majority debt investments would take the form of preferred equity investments or assuming the loan with the goal of acquiring the asset.

The Fund may invest in new development. Heitman plans to mitigate development risk by forming joint ventures where the operating partner has secured building permits and financing. Typically, Heitman requires that a developer be responsible for recourse on construction loans as well as cost overruns. Development in HVP I totaled 10% of invested equity in HVP I, 20% of invested equity in HVP II, 19% of invested equity in HVP III, and currently totals 17% of invested equity in HVP IV, and currently totals 21% in HVP V. The Fund documents currently allow for 30% of Fund commitments to be targeted to development. Additionally, investment in unentitled land or unencumbered land is prohibited.

**Leverage Strategy**

Leverage will be employed as a part of the strategy. The current Fund documents include a 60% leverage limitation at the Fund level and an 80% limit at the investment level. The team intends to utilize investment level financing without recourse to the Fund. Cross-collateralization will not be pursued, unless the investments are part of a single partnership. Generally, Heitman will only use floating rate leverage in construction loans on new development, converting to fixed upon stabilization. The Fund may use interest rate caps or swaps to hedge loans. Additionally, Heitman will utilize a credit facility in order fund investments or pay expenses in advance of capital contributions. Any borrowing from the credit facility must be repaid within nine months of being drawn, however will likely be paid down earlier.

**Allocation Policy**

Heitman maintains a separate investor rotation list for core and value-added investments that the firm pursues on behalf of its clients, as the acquisitions team sources all core and value-added investments for the firm. All potential investments are initially evaluated by senior management for the appropriateness for each client, taking into consideration such factors as risk profile, investment structure, geographic location, execution timing constraints, portfolio objectives and property type. In the circumstance where a potential investment is deemed suitable for more than one client, the investment is allocated to the client holding the highest priority on the applicable rotation list. Every active client of the firm is chronologically ordered on the list based on length of elapsed time since the last investment for such client was made, with highest priority granted to the client with the longest period of elapsed time. Should an investment be allocated to a client but fail to close, the client will retain its position on the list. If a client that is non-discretionary is offered an investment and declines to pursue it, the client retains its position on the list, but after three such events, the client is placed at the end of the rotation.

The table below highlights the value-add mandates managed by Heitman other than the Heitman Value Partners fund. The HVP funds have an exclusivity clause that states it has the first look at all value-add joint venture opportunities requiring an equity investment of \$100 million or less. This exclusivity ensures that the Funds do not have to compete with Heitman's separate account clients for deal flow.

Vehicle	Strategy	Remaining Net Allocation (\$MM)
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Separate Account 1	Core and Value Added - Apartment, Industrial, Office, Retail, Self-Storage	\$62
Separate Account 2	Core and Value Added - All Property Types	TBD
Separate Account 3	Core and Value Added - Apartment, Industrial, Office, Medical Office, Retail, Self-Storage	TBD
Separate Account 4	Core and Value Added - All Property Types	TBD

## Valuation Policy

Fund properties are initially carried at their purchase price. Valuations of investments typically occur internally on a quarterly basis and externally once every three years. Heitman uses the discounted cash flow and comparable sales methodology to value properties. The team evaluates the capitalization structure of the investment in discussion with the Firm's debt group. Heitman marks debt to market in compliance with the provisions outlined by the National Council of Real Estate Investment Fiduciaries ("NCREIF"). Heitman has established a Valuation Committee, consisting of executive management and property-type specialists from the research and acquisitions teams. These professionals must review and approve proposed asset values. As part of the portfolio management process, each property is also reviewed quarterly for significant events affecting value.

## Sponsorship<sup>2</sup>

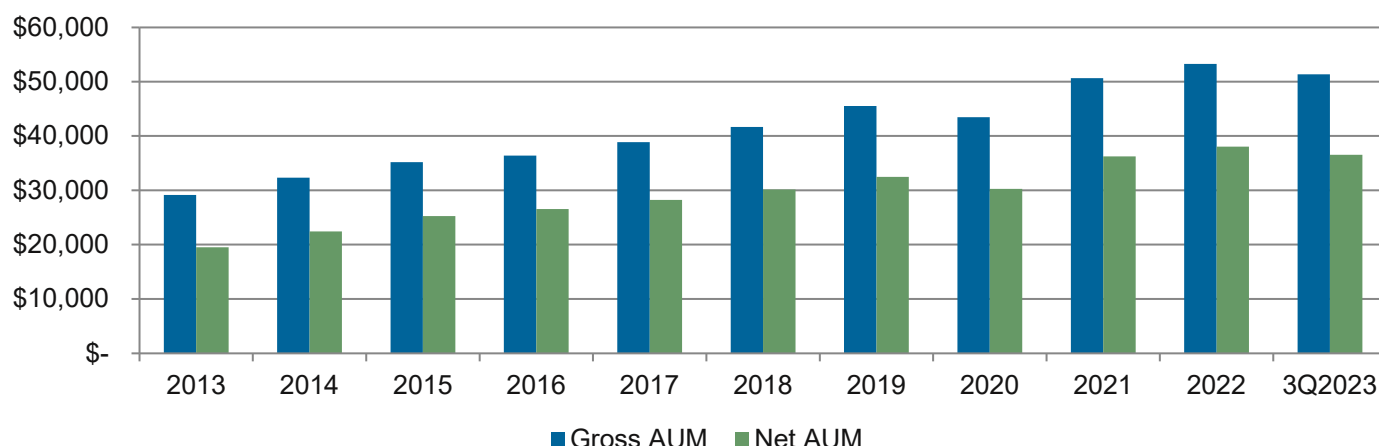
Founded in 1966, Heitman LLC is a global real estate investment management firm. Heitman invests in commercial real estate directly or in publicly traded real estate securities. In 2014, Old Mutual plc, the ultimate parent OMAM Inc., initiated an internal restructuring in which it established three new entities that were inserted into the Old Mutual group's corporate structure, including OM Group (UK) Limited ("OM Group (UK)"), a holding company that was established to hold Old Mutual plc's interest in its US asset management line of business, and OM Asset Management plc ("OM Asset Management"), a public company (and subsidiary of OM Group (UK)) whose shares are traded on the New York Stock Exchange. OM Group (UK) sold approximately 20% of its interest in OM Asset Management plc per an IPO effective October 2014. Additional shares in OM Asset Management were sold by OM Group (UK) per a secondary offering in June 2015, and in another offering in December 2016. In March of 2017, Old Mutual announced that it had reached agreement with a third party, HNA Group Co., in which HNA would acquire a significant portion of its remaining share interest in OMAM. As a result of the share sales and the HNA transaction, Old Mutual's holdings in OMAM were ultimately reduced to approximately 5% by year-end 2017, triggering a change in control and presenting the ability for the employee-owners to buy the remaining stake in Heitman, a transaction which closed on January 1, 2018. The only changes to ownership since 2018 have been the number of employee-owners. The employee ownership pool at Heitman is now at 47 individuals. A table highlighting the current owners is located in the Appendix. The addition of new employee owners is evaluated annually by senior officers who are also current owners at Heitman. If an equity owner of the Firm leaves the partnership, whether by death, disability, retirement, or voluntary or involuntary termination, their ownership is reallocated to the current equity owners.

Heitman is headquartered in Chicago and has offices in Los Angeles, New York, London, Luxembourg, Frankfurt, Hong Kong, Tokyo, Melbourne and Seoul. Heitman closed two offices in the last five years, Munich, Germany in 2019, and Warsaw, Poland in 2019. The office in Germany were closed due to the departure of the single employee that office, and the firm no longer focuses on Poland as part of its European strategy. Heitman is comprised of 381 professionals globally.

As of September 30, 2023, Heitman had approximately \$51.3 billion of gross assets under management around the world, with the majority of the assets under management in North America. The table below highlights the firm-wide assets under management over recent years.

<sup>2</sup> The information presented in this document reflects quoted and paraphrased excerpts of material provided to, and reviewed by, Callan, by the Sponsor.

## Heitman –Assets Under Management (\$ millions)



The Fund will be led by Thomas McCarthy and Michael Trench, who will serve co-Portfolio Managers. For Fund VI, Mike Trench has been named co-portfolio manager as part of the succession planning process for Tom McCarthy's role. Previously, Mr. McCarthy served as the Head of Heitman's North American Private Equity Real Estate group, but transitioned that role to Brian Pieracci in March of 2023. Both Mr. McCarthy and Mr. Trench are dedicated to the Fund. Additionally, Colleen Ryan, Assistant Portfolio Manager, is also fully dedicated to the Fund. Mr. McCarthy, Mr. Trench, and Ms. Ryan are all equity owners of the Firm. While the overall North American Private Equity team members are actively involved in the Fund investment process and activities, they are not dedicated to the Fund and are also active on behalf of all of Heitman's North American commingled funds and separate accounts. Certain members of the team have asset management duties for other funds in the HVP series as well as some separate account responsibilities.

The Fund will be overseen by the Heitman North America Private Equity Investment Committee. The Investment Committee will vote on all major Fund decisions and be involved in the ongoing Fund activities and strategy. More detail on the Investment Committee process is included in the Investment Process & Portfolio Management section. The Investment Committee is detailed below. All of the Investment Committee members are also owners of the firm. Full biographies for the Investment Committee and broader team, and an organizational chart, are included in the Appendix. It is important to note that, effective January 1, 2024, Investment Committee member Mary Ludgin transitioned her remaining leadership responsibilities for Global Investment Research to Emi Adachi and Jeff Bingham, who each assumed the role and responsibilities of Managing Director, Co-Head of Global Investment Research. Ms. Ludgin is now Senior Advisor, Investment Research will continue her work with the Portfolio Sustainability Strategies team and serve on various private market Investment Committees, including for HVP VI, and the Global Management Committee.

### Heitman North America Private Equity Investment Committee

Name	Title and Role	Years with Firm	Years Investment Management Experience
Maury Tognarelli	Chief Executive Officer	40	40
Thomas McCarthy	Senior Managing Director, Private Equity – North America, co-Portfolio Manager	40	41
Lewis Ingall	Senior Managing Director, Client Service & Marketing	36	39
Pete Fawcett	Managing Director, Portfolio & Asset Management	37	42

Name	Title and Role	Years with Firm	Years Investment Management Experience
Mary Ludgin	Senior Advisor (Investment Research) and Global Investment Committee Member	34	39

Note: Mr. McCarthy's role on the Investment Committee is as a non-voting member as it pertains to HVP. Portfolio Managers for all Heitman funds do not vote in their respective Investment Committees.

Heitman's Investment Committee approves all major investment decisions including acquisitions and dispositions. The Investment Committee meets weekly or on an as-needed basis. Issues for Investment Committee review are summarized in writing and submitted by an Investment Team that consists of the Account Representative (Senior Portfolio Manager) plus individuals from such disciplines as Acquisitions, Portfolio & Asset Management, Due Diligence & Closing, and Research. The Investment Team must unanimously approve the recommendation provided in the written materials before it is submitted to the Investment Committee for consideration. The Investment Team includes Thomas McCarthy, as Portfolio Manager, and the relevant acquisitions, asset management and research professionals. A typical Investment Committee meeting involves three phases, which may take more than one meeting. In the first phase the Investment Team summarizes all the relevant features of the investment. During the second phase, Investment Committee members ask questions of the Investment Team and this phase continues until all members are satisfied that they understand the investment fully. The third phase is the formal vote to approve or disapprove the investment; a majority of favorable votes is needed for the investment to proceed. Disposition recommendations resulting from the hold/sell analysis process are reviewed and approved by Investment Committee as well. Usually, the Investment Committee identifies a minimum disposition price, above which the Portfolio & Asset Management team has the discretion to execute a sale. If offers fall below the pre-approved disposition price, the portfolio manager must obtain additional approval from the Investment Committee.

The following table highlights, in addition to the asset management and finance team specifically assigned to the Fund, the Heitman North American private equity team members that are expected to be involved in the Fund's investment activities. Acquisitions, Closing and Due Diligence, and Research professionals that are shared resources are only shown at the Senior Vice President level and higher. Note that an additional resource, Maura Keary, Associate in finance and operations, is in the process of transitioning to the team.

#### Heitman North American Investment Team (HVP Dedicated Team in Bold)

Name	Title and Role	Years with Firm	Years Investment Management Experience
<b>Tom McCarthy</b>	<b>Senior Managing Director, Private Real Estate Equity, co-PM</b>	<b>40</b>	<b>41</b>
<b>Mike Trench</b>	<b>Executive Vice President, Portfolio &amp; Asset Management, co-PM</b>	<b>19</b>	<b>19</b>
<b>Colleen Ryan</b>	<b>Senior Vice President, Portfolio &amp; Asset Management, Assistant PM</b>	<b>28</b>	<b>28</b>
Chris Fruy	Senior Vice President, Portfolio & Asset Management (asset management)	11	22
Jim Meyer	Senior Vice President, Portfolio & Asset Management (asset management)	35	35
Ryan Matyas	Vice President, Portfolio & Asset Management (asset management)	12	12
Jenny Schuck	Vice President, Portfolio & Asset Management (asset management)	3	11
<b>Corey Scuglik</b>	<b>Vice President, Portfolio &amp; Asset Management (asset management)</b>	<b>13</b>	<b>13</b>
<b>Andy Borseth</b>	<b>Assistant Vice President, Finance Manager (financial operations and analysis)</b>	<b>4</b>	<b>10</b>
<b>Viviana De La Paz</b>	<b>Assistant Vice President, Finance Manager (financial operations and analysis)</b>	<b>4</b>	<b>12</b>
<b>Charlie Miller</b>	<b>Assistant Vice President, Finance Manager (financial operations and analysis)</b>	<b>4</b>	<b>7</b>

Name	Title and Role	Years with Firm	Years Investment Management Experience
Alexandra Lis	Senior Associate, Acquisitions	3	3
Rick Yorke	Assistant Finance Manager (financial operations and analysis)	5	10
Griffin Gibbons	Senior Associate (financial operations and analysis)	3	3
Larson Robinson	Senior Associate (financial operations and analysis)	6	7
Darsh Tripathi	Associate (financial operations and analysis)	2	3
Maury Tognarelli	Chief Executive Officer	40	40
Mary Ludgin	Senior Advisor (Investment Research) and Global Investment Committee Member	34	39
Lewis Ingall	Senior Managing Director, Client Service & Marketing	36	39
Pete Fawcett	Managing Director, Portfolio & Asset Management	37	42

The Acquisition, Due Diligence & Closing, and Research teams will be involved in executing the Fund strategy. Heitman's North American Acquisition team will focus on sourcing, underwriting and acquiring direct real estate assets on behalf of the Fund. The Acquisitions team is led by Brian Pieracci. Additionally, Heitman has an in-house capital markets expert, David Maki, who leads the Real Estate Debt group and is involved in implementing interest rate hedging strategies and advising on the placement of property- and portfolio-level financing. The Due Diligence & Closing team takes over from the Acquisitions team once an investment has been approved by the Investment Committee. Heitman's Due Diligence & Closing team is led by Tom Kelly. This team is responsible for final negotiation of all acquisition documents, physical and environmental reviews, and verification of all financial, legal and operational aspects of the property.

Over the last five years, Heitman has had more turnover than it typically experiences at the senior level. Generally, this has been due to multiple retirements including Tom Krumwiede, Jerry Claeys, Steve Warsaw, and Howard Edelman. In addition, Helen Garrahy, a residential asset manager who mainly worked on Heitman's core fund, left for a family office launching a residential real estate business. Gretchen DiDomenico in the Closing & Due Diligence group relocated and, while there was an attempt at remote work, ultimately she found another opportunity. Erin Spears, who had joined Heitman from a development partner, left to become the President of the same developer. Dan Dooley left to become the CIO of one of Heitman's housing joint venture partners. There have been three senior hires across each of the major groups, Angela Fabus in Closing & Due Diligence, Joseph Nicchetta in Portfolio & Asset Management, and Jeff Bingham in Research. The Firm has nine planned hires, mostly concentrated in the client service and marketing and accounting/financial reporting roles. The investment team for the Fund is well resourced at this time. See below for a list additions and departures at the Senior Vice President level and above across the Executive, Acquisitions, Due Diligence & Closing, and Research teams.

#### Additions (last 5 years)

Name	Title and Role	Years with Firm	Years Investment Management Experience
Angela Fabus	Senior Vice President, Closing & Due Diligence	2022	21
Joseph Nicchetta	Senior Vice President, Portfolio & Asset Management	2019	44
Jeff Bingham	Managing Director, Co-Head of Global Investment Research	2019	16

#### Departures (last 5 years)

Name	Title and Role	Year Hired	Year Departed	Reason For Departure
Tom Krumwiede	Senior Vice President, Portfolio & Asset Management	2006	2023	Retired

Name	Title and Role	Year Hired	Year Departed	Reason For Departure
Helen Garrahy	Senior Vice President, Portfolio & Asset Management	2010	2023	Other Opportunity
Gretchen Di Domenico	Senior Vice President, Closing & Due Diligence	2014	2022	Other Opportunity
Erin Spears	Executive Vice President, Acquisitions	2018	2021	Other Opportunity
Daniel Dooley	Senior Vice President, Acquisitions	2010	2020	Other Opportunity
Steven Warsaw	Senior Vice President, Portfolio & Asset Management	2009	2020	Retired
Jerry Claeys	Non-Executive Chairman	1977	2019	Retired
Howard Edelman	Executive Vice President, Closing & Due Diligence	1979	2019	Retired

The sponsor co-investment is targeted to be 2% of the total fund raise, not to exceed \$35 million, which is consistent with the prior Fund. For Fund VI, the GP co-invest will be funded in part by a sponsor capital vehicle which Florida State Board of Administration (“SBA”) invests in. The vehicle is a follow on vehicle which was created to invest across Heitman Fund GP co-investments starting with HVP V. The vehicle is 100% passive and there are no GP rights in the entity for Florida SBA. Florida SBA is also a limited partner in HVP VI and will recuse themselves from all Advisory Committee matters that pertain to General Partner/Limited Partner issues. Florida SBA will vote according to their LP interest only. Similar to the relationship Heitman had with OMAM, Florida SBA will provide 90% of the GP capital for HVP VI. In addition to the senior Heitman team, the opportunity to participate in the GP co-investment was provided to any accredited investors within the firm. Heitman expects that there may be up to 100 individuals participating in the co-invest. The table below highlights the personal co-investments from key Heitman professionals within the prior HVP funds.

Name	HVP I Co-Investment	HVP II Co-Investment	HVP III Co-Investment	HVP IV Co-Investment	HVP V Co-Investment
Maury Tognarelli	\$135,559	\$125,000	\$215,671	\$160,000	\$227,400
John Clement	\$135,559	\$125,000	\$215,671	\$150,000	\$101,200
Thomas McCarthy	\$135,559	\$125,000	\$215,671	\$160,000	\$120,200
Lewis Ingall	\$135,559	\$125,000	\$215,671	\$150,000	\$138,400
Mary Ludgin	\$135,559	\$125,000	\$215,671	\$150,000	\$87,400
<b>Total</b>	<b>\$675,000</b>	<b>\$625,000</b>	<b>\$1,078,355</b>	<b>\$770,000</b>	<b>\$674,600</b>

Similar to the arrangement with OMAM, Florida SBA will receive 25% of the carried interest with the remaining 75% allocated to Heitman employees who invest in the Fund on a pro rata basis and additional units are allocated to employees working on execution of the Fund strategy, including portfolio management, client service, acquisitions, accounting, and research. Historically the majority of units have been unallocated and held for additional distribution.

All carried interest that corresponds to employee co-investment is vested immediately, while all other carried interest allocations vest evenly over five years. If an employee is terminated with cause, he/she will forgo all units not associated with their co-investment. If a Key Person departs prior to the commitment period, all carried interest allocations will be forgone. For any employee that received carried interest but does not participate in the co-investment, all carried interest units vest evenly over five years.

## Historical Performance

Since the inception of the Heitman Value Partners Funds, the Team has sponsored and managed five real estate funds. The following tables provide a summary of the prior commingled funds as of September 30, 2023.

## Prior Fund Performance as of September 30, 2023 (\$ millions)

Fund/Vehicle	Fund I	Fund II	Fund III	Fund IV	Fund V
Vintage Year	2004	2007	2014	2018	2020
Return Objective (net)	14-16%	12-14%	12-14%	12-14%	12-14%
Commitments (mm)	\$400	\$800	\$421	\$873	\$1,375
# Investments	105	202	128	1,316	1,475
# Realized	105	202	128	34	0
Current Leverage	N/A	N/A	N/A	51%	56%
Peak Leverage	97%	75%	65%	58%	58%
Called Capital (mm)	\$397	\$772	\$396	\$810	\$726
Projected Calls (mm)*	N/A	N/A	\$0	\$10	\$85
Distributions (mm)	\$508	\$1,133	\$555	\$565	\$0
Portfolio NAV (mm)	N/A	N/A	N/A	\$604	\$740
Realized IRR (gross)	6.1%	9.6%	17.9%	20.0%	NP
Realized Multiple (gross)	1.3x	1.5x	1.5x	1.6x	NP
Fund Level Since Inception IRR (gross/net)	6.1% / 4.9%	9.6% / 8.6%	17.9% / 15.3%	2.7% / 1.6%	NP
Fund Level Since Inception Multiple (gross/net)	1.3x / 1.3x	1.5x / 1.5x	1.5x / 1.4x	1.5x / 1.4x	NP
Projected IRR (gross/net)	N/A	N/A	N/A	14.0%-16.0% / 12.0%-14.0%	11.0%-13.0% / 9.0%-11.0%
Projected Equity Multiple (gross/net)	N/A	N/A	N/A	1.6x / 1.5x	1.6x / 1.5x

\*Based on investments closed as of 9/30/23

Fund I, a 2004 vintage year commingled fund, and Fund II, a 2007 vintage year fund, are both completely realized. Fund III, a 2014 vintage year fund, is 90% realized based on the number of investments. Heitman projects that the final Fund III asset will be sold by the end of 2021. Fund IV is a 2018 vintage year fund with more than 50% of capital left to be called. Fund I was comprised of thirteen operating partner relationships across various geographies and property types including specialty. All but four investments in the Fund generated positive performance. Fairfield, Desert Shadows, Colonie Center, and Ramco-Gershenson did not return capital, generating a -100%, -47.6%, -32.0%, and -4.9% IRR, respectively. Fairfield was an apartment renovation and repositioning strategy with joint venture partner Fairfield Partners that acquired two apartment assets in Scottsdale, Arizona in 2006. The Desert Shadows Investment was a single condominium conversion strategy, also in Scottsdale, Arizona in 2006. The Phoenix market was one of the most severely impacted housing markets in the country during the Global Financial Crisis ("GFC"), and both the unit upgrades taking place at Fairfield and conversions at Desert Shadows were just underway at the onset of the GFC. Colonie Center was a lifestyle center joint venture with small public company. While the investment did have success in attracting some new tenants, the joint venture partner had a limited record in mall turnarounds and also experienced significant departures. Due to the onset GFC, further lease up was stalled and the team tried to execute a workout with the lender. Ramco-Gershenson was a joint venture with a Detroit-based community center owner operator/developer. While one of the two properties in the joint venture was successful, the other property has a significant repositioning plan and while it had been re-tenanted, the sales process was unsuccessful in the first three tries between 2011 and 2013. Due to a loan due on the property, it was conveyed to the lender via deed in lieu of foreclosure six months after the final sales effort.

HVP Fund II is comprised of 21 joint venture relationships and six direct investments. Six investments have produced negative returns including Aqualea Resorts & Residences, which returned -100%. Aqualea was a joint venture with NJR Development Company to develop a resort and high-rise hotel condominium. HVP's investment was structured as a \$38 million mezzanine loan. While the construction for the investment was completed on time and on budget, the hotel condominium sales stalled and ultimately Heitman concluded that the hotel condominium strategy was not viable in the market environment. The Fund switched strategies and decided to operate as a pure hotel investment; however, the projected cash flows from a pure hotel investment didn't support the senior loan balance. In December 2012, a settlement agreement was entered into which dismissed the lawsuit filed by the borrower; the agreement also mutually released HVP II, the borrower, from all claims related to the project, including a release of the mezzanine mortgage and related collateral. Heitman established a loan loss reserve for the remaining balance of the mezzanine loan at the end of 2010.

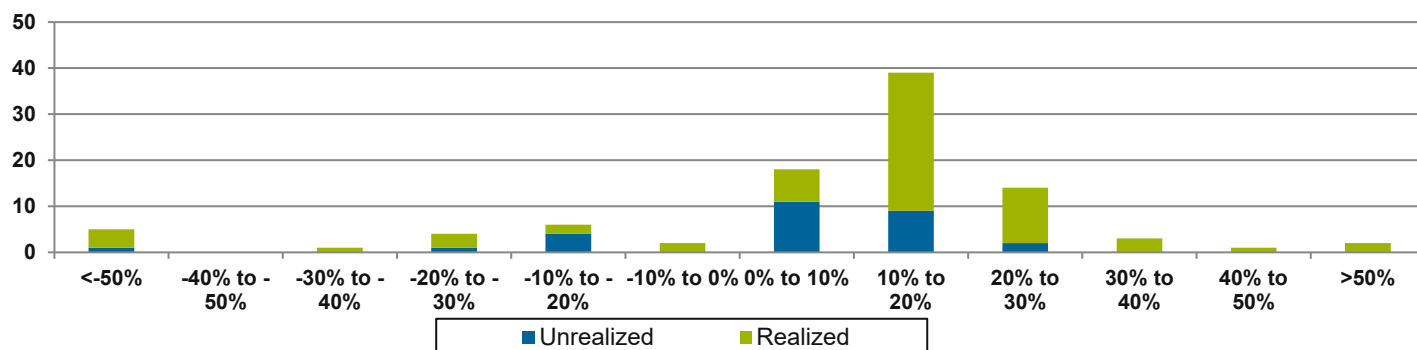
Fund III is comprised of 14 joint venture relationships and one direct investment. The last investment was sold in December 2021. All investments have delivered positive returns. All individual investments delivered returns of 12% gross or above. The Fund exceeded return targets, delivering a 15% net return.

Fund IV, a 2018 vintage year fund, is comprised of 21 joint ventures and five direct investments. A number of the joint ventures were with repeat operating partners such as Pollack Shores for apartments, CubeSmart for self-storage, and Montecito Medical for medical office. Twelve of the 26 investments have been realized. Currently Fund level returns since inception are 15.1% net, and projections are in line with Fund targets at a 12% to 14% net IRR. Generally, assets have been performing well. However, there are a handful that have experienced lower than underwritten returns due to some effects of Covid and the current high interest rate environment. MedProperties JV is a hospital joint venture with a portfolio aggregation strategy. Net returns are currently projected to be just below a 9% IRR due to the interest rate impact on the net lease structure of hospitals. If interest rates decrease, there would likely be additional upside. Quadrant Investment Properties JV and R2 JV are both office ventures in Dallas and Chicago, respectively, purchased before Covid. The ongoing issues with return to work have affected both investments, which are projected to deliver low single digit returns. The two investments are the only traditional office in Fund IV and represent approximately 6% to 7% of total equity.

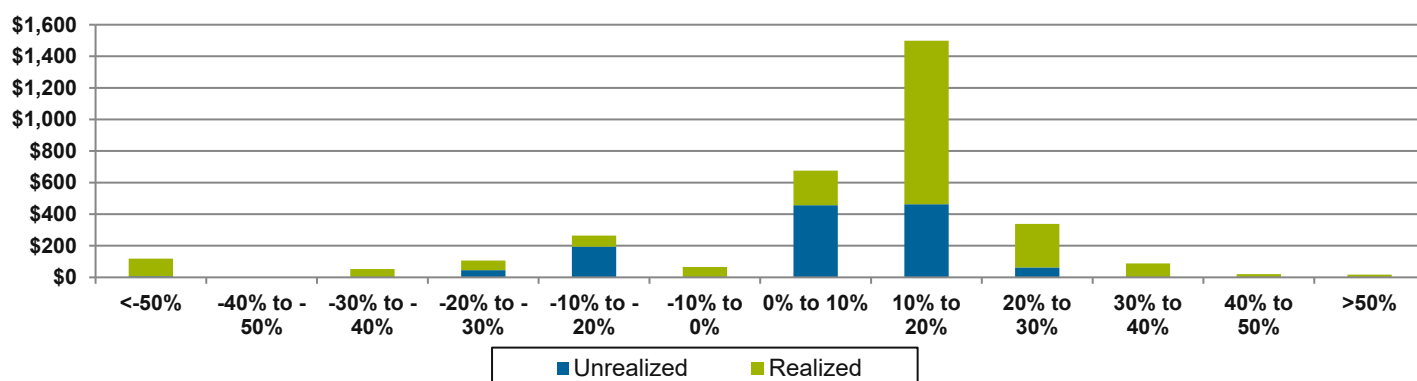
Fund V, a 2020 vintage year fund, is currently in its investment period and is comprised of 15 joint ventures. While all investments are projected to deliver positive returns, due to the change in interest rate environment during the Fund's investment period, there are a handful of investments that are projected to deliver returns below 10%. Across the portfolio, the team has adjusted exit cap rate projections by 25 to 50 basis points to reflect the change in rates. Rent growth assumptions have changed since acquisition, specifically for Grand Peaks and Redwood Center, two apartment repositioning investments. Sylvan Road, a single family rental venture has also been affected by interest rates as the portfolio buyer pool is not as robust as it was at acquisition. Heitman may get a lift in returns from retail sales of the asset, but those assumptions are not currently included in the projections. Another venture with a similarly small buyer pool is the CubeSmart self-storage joint venture. In addition to having a smaller portfolio buyer pool than underwritten, rent growth has slowed for self-storage. The portfolio is expected to deliver returns at the low end of the target range.

### **Distribution of Returns**

The following graphs highlight the IRR distribution for realized and unrealized investments from all investments in the Heitman Value Partners Fund series. The first graph is categorized by number of investments and is based on since inception net returns. The majority of assets have delivered positive returns, 12 of 62 realized investments and 6 of 28 unrealized have delivered a zero or negative return as of September 30, 2023.



The following IRR distribution graph is categorized by the amount of equity invested and is based on since inception net returns. From a total invested dollar standpoint, a vast majority of the equity invested has returned to date a positive net IRR. Less than 20% of equity in realized investments has delivered a zero or negative return. Similarly, for unrealized investments, 20% of equity has delivered a zero or negative net return as of September 30, 2023.



## Summary of Key Terms

The following is a summary of principal terms of HVP VI compared to HVP V. Terms have largely remained unchanged from the prior fund. The fund size has grown, but in line with expectations for a fifth fund. There have been some adjustments to fund size and key person. However, these adjustments are consistent with the fund series' growth and succession planning.

### Terms Comparison to Prior Fund

	Fund VI Terms	Comparison to Fund V Terms
<b>Target Returns</b>	12-14% Net IRR	No Change
<b>Target Fund Size</b>	\$1.75 billion; \$2 billion hard cap	\$1 billion; \$1.25 billion hard cap
<b>Sponsor Commitment</b>	2% of equity commitments not to exceed \$35 million	2% of equity commitments not to exceed \$20 million
<b>Management Fee</b>	For a commitment of at least \$75 million: 90 basis points per annum of the aggregate capital contributions of such Limited Partner	No Change to term



Fund VI Terms		Comparison to Fund V Terms
	10 bps reduction in management fee for those that close before May 20, 2024. MSPERS' total expected management fee would be 0.80%.	
<b>Waterfall</b>	At the Fund level: 100% of Capital Contributions 9% preferred return Thereafter 80/20 LP/GP	No change
<b>Investment Period</b>	3 years from Expiration Date. The Expiration Date includes any extensions to the fundraising period approved by the Advisory Committee or majority of Limited Partners.	3 years from final close
<b>Fund Term</b>	7 years from expiration of investment period; may be extended to 9 years with Advisory Committee approval	No change
<b>Investment Restrictions</b>	<p>Property Type</p> <ul style="list-style-type: none"> <li>No more than 40% of the aggregate Commitments may be invested in any one property type.</li> <li>No restrictions on specialty property types outside of student housing, senior housing, and self-storage.</li> <li>No more than 7.5% of the aggregate Commitments may be invested in hotels.</li> </ul> <p>Market</p> <ul style="list-style-type: none"> <li>The Fund generally will not invest outside the United States (including its territories); provided that the Fund may invest up to 10% of the aggregate Commitments in Canada and Mexico.</li> </ul> <p>Investment Size</p> <ul style="list-style-type: none"> <li>No more than 15% of aggregate commitments in any single property</li> </ul> <p>Development</p> <ul style="list-style-type: none"> <li>The GP will not cause the Fund to invest more than 30% of the Commitments in Development Properties, unless exceeding such limit is deemed appropriate by the GP as a result of unforeseen cost overruns. ("Development Properties" means properties in which the Fund commits to invest, directly or indirectly, and which are to be developed from the ground up.)</li> <li>The Fund may not invest in unentitled land or encumbered land unless the unentitled or encumbered land represents a non-strategic component of a Real Estate Asset that would otherwise be an Authorized Investment and represents 15% or less of the total cost of the Portfolio Investment.</li> </ul> <p>Debt</p> <ul style="list-style-type: none"> <li>No more than 33% of the aggregate Commitments may be invested in debt investments.</li> </ul> <p>Investment type</p>	<p>Property Type</p> <ul style="list-style-type: none"> <li>No more than 50% of the aggregate Commitments may be invested in the specialty property sector and no more than 40% of the aggregate Commitments may be invested in any one property type, excluding specialty (the four property types are residential, industrial, office, retail).</li> </ul> <ul style="list-style-type: none"> <li>No change</li> <li>No change</li> </ul> <p>Market</p> <ul style="list-style-type: none"> <li>No change</li> </ul> <p>Investment Size</p> <ul style="list-style-type: none"> <li>No change</li> </ul> <p>Development</p> <ul style="list-style-type: none"> <li>No change</li> <li>No change</li> </ul> <p>Debt</p> <ul style="list-style-type: none"> <li>No change</li> </ul> <p>Investment type</p> <ul style="list-style-type: none"> <li>No change</li> </ul>

Fund VI Terms		Comparison to Fund V Terms
	<ul style="list-style-type: none"> <li>The Fund may not invest in securities that the GP determines in good faith are uncovered options or uncovered derivative securities.</li> </ul>	
<b>Leverage Limitations</b>	Fund level: 60% of gross fair property value Investment level: 80% of gross fair property value.	No change
<b>Subscription Line</b>	The Fund (through one or more subsidiaries) expects to enter into a credit facility in order to fund Investments or pay expenses through borrowing in lieu of, or in advance of or contemporaneously with, capital contributions. Any borrowing made under a credit facility that is secured by Commitments must be repaid within nine months of such borrowing.	No change
<b>Key Persons</b>	Thomas D. McCarthy, Michael Trench, Lewis S. Ingall, Mary K. Ludgin, and Maury R. Tognarelli	Michael Trench was added to Key Persons and John Clement was removed.
<b>Key Person Event</b>	If at any time during the Commitment Period (1) both Thomas D. McCarthy and Michael Trench or (2) any two or more of the "Key Persons" listed below (other than Thomas D. McCarthy and Michael Trench) (i) cease(s) to be employed by affiliates of the General Partner for any reason, (ii) suffer(s) a disability for a duration of at least 90 days, (iii) sell(s) or transfer(s) all or substantially all of his or her direct or indirect interest in the General Partner, or (iv) cease(s) to participate in the management of the Fund (in the case of clause (1), a "Portfolio Manager Event", and in the case of clause (2), a "Key Person Event"), the General Partner will have the right for a period of ninety (90) days to cure such Portfolio Manager Event or Key Person Event by replacing the applicable individual(s) with replacements approved by Investor Advisory Committee or by a majority in interest of the Partners (excluding the General Partner and its affiliates). If a Portfolio Manager Event or Key Person Event is not cured within the applicable ninety (90)-day period, the Limited Partners will not have any further obligation to make capital contributions to fund the purchase of Investments other than Follow-On Contributions (as defined in the Partnership Agreement) and capital contributions to complete any Investment with respect to which a binding letter of intent or agreement has been executed or with respect to which a non-refundable deposit or other binding commitment was made prior to the effective date of such suspension of the Limited Partners' funding obligations (the "Suspension Mode") unless and until the Portfolio Manager Event or Key Person Event is cured. If the Fund enters Suspension Mode and the applicable Portfolio Manager Event or Key Person Event has not been cured within nine (9) months of the date on which the Fund entered Suspension Mode, the Commitment Period will terminate unless extended with the approval of the Investor Advisory Committee or by a majority in interest of the Partners (excluding the General Partner and its affiliates). A Suspension Mode may be terminated at any time by two-thirds in interest of the Partners.	Previously, clause (1) was only Thomas McCarthy and clause (2) noted other than only Thomas McCarthy
<b>Sponsor Removal</b>	Majority in interest vote with cause; 2/3 vote without cause.	No change

	Fund VI Terms	Comparison to Fund V Terms
Organizational Expense	\$1.75 million	Fund V expenses were \$1.0 million

## Affiliate and Legal Activity

### Affiliate Activity

Heitman uses its capital markets group for debt sourcing. It does not use affiliates for property management as its joint venture partners generally provide those capabilities. Fees typically range from 25 to 50 basis points of total financing. Heitman has charged the following fees to each Fund across the Fund series for debt brokerage services:

Fund	Fees Paid
HVP III	\$888,674
HVP IV	\$2,517,403
HVP V	\$2,500,716
<b>Total</b>	<b>\$5,906,793</b>

### Legal Activity

Heitman Capital Management, LLC registered as an SEC Investment Adviser in September 1980. In the Fourth Quarter of 2023, the SEC began a routine examination of Heitman Capital Management, LLC, the entity under which our private equity and debt groups operate. The examination is currently ongoing.

## Fundraising Status

Heitman held a first close on February 20, 2024 with \$500 million in investor commitments. Investors will have until May 20, 2024 to participate in the first close incentive. Heitman anticipates up to an additional \$300 million closing prior to May 20<sup>th</sup>.

## Recommendation

Callan recommends a commitment of \$75 million to Heitman Value Partners VI, L.P. as an appropriate investment for Mississippi Public Employees' Retirement System. Our recommendation is based on the specific strength and risk considerations summarized in the below and detailed in the memorandum.

Strengths	Detail
<b>Employee-Owned Firm</b>	Heitman is 100% employee-owned with a growing list of employees that participate in ownership. The number of employee-owners increased from 37 during the HVP V fundraise to 47 during the HVP VI fundraise.
<b>Strong Succession Planning for Tom McCarthy</b>	There is a clear path to succession for the portfolio manager role as longtime team member Mike Trench has assumed co-portfolio manager duties. He and Mr. McCarthy have worked together over multiple funds. Additionally, another longtime team member, Colleen Ryan, was formally named assistant portfolio manager, strengthening the leadership on the PM team. Both Mr. Trench and Mr. McCarthy are named Key Persons for the Fund. Mr. McCarthy has indicated he would continue to be fully engaged with Fund activities through the Investment Period of the Fund.
<b>Proven Investment Strategy and Process</b>	The Fund employs a demonstrated investment strategy that is consistent with its predecessor funds. The team has a demonstrated process to execute programmatic joint ventures with experienced partners in property types that include medical office and self-storage in addition to traditional industrial and multi-family investments.
<b>Favorable Fee Structure</b>	MSPERS will be eligible for an existing investor discount plus an additional 10 basis point discount on management fees for investors that participate in the first close, equating to a 0.80% management fee, which is

Strengths	Detail
	favorable compared to peers. The distribution waterfall is favorable compared to peers as the hurdle is 9% and there is no GP catch up.
<b>No Unfavorable Changes to Terms</b>	The Fund terms are consistent with those of prior funds, in line with market standards, and do not include any changes that are unfavorable to Limited Partners. The Fund terms changed very minimally since the prior Fund.
<b>Firm Allocates Carried Interest to Employees Based on Merit</b>	While there is a component of the carried interest allocation that awards points pro rata with co-investment, most of the carried interest allocated to the team is awarded based on merit, including a holdback of points to award later in Fund life. Additionally, there is no formal limit to title that is eligible to earn carried interest, and Heitman has historically awarded both an associate and assistant vice president points.
<b>Firm Continues to Expand GP co-investment</b>	Heitman expects a potential pool of employees as large as 100 to participate in the GP Co-invest. This is an increase from HVP VI.
<b>Strong Valuation Practices for Closed End Fund</b>	Heitman values each property internally on a quarterly basis and externally once every three years. A number of peers no longer offer external valuations.
<b>Seat on Limited Partner Advisory Committee</b>	Although MSPERS' commitment is lower than the amount necessary to receive an LPAC seat, Heitman has offered a voting seat to MSPERS.
Risks	Detail
<b>No Limitation on Specialty Sector Investing</b>	The Fund is no longer limited on how much it can invest in specialty property sectors. HVP V was limited to no more than 50% of commitments. However, the Fund series has always had a significant exposure to specialty property types. Specifically, this shouldn't be a significant change as medical office has historically formally been included under office, which is not a specialty property sector, in the Fund documents.
<b>Fund V Performance is Projected to Deliver Returns at the Low End or Below Target</b>	Fund V began investing in 2020 and has experienced a significant change in interest rate environment during its investment period. This has led to a portfolio-wide adjustment to exit cap rates, affecting returns. However, no investments are projected to deliver negative returns, and there is upside available as interest rates shift over the life of the Fund.
<b>Third Party Participation in GP Co-Investment</b>	Florida State Board of Administration will participate in the GP co-investment through a sponsor capital vehicle. The breakout of carried interest and co-investment between Heitman professionals and Florida SBA is the same as it was when OMAM participated in the co-investment and carried interest.
<b>Potential Conflict of Interest with Florida SBA</b>	As a participant in the GP Co-investment and a Limited Partner and Advisory Committee member for HVP VI, there may be a conflict of interest with any GP/LP issues that arise. In these cases, Florida will recuse themselves from any voting.



Organization Chart

Heitman North American Value Series  
Supported by Extensive Firm Resources

HEITMAN

NORTH AMERICAN RESEARCH TEAM

- Emi Adachi**  
MANAGING DIRECTOR,  
CO-HEAD

**Olin Needle**  
EXECUTIVE VICE PRESIDENT

**Erik Hansen**  
VICE PRESIDENT

**Jacob Anderson**  
ASST. VICE PRESIDENT

**Sam Carlson**  
SR. ASSOCIATE

**Shauncarlos Miller**  
ASSOCIATE
- Jeff Bingham**  
MANAGING DIRECTOR,  
CO-HEAD

**Michael Carney**  
VICE PRESIDENT

**Daniel Vickerman**  
VICE PRESIDENT

**Dan Sindelar**  
ASST. VICE PRESIDENT

**Annie Trucco**  
SR. ASSOCIATE

PROPERTY TYPE SPECIALISTS

- INDUSTRIAL/OFFICE**  
**Tony Ferrante**  
EXECUTIVE VICE PRESIDENT

**SELF-STORAGE**  
**Pascal Souvenir**  
SR. VICE PRESIDENT

**MEDICAL OFFICE**  
**Jim Meyer**  
SR. VICE PRESIDENT
- APARTMENT**  
**Melanie Varrato**  
SR. VICE PRESIDENT
















**RETAIL**  
**Bob Koys**  
SR. VICE PRESIDENT

**STUDENT HOUSING**  
**Theresa Ranck**  
SR. VICE PRESIDENT

COMPLIANCE

- Lauren Walsh**  
SENIOR VICE PRESIDENT

HVP VI TEAM

 <b>Tom McCarthy</b> CO-PORTFOLIO MANAGER 40   41	 <b>Mike Trench</b> CO-PORTFOLIO MANAGER 19   19	 <b>Colleen Ryan</b> ASSISTANT PORTFOLIO MANAGER 28   28
 <b>Chris Fruy</b> ASSET MANAGER 11   22	 <b>Jim Meyer</b> ASSET MANAGER 35   35	 <b>Ryan Matyas</b> ASSET MANAGER 12   12
 <b>Jenny Schuck</b> ASSET MANAGER 3   11	 <b>Corey Scuglik</b> ASSET MANAGER 13   13	 <b>Andy Borseth</b> FINANCE MANAGER 4   10
 <b>Viviana De La Paz</b> FINANCE MANAGER 4   12	 <b>Charlie Miller</b> FINANCE MANAGER 4   7	 <b>Rick Yorke</b> ASST. FINANCE MANAGER 5   10
 <b>Griffin Gibbons</b> SENIOR ASSOCIATE 3   3	 <b>Larson Robinson</b> SENIOR ASSOCIATE 6   7	 <b>Darsh Tripathi</b> ASSOCIATE 2   3

INVESTMENT COMMITTEE

- Maury Tognarelli**  
CEO & CIO (CHAIR)
- Mary Ludgin**  
SENIOR ADVISOR
- Lewis Ingall**  
CLIENT SERVICE & MARKETING
- Pete Fawcett**  
PORTFOLIO & ASSET MANAGEMENT

SUPPORTED BY  
THE HEITMAN PLATFORM

- ACQUISITIONS (24)**
- CLOSING & DUE DILIGENCE (11)**
- FINANCIAL OPERATIONS & ANALYSIS (54)**
- PORTFOLIO & ASSET MANAGEMENT (44)**
- CAPITAL MARKETS (4)**
- CLIENT SERVICE & MARKETING (29)**

years at Heitman | years experience

As of January 1, 2024  
For illustrative purposes. Not a hierarchical representation.

Confidential

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## Biographies

Name/Title	Biography
<b>Maury R. Tognarelli, Chief Executive Officer</b>	<p>Maury is the Chief Executive Officer of Heitman. He is a member of the firm's Board of Managers and Global Management Committee, and also chairs the Private Equity and Debt Investment Committees. His responsibilities include day-to-day management of the firm's operations and its investment activity. Maury started his career at Heitman as an Investment Analyst in the firm's North American Private Equity group.</p> <p>Maury received a BS in real estate finance from Indiana University's Kelley School of Business. He is a member of the Pension Real Estate Association and serves on the Board of Trustees for the Latin School of Chicago.</p>
<b>Pete Fawcett, Managing Director – North American Portfolio &amp; Asset Management</b>	<p>Pete is a Managing Director in Heitman's Portfolio &amp; Asset Management group. He is an equity owner of the firm and a member of the firm's Board of Managers, North American Private Equity and Debt Investment Committees, and North American Private Equity Valuation Committee. Since joining Heitman in 1987, Pete has held a variety of roles during his tenure at the firm, including acquisitions, client service &amp; marketing, and portfolio &amp; asset management responsibilities. Prior to joining Heitman, Pete was a lending officer in the Real Estate Department at Continental Bank (subsequently acquired by Bank of America).</p> <p>Pete received a BA from Vanderbilt University and an MBA from Northwestern University.</p>
<b>Lewis Ingall, Senior Managing Director – Client Service and Marketing</b>	<p>Lewis is Senior Managing Director of Heitman's Client Service &amp; Marketing Group and an equity owner of the firm. He is a member of the firm's Board of Managers, Global Management Committee, and Private Equity and Debt Investment Committees. In addition, he was a Co-Portfolio Manager of the first fund in the Heitman Value Series. He started his career at Lehman Brothers, Inc. as a member of the corporate finance department, concentrating on mergers and acquisitions and real estate capital markets. In 1988, he joined the acquisitions group of JMB Realty as an associate. After the 1994 merger of JMB and Heitman, Lewis became a senior member of the firm's combined investment group working on the origination, underwriting and execution of transactions. During his acquisitions tenure, Lewis was involved in the investment of over \$3.5 billion and supervised the firm's team of analysts. In 2001, Lewis was named to lead a newly formed client service and marketing group for all of Heitman's activities.</p> <p>Lewis received a BA in economics, history and government from Wesleyan University and an MBA from the Graduate School of Business at Stanford University. He serves on the Board of Directors for AFIRE and the Board of Directors of The Erikson Institute, a university conferring advanced degrees in the field of early childhood development. Among other professional affiliations, Lewis is a member of the Pension Real Estate Association, Urban Land Institute, and the International Council of Shopping Centers. Lewis is a Series 7, 24, 66, and 79 Registered Representative.</p>
<b>Mary Ludgin, Senior Advisor</b>	<p>Mary Ludgin is a Senior Advisor to Heitman and an equity owner of the firm. She is a member of the firm's Global Investment and Global Management Committees. She is responsible for overseeing the firm's work in the realm of sustainability and serves as editor of the series on climate risk that Heitman authored in collaboration with the Urban Land Institute (ULI). The fourth report in that series was released in 2023; it focused on climate-risk disclosures. Prior to transitioning into her role as an advisor, Mary was Senior Managing Director and Heitman's Head of Global Investment Research, a position she held for over 25 years.</p> <p>Mary served as a Global Trustee of ULI and as chair of ULI's Chicago District Council. She previously served as Chair of the Pension Real Estate Association, Chair of the Board of ULI's Randall Lewis Center for Sustainability in Real Estate, President of the National Council of Real Estate Investment Fiduciaries, and President of the Real Estate Research Institute. Mary is the recipient of several industry awards, including the 2019 PREA James A. Graaskamp award, which recognizes researchers whose work contributes to the common body of knowledge regarding real estate investment, and the 2023 Goldie Initiative Shero Award for her career achievements in commercial real estate and commitment to helping other women succeed in the industry.</p> <p>Mary holds an AB from Vassar College and an MA and Ph.D. from Northwestern University.</p>
<b>Thomas Mccarthy, Senior Managing Director – North American Private</b>	<p>Tom is a Senior Managing Director in Heitman's North American Private Real Estate Equity group and an equity owner of the firm. He is a member of the firm's Board of Managers, Private Equity Valuation Committee, and North American Private Equity Investment Committee. Tom serves as the Co-Portfolio Manager for the funds in the Heitman Value Series. Tom began his career with Ernst &amp; Whinney (now EY) before joining the</p>



portfolio management group of JMB Institutional Realty in 1984. After the 1994 merger of JMB and Heitman, he became a senior member of the portfolio management group.

Tom received a BB from Western Illinois University and is a CPA. He is a Series 7, 24, 63, 79, and 99 Registered Representative. He is also an active member of the Advisory Council at Northwestern Medicine's Malnati Brain Tumor Institute.

**Mike Trench,  
Executive Vice  
President – North  
American Portfolio  
& Asset  
Management**

Mike is an Executive Vice President in Heitman's Portfolio & Asset Management group, Co-Portfolio Manager for the Heitman Value Series, and an equity owner of the firm. His responsibilities include oversight of fund strategy, business plan execution, strategic acquisition, and disposition activity, as well as investor and joint venture partner relations. Previously, he was part of Heitman's North American Acquisitions and Asset Management groups, where he was responsible for the identification, origination, and ultimate business plan execution of various value-add investment programs across North America. Mike has been involved in real estate transactions across the country with respect to a variety of property types (retail, residential, self-storage, office, industrial) and investment structures (investment joint ventures, mezzanine financing, and 100% free and clear acquisitions).

Mike received a BS in Finance with a specialization in Real Estate and Urban Economics from the University of Illinois at Urbana-Champaign.

**Colleen M. Ryan,  
Senior Vice  
President – North  
American Portfolio  
& Asset  
Management**

Colleen is a Senior Vice President in Heitman's North American Portfolio & Asset Management group and an Assistant Portfolio Manager for the Heitman Value Series. She is also an equity owner of the firm. Colleen is involved with all aspects of fund administration and oversees a team of asset managers and finance professionals. Her responsibilities also include asset management for a portfolio of investments where she develops and monitors strategic business plans, coordinates and oversees property acquisitions and dispositions, and directs all aspects of property level leasing and operations. Colleen began her career in Heitman's Investor Accounting department, where she was responsible for all reporting and analysis for a large separate account.

Colleen received a BBA in Accounting from Loyola University Chicago and is a CPA.

**Christopher Fruy,  
Senior Vice  
President – North  
American Portfolio  
& Asset  
Management**

Chris is a Senior Vice President and Asset Manager in Heitman's North American Portfolio & Asset Management group, and an equity owner of the firm. His responsibilities include asset management, and creating and monitoring annual budgets and strategic business plans for assets within Heitman's commingled funds. In his previous role in Heitman's Research group, Chris was responsible for the analysis of the North American apartment, office and senior housing sectors, assisting with new acquisitions and investment strategy, targeting markets for acquisition, conducting market and property-level research for potential investments, and providing input for asset valuations. Additionally, he led research on macroeconomic and capital markets trends to shape major investment and portfolio strategies. Chris also has extensive market research and investment strategy experience in the industrial, office and retail sectors. Before joining Heitman, he served as a senior manager of research for American Realty Advisors and was a manager of market research and analysis with Equity Office Properties. Chris is currently an active member of NCREIF, serving as a co-chair of NCREIF's Research Committee.

Chris received a BS in Accountancy from the University of Illinois and is a CPA.

**Jim Meyer, Senior  
Vice President –  
North American  
Portfolio & Asset  
Management**

Jim is a Senior Vice President and Asset Manager in Heitman's North American Portfolio & Asset Management group. He manages both separate account and commingled fund portfolios and has experience in all property types, but currently specializes in medical office investments. Jim is responsible for developing and monitoring strategic business plans, as well as coordinating and overseeing property acquisitions, dispositions and refinancings. He also directs all aspects of property-level leasing and operations. Prior to joining the firm, he was with the accounting and consulting firm of Ernst & Whinney (now EY).

Jim received a BS from Marquette University and is a CPA.

**Ryan Matyas, Vice  
President – North  
American Portfolio  
& Asset  
Management**

Ryan is a Vice President and Asset Manager in Heitman's North American Portfolio & Asset Management group. His role consists of managing the leasing and operations of industrial and office assets owned by separate account clients and commingled funds. Ryan oversees the quarterly valuation process of Heitman's US industrial portfolio consisting of nearly 50 million square feet. His responsibilities include analyzing trends in the industrial and office sector assets as well as creating cash flow projection scenarios and valuation implications for new leasing. Ryan began his career at Heitman in the Investor Accounting group.



Ryan received a BBA and MS in Accountancy from Western Michigan University's Haworth College of Business. He belongs to the National Association of Industrial and Office Parks (NAIOP) and is an active member of NAIOP's National Market perspective forum.

**Jenny Schuck, Vice President, Finance Manager**

Jennifer is a Vice President in Heitman's Portfolio & Asset Management group for the Heitman Value Series. Her responsibilities include overseeing the execution of business plans established for all acquisitions, monitoring property performance, and collaborating with operating & capital partners throughout the investment period. Prior to joining Heitman, Jennifer worked in capital markets & asset management roles in the real estate industry. Most recently, she served as a Portfolio Manager at FPA Multifamily LLC, where she was responsible for managing a portfolio of value-add, multifamily assets located in the Midwest region of the United States. Jennifer received a BS in Finance from Miami University.

**Corey Scuglik, Vice President, Finance Manager**

Corey is a Vice President and Asset Manager in Heitman's North American Portfolio & Asset Management group. He is responsible for asset management and portfolio analysis for the Heitman Value Series. Corey develops and monitors strategic business plans, coordinates and oversees property acquisitions and dispositions and directs all aspects of property level leasing and operations. He focuses on apartment, student housing, and self-storage properties, while also assisting with Fund level analysis. Corey began his professional career with Heitman's Investor Accounting and Financial Operations & Analysis departments, where he was responsible for all reporting and analysis for the HART fund and the Heitman Value Series. Corey received a BA and MS in Accounting from Michigan State University's Eli Broad College of Business.

**Andy Borseth, Assistant Vice President – Financial Operations & Analysis**

Andy is an Assistant Vice President, Finance Manager in the Financial Operations & Analysis group for the Heitman Value Series. His responsibilities include both quarterly and annual financial reporting, annual audits, and quarterly property valuations. Prior to joining Heitman, Andy worked for Altus Group, primarily focused in the valuation space for all core property types. Andy received a BA from the University of St. Thomas in Minnesota and a MS from the University of Denver.

**Viviana De La Paz, Assistant Vice President – Financial Operations & Analysis**

Viviana is an Assistant Vice President, Finance Manager in Heitman's Financial Operations & Analysis group. Her responsibilities include quarterly financial reporting, property and debt valuations, and oversight of annual audits for funds in the Heitman Value Series. She also works on due diligence reviews of real estate acquisitions, dispositions and other projects that assist the Due Diligence team. Previously, Viviana worked at Walton Street Capital, LLC as an Assistant Controller in their Financial Reporting group. Viviana received a BS in Accounting and Business Management from DePaul University and is a CPA.

**Charlie Miller, Assistant Vice President – Financial Operations & Analysis**

Charlie is an Assistant Vice President and Finance Manager in Heitman's Financial Operations & Analysis group for the Heitman Value Series. His responsibilities include financial analysis and reporting for Heitman Value Series investments, preparing internal valuations, reviewing external valuations, preparing various analyses used to support the Client Service & Marketing groups, GIPS compliance, and assisting in the annual budget processes. Prior to joining Heitman, Charlie worked as a Senior Associate on the EVS team at KPMG, which focused on real estate valuation. Charlie received a BBA from the University of Wisconsin-Madison.

**Rick Yorke, Assistant Finance Manager – Financial Operations & Analysis**

Rick is an Assistant Finance Manager in the Financial Operations & Analysis group for the Heitman Value Series. In this role, Rick's responsibilities include quarterly valuations and audit requests; reviewing distributions, income/capital estimates, returns, and NAVs; reviewing compliance agreements; and analyzing property and Fund budgets. Prior to joining Heitman, Rick worked for Retail Properties of America, Inc. (RPAI) as a Senior Portfolio Analyst on the Asset Management and Portfolio Analytics teams. Rick received a BBA in Finance from the University of Iowa's Tippie College of Business.

**Larson Robinson, Senior Associate – Financial Operations & Analysis**

Larson is a Senior Associate in Heitman's Financial Operations & Analysis group, focusing on the Heitman Value Series. His responsibilities include financial analysis and reporting for investments in the Heitman Value Series, preparing internal valuations, reviewing external valuations, preparing reports used to support the Client Service & Marketing group, GIPS compliance, and assisting with the annual budget process. Larson also assists with audit requests; reviewing distributions, income/capital estimates, returns, and NAVs; reviewing compliance agreements; and analyzing property and Fund budgets. Prior to joining Heitman, Larson has held numerous jobs in the real estate industry ranging from residential, commercial and development roles.

Larson received a Bachelor of Science in Business, Real Estate from DePaul University.

**Griffon Gibbons,  
Senior Associate -  
Financial  
Operations &  
Analysis**

Griffin is a Senior Associate in the Financial Operations & Analysis group for Heitman America Real Estate Trust ("HART") and the Heitman Value Series. His responsibilities include assisting with the preparation and review of monthly, quarterly, and annual reports for investors, consultants, and other stakeholders, which includes financial information, performance returns, property conditions, and variance analysis. Prior to joining Heitman, Griffin held an internship at Mesirow Financial.

Griffin received a BS in Real Estate and Finance from the University of Wisconsin-Madison.

**Darsh Tripathi,  
Associate -  
Financial  
Operations &  
Analysis**

Darsh is an Associate in Heitman's Financial Operations & Analysis group. His responsibilities include both quarterly and annual financial reporting, annual audits, and quarterly property valuations for various separate accounts and the Heitman Value Series. Prior to joining Heitman, Darsh was an Assistant Underwriter at Burns & Wilcox.

Darsh received a BS in Finance and Financial Management Services from Michigan State University's Eli Broad College of Business.

## Heitman Ownership

Name	Title/Responsibilities	Years with firm	Years in Industry
Maiko Emi Adachi	Managing Director, Co-Head of Global Investment Research	17	17
Jeff Bingham	Managing Director, Co-Head of Global Investment Research	5	16
Darrah Bixler	Chief People Officer	10	29
Gordon Black	Senior Managing Director, Portfolio Management	35	35
Jennifer Boss	Executive Vice President, Portfolio & Asset Management – North America	29	29
David Busko	Executive Vice President, Director, Acquisitions - North America	7	16
Sébastien Cavé	Managing Director, Private Real Estate Equity – Europe	11	22
Yun Choi	Managing Director and Co-Head of Asia-Pacific Private Real Estate Equity	10	23
Larry Christensen	Chief Financial Officer	34	34
Matthew Claeys	Executive Vice President, Client Service & Marketing – North America	10	22
John Clement	Executive Vice President, Acquisitions – North America	39	39
Laura Craft	Global Head of Portfolio Sustainability Strategies	8	19
Aki Dellaportas	Senior Vice President, Director, Financial Operations & Analysis – North America	5	20
Alan Dooley	Senior Vice President, Portfolio & Asset Management – North America	27	37
Pete Fawcett	Managing Director, Portfolio & Asset Management – North America	37	42
Anthony Ferrante	Executive Vice President, Private Real Estate Equity – North America	34	37
Christina Polito Fylling	Executive Vice President, Client Service & Marketing – North America	17	28
Chris Fruy	Senior Vice President, Portfolio & Asset Management – North America	11	22
Brad Fu	Managing Director and Co-Head of Asia-Pacific Private Real Estate Equity	6	17
Charles Harbin	Managing Director, Co-Head & Portfolio Manager, Public Real Estate Securities	14	22
Mark Hudgins	Senior Vice President, Portfolio & Asset Management – North America	38	42
Lewis Ingall	Senior Managing Director, Client Service & Marketing	36	39
Ashish Karamchandani	Executive Vice President, Director, Acquisitions – North America	6	18
Blaise Keane	Executive Vice President, Portfolio & Asset Management – North America	36	39
Tom Kelly	Executive Vice President, Closing & Due Diligence – North America	38	38
Takayuki Kiura	Senior Advisor (former Managing Director, Client Service & Marketing – Asia-Pacific)	19	36
Amy Krass	Senior Vice President, Portfolio & Asset Management - North America	19	19
Greg Leadholm	Senior Managing Director, Co-Head, Real Estate Debt	17	39
Jon Lindell	Executive Vice President, Real Estate Debt	19	19
Mary Ludgin	Senior Advisor (Investment Research) and Global Investment Committee Member	34	39
David Maki	Senior Managing Director, Co-Head, Real Estate Debt	12	37
John Mancuso	Interim Managing Director, Head of Global Sales, Client Service & Marketing	9	21
Tom McCarthy	Senior Managing Director, Private Real Estate Equity – North America	40	41
Caleb Mercer	Managing Director, Head of European Investment	8 <sup>3</sup>	22
Olin Needle	Executive Vice President, Director of North American Investment Research	27	36
Brian Pieracci	Managing Director, Head of North America Private Equity	25	25
Tim Podboy	Managing Director, Real Estate Debt	13	24
Colleen Ryan	Senior Vice President, Portfolio & Asset Management - North America	28	28
Skip Schwartz	Managing Director, Private Real Estate Equity – Asia-Pacific	27	27

<sup>3</sup> Caleb Mercer was with Heitman's European Acquisitions group from 2012 to 2015; he rejoined in 2019.

<b>Name</b>	<b>Title/Responsibilities</b>	<b>Years with firm</b>	<b>Years in Industry</b>
Tony Smedley	Managing Director, Head of European Private Equity	6	32
Anthony Stamato	Chief Legal Officer	10	32
Beau Titchkosky	Managing Director, Client Service & Marketing - Pacific	7	27
Maury Tognarelli	Chief Executive Officer	40	40
Mike Trench	Executive Vice President, Portfolio & Asset Management – North America	19	19
Rachna Velamati	Chief Diversity Officer	8	17
Irene Yartey-Onyango	Executive Vice President, Head of Product Strategy & Design, Client Service & Marketing	5	17
Jeffrey Yurk	Managing Director, Co-Head & Portfolio Manager, Public Real Estate Securities	20	22

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## Important Disclosures

The investment evaluation of the candidate sponsor and the candidate investment vehicle(s) are compiled by Callan at the request of Mississippi Public Employees' Retirement System, exclusively for use by Mississippi Public Employees' Retirement System.

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The content of this document is particular to the client and should not be relied upon by any other individual or entity. There can be no assurance that the performance of any account or investment will be comparable to the performance information presented in this document.

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Callan's performance, market value, and, if applicable, liability calculations are inherently estimates based on data available at the time each calculation is performed and may later be determined to be incorrect or require subsequent material adjustment due to many variables including, but not limited to, reliance on third party data, differences in calculation methodology, presence of illiquid assets, the timing and magnitude of unrecognized cash flows, and other data/assumptions needed to prepare such estimated calculations. In no event should the performance measurement and reporting services provided by Callan be used in the calculation, deliberation, policy determination, or any other action of the client as it pertains to determining amounts, timing or activity of contribution levels or funding amounts, rebalancing activity, benefit payments, distribution amounts, and/or performance-based fee amounts, unless the client understands and accepts the inherent limitations of Callan's estimated performance, market value, and liability calculations.

Callan's performance measurement service reports estimated returns for a portfolio and compares them against relevant benchmarks and peer groups, as appropriate; such service may also report on historical portfolio holdings, comparing them to holdings of relevant benchmarks and peer groups, as appropriate ("portfolio holdings analysis"). To the extent that Callan's reports include a portfolio holdings analysis, Callan relies entirely on holdings, pricing, characteristics, and risk data provided by third parties including custodian banks, record keepers, pricing services, index providers, and investment managers. Callan reports the performance and holdings data as received and does not attempt to audit or verify the holdings data. Callan is not responsible for the accuracy or completeness of the performance or holdings data received from third parties and such data may not have been verified for accuracy or completeness.

Callan's performance measurement service may report on illiquid asset classes, including, but not limited to, private real estate, private equity, private credit, hedge funds and infrastructure. The final valuation reports, which Callan receives from third parties, for of these types of asset classes may not be available at the time a Callan performance report is issued. As a result, the estimated returns and market values reported for these illiquid asset classes, as well as for any composites including these illiquid asset classes, including any total fund composite prepared, may not reflect final data, and therefore may be subject to revision in future quarters.

The content of this document may consist of statements of opinion, which are made as of the date they are expressed and are not statements of fact. The opinions expressed herein may change based upon changes in economic, market, financial and political conditions and other factors. Callan has no obligation to bring current the opinions expressed herein.

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The issues considered and risks highlighted herein are not comprehensive and other risks may exist that the user of this document may deem material regarding the enclosed information. Please see any applicable full performance report or annual communication for other important disclosures.

Unless Callan has been specifically engaged to do so, Callan does not conduct background checks or in-depth due diligence of the operations of any investment manager search candidate or investment vehicle, as may be typically performed in an operational due diligence evaluation assignment and in no event does Callan conduct due diligence beyond what is described in its report to the client.

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Callan undertakes no obligation to update the information contained herein except as specifically requested by the client.

Past performance is no guarantee of future results.

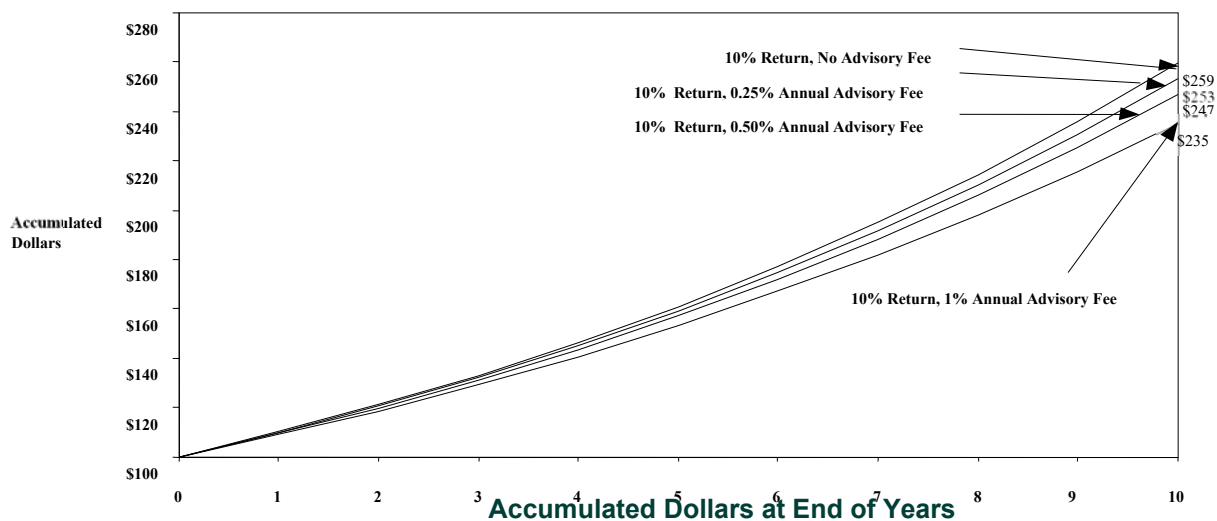
## Disclosure

The preceding report has been prepared for the exclusive use of Mississippi Public Employees' Retirement System. Unless otherwise noted, performance returns contained in this report do not reflect the deduction of investment advisory fees. The returns in this report will be reduced by the advisory fees and any other expenses incurred in the management of an investment account. The investment advisory fees applicable to the advisors listed in this report are described in Part II of each advisor's form ADV.

The following graphical and tabular example illustrates the cumulative effect of investment advisory fees on a \$100 investment growing at 10% over ten years. Fees are assumed to be paid monthly.

In addition to asset-based investment advisory fees, some strategies may include performance-based fees ("carry") that may further lower the returns realized by investors. These performance-based fees can be substantial, are most prevalent in "Alternative" strategies like hedge funds and many types of private markets but can occur elsewhere. The effects of performance-based fees are dependent on investment outcomes and are not included in the example below

### The Cumulative Effect of Advisory Fees



	1	2	3	4	5	6	7	8	9	10
No Fee	110.0	121.0	133.1	146.4	161.1	177.2	194.9	214.4	235.8	259.4
25 Basis Points	109.7	120.4	132.1	145.0	159.1	174.5	191.5	210.1	230.6	253.0
50 Basis Points	109.5	119.8	131.1	143.5	157.1	172.0	188.2	206.0	225.5	246.8
100 Basis Points	108.9	118.6	129.2	140.7	153.3	166.9	181.8	198.0	215.6	234.9

10% Annual Return Compounded Monthly, Annual Fees Paid Monthly.

Disclosure

As indicated below, one or more of the candidates listed in this report may, itself, be a client of Callan as of the date of the most recent quarter end. These clients pay Callan for educational, software, database and/or reporting products and services. Given the complex corporate and organizational ownership structures of investment management firms and/or trust/custody or securities lending firms, the parent and affiliate firm relationships are not listed here.

The client list below may include names of parent companies who allow their affiliates to use some of the services included in their client contract (e.g., educational services including published research and attendance at conferences and workshops). Affiliates will not be listed if they don't separately contract with Callan. Parent company ownership of the firms included in this report and any relationship with Callan can be provided at your request. Because Callan's clients list of investment managers changes periodically, the above information may not reflect recent changes. Clients are welcome to request a complete list of Callan's investment manager clients at any time.

As a matter of policy, Callan follows strict procedures so that investment manager client relationships do not affect the outcome or process by which Callan's searches or evaluations are conducted.

Firm	Is an Investment Manager Client of Callan*	Is Not an Investment Manager Client of Callan*
Heitman	X	

\*Based upon Callan manager clients as of the most recent quarter end.



**Prepared and presented by: Terri Bennett**

**April 24, 2024**

Six cases were considered by the Disability Appeals Committee. As the report reflects, we are recommending one case for approval of non-duty related disability, one case for approval of duty related disability benefits, two cases for denial of duty related disability and two cases for denial of non-duty related disability.

<b>PERS Case Number</b>	<b>Applied for</b>	<b>If Duty-Related, eligible to apply for Non-Duty Related?</b>	<b>Medical Board Decision</b>	<b>Disability Appeals Committee Recommendation</b>	<b>Eligible for Service Retirement?</b>	<b>Disability Appeals Committee Members</b>
23-05	Duty Related	No	Denied Duty Related	Denied Duty Related	No	Hebert, Sweet, and Rubisoff
23-10	Non-Duty Related	N/A	Denied Non-Duty Related	Denied Non-Duty Related	No	Sweet, Wyatt and Rubisoff
23-11	Non-Duty Related	N/A	Denied Non-Duty Related	Approved Non- Duty Related	No	Hebert, Sweet and Rubisoff
23-12	Non-Duty Related	N/A	Denied Non-Duty Related	Denied Non- Duty Related	No	Hebert, Sweet and Rubisoff
24-02	Duty Related	Yes	Denied Duty and Non-Duty Related	Denied Duty Related	No	Hebert, Sweet and Rubisoff
24-03	Duty Related	Yes	Denied Duty and Approved Non-Duty Related	Approved Duty Related	No	Hebert, Sweet and Rubisoff

DAC: Dr. Michael Hebert', Dr. Selika Sweet, Dr. Vince Herrin, Dr. Felice Wyatt and Honorable Chuck Rubisoff

Report to the Board of Trustees  
PERS of Mississippi

MONTHLY TOTALS BY RETIREMENT TYPE AND BENEFIT AMOUNT									
ALL SYSTEMS		SERVICE		DISABILITY		SURVIVOR		SUMMARY TOTAL	
MONTH	YEAR	#	\$	#	\$	#	\$	#	\$
JULY	2023	108,040	\$191,382,719.70	7,220	\$9,444,904.47	3,745	\$3,446,941.72	119,005	\$204,274,565.89
AUGUST	2023	108,383	\$192,297,448.47	7,222	\$9,449,669.05	3,744	\$3,450,700.80	119,349	\$205,197,818.32
SEPTEMBER	2023	108,710	\$193,047,717.32	7,231	\$9,462,926.05	3,738	\$3,439,874.81	119,679	\$205,950,518.18
OCTOBER	2023	108,877	\$193,379,458.05	7,223	\$9,458,830.68	3,753	\$3,456,743.89	119,853	\$206,295,032.62
NOVEMBER	2023	108,925	\$193,508,015.19	7,215	\$9,449,311.33	3,712	\$3,442,460.23	119,852	\$206,399,786.75
DECEMBER	2023	108,914	\$193,458,257.82	7,207	\$9,444,841.07	3,725	\$3,449,397.41	119,846	\$206,352,496.30
DECEMBER 15	2023								\$836,186,926.64
JANUARY	2024	109,164	\$194,220,984.44	7,195	\$9,447,011.30	3,737	\$3,450,871.05	120,096	\$207,118,866.79
FEBRUARY	2024	109,183	\$194,446,870.04	7,193	\$9,465,843.06	3,740	\$3,459,049.28	120,116	\$207,371,762.38
MARCH	2024	109,173	\$194,563,006.43	7,186	\$9,448,867.81	3,745	\$3,469,112.74	120,104	\$207,480,986.98
APRIL	2024	109,191	\$194,737,248.31	7,179	\$9,426,942.80	3,719	\$3,468,016.26	120,089	\$207,632,207.37
MAY	2024								
JUNE	2024								
YEAR-TO-DATE			\$1,935,041,725.77		\$ 94,499,147.62		\$ 34,533,168.19		\$2,900,260,968.22

Report to the Board of Trustees  
PERS of Mississippi

MONTHLY TOTALS BY RETIREMENT PLAN AND BENEFIT AMOUNT											
ALL SYSTEMS		PERS		SLRP		MHSP		MRS		SUMMARY TOTAL	
MONTH	YEAR	#	\$	#	\$	#	\$	#	\$	#	\$
JULY	2023	116,596	\$199,577,193.54	226	\$104,420.94	793	\$2,430,467.09	1,390	\$2,162,484.32	119,005	\$204,274,565.89
AUGUST	2023	116,944	\$200,500,518.34	225	\$104,149.16	796	\$2,441,209.53	1,384	\$2,151,941.29	119,349	\$205,197,818.32
SEPTEMBER	2023	117,268	\$201,222,148.86	227	\$105,636.91	798	\$2,468,418.77	1,386	\$2,154,313.64	119,679	\$205,950,518.18
OCTOBER	2023	117,445	\$201,570,691.25	228	\$105,971.24	803	\$2,475,320.63	1,377	\$2,143,049.50	119,853	\$206,295,032.62
NOVEMBER	2023	117,450	\$201,685,772.31	227	\$105,660.01	803	\$2,472,831.67	1,372	\$2,135,522.76	119,852	\$206,399,786.75
DECEMBER	2023	117,454	\$201,646,242.87	228	\$107,463.81	799	\$2,466,388.45	1,365	\$2,132,401.17	119,846	\$206,352,496.30
DECEMBER 15	2023		\$822,083,435.01		\$407,581.71		\$10,371,707.29		\$3,324,202.63		\$836,186,926.64
JANUARY	2024	117,700	\$202,384,578.58	232	\$108,658.63	801	\$2,476,213.86	1,363	\$2,149,415.72	120,096	\$207,118,866.79
FEBRUARY	2024	117,716	\$202,621,254.36	240	\$112,643.07	804	\$2,494,180.22	1,356	\$2,143,684.73	120,116	\$207,371,762.38
MARCH	2024	117,704	\$202,734,782.08	242	\$114,044.51	806	\$2,507,812.59	1,352	\$2,124,347.80	120,104	\$207,480,986.98
APRIL	2024	117,693	\$202,886,265.37	242	\$114,075.30	805	\$2,510,786.14	1,349	\$2,121,080.56	120,089	\$207,632,207.37
MAY	2024										
JUNE	2024										
YEAR-TO-DATE			\$2,838,912,882.57		\$1,490,305.29		\$35,115,336.24		\$ 24,742,444.12		\$2,900,260,968.22

**RECIPIENTS ADDED TO AND REMOVED FROM PAYROLL BY PLAN**

ALL SYSTEMS		PERS				MHSP				SLRP				MRS				SUMMARY TOTALS			
MONTH	YEAR	YTD	Added	Removed	Total	YTD	Added	Removed	Total	YTD	Added	Removed	Total	YTD	Added	Removed	Total	YTD	Added	Removed	Total
JULY	2023	115,993	1,024	421	<b>116,596</b>	789	7	3	<b>793</b>	228	3	5	<b>226</b>	1,393	3	6	<b>1,390</b>	118,403	1,037	435	<b>119,005</b>
AUGUST	2023	116,596	632	284	<b>116,944</b>	793	4	1	<b>796</b>	226	-	1	<b>225</b>	1,390	1	7	<b>1,384</b>	119,005	637	293	<b>119,349</b>
SEPTEMBER	2023	116,944	640	316	<b>117,268</b>	796	7	5	<b>798</b>	225	2	-	<b>227</b>	1,384	5	3	<b>1,386</b>	119,349	654	324	<b>119,679</b>
OCTOBER	2023	117,268	576	399	<b>117,445</b>	798	10	5	<b>803</b>	227	1	-	<b>228</b>	1,386	3	12	<b>1,377</b>	119,679	590	416	<b>119,853</b>
NOVEMBER	2023	117,445	360	355	<b>117,450</b>	803	2	2	<b>803</b>	228	-	1	<b>227</b>	1,377	2	7	<b>1,372</b>	119,853	364	365	<b>119,852</b>
DECEMBER	2023	117,450	315	311	<b>117,454</b>	803	-	4	<b>799</b>	227	1	-	<b>228</b>	1,372	4	11	<b>1,365</b>	119,852	320	326	<b>119,846</b>
JANUARY	2024	117,454	584	338	<b>117,700</b>	799	3	1	<b>801</b>	228	5	1	<b>232</b>	1,365	3	5	<b>1,363</b>	119,846	595	345	<b>120,096</b>
FEBRUARY	2024	117,700	457	441	<b>117,716</b>	801	5	2	<b>804</b>	232	12	4	<b>240</b>	1,363	4	11	<b>1,356</b>	120,096	478	458	<b>120,116</b>
MARCH	2024	117,716	376	388	<b>117,704</b>	804	4	2	<b>806</b>	240	2	-	<b>242</b>	1,356	4	8	<b>1,352</b>	120,116	386	398	<b>120,104</b>
APRIL	2024	117,704	419	430	<b>117,693</b>	806	4	5	<b>805</b>	242	1	1	<b>242</b>	1,352	2	5	<b>1,349</b>	120,104	426	441	<b>120,089</b>
MAY	2024																				
JUNE	2024																				

Report to the Board of Trustees  
PERS of Mississippi

DAILY PAYROLL TOTALS BY PAYMENT TYPE					
ALL SYSTEMS		PARTIAL LUMP SUMS	BENEFITS	REFUNDS	TOTAL
MONTH	YEAR	\$	\$	\$	\$
JULY	2023	\$39,109,344.48	\$2,709,549.46	\$9,151,068.99	\$50,969,962.93
AUGUST	2023	\$12,453,750.34	\$3,151,255.29	\$12,723,365.88	\$28,328,371.51
SEPTEMBER	2023	\$5,668,179.00	\$1,785,349.63	\$10,628,672.60	\$18,082,201.23
OCTOBER	2023	\$3,692,738.24	\$931,869.62	\$10,490,210.98	\$15,114,818.84
NOVEMBER	2023	\$2,574,604.68	\$776,568.38	\$11,964,600.43	\$15,315,773.49
DECEMBER	2023	\$2,987,359.56	\$535,669.29	\$7,955,675.70	\$11,478,704.55
JANUARY	2024	\$20,164,373.52	\$1,662,127.46	\$9,272,450.98	\$31,098,951.96
FEBRUARY	2024	\$6,103,180.32	\$861,271.35	\$9,684,936.74	\$16,649,388.41
MARCH	2024	\$3,938,795.63	\$1,045,874.45	\$9,118,168.05	\$14,102,838.13
APRIL	2024				
MAY	2024				
JUNE	2024				
YEAR-TO-DATE		\$96,692,325.77	\$13,459,534.93	\$90,989,150.35	\$201,141,011.05

Report to the Board of Trustees  
PERS of Mississippi

COMBINED DAILY AND MONTHLY RETIREE PAYROLL TOTALS				
ALL SYSTEMS		DAILY PAYROLL**	MONTHLY PAYROLL	PAYROLL TOTALS
MONTH	YEAR	\$	\$	\$
JULY	2023	\$41,818,893.94	\$204,274,565.89	\$246,093,459.83
AUGUST	2023	\$15,605,005.63	\$205,197,818.32	\$220,802,823.95
SEPTEMBER	2023	\$7,453,528.63	\$205,950,518.18	\$213,404,046.81
OCTOBER	2023	\$4,624,607.86	\$206,295,032.62	\$210,919,640.48
NOVEMBER	2023	\$3,351,173.06	\$206,399,786.75	\$209,750,959.81
DECEMBER	2023	\$3,523,028.85	\$206,352,496.30	\$209,875,525.15
DECEMBER 15	2023		\$836,186,926.64	\$836,186,926.64
JANUARY	2024	\$21,826,500.98	\$ 207,118,866.79	\$228,945,367.77
FEBRUARY	2024	\$6,964,451.67	\$ 207,371,762.38	\$214,336,214.05
MARCH	2024	\$4,984,670.08	\$ 207,480,986.98	\$212,465,657.06
APRIL	2024			
MAY	2024			
JUNE	2024			
YEAR-TO-DATE		\$110,151,860.70	\$ 2,692,628,760.85	\$2,802,780,621.55

\*\*These amounts do not include refunds; they represent retiree payroll (partial lump sums and benefits) only.

# **Public Employees' Retirement System of Mississippi**

## **Report of Investments**

**March 31, 2024**

(Unaudited)

## Consolidated Portfolio Summary

3/31/2024

<b>Asset Class</b>	<b>Book Value</b>	<b>% of Total Book Value</b>	<b>Market Value</b>	<b>% of Total Market Value</b>
Domestic Equity	4,223,061,685.66	16.90%	8,572,348,544.54	25.51%
Fixed Income	6,715,409,027.16	26.87%	6,482,543,957.35	19.29%
International Equity	8,784,407,068.06	35.15%	10,843,288,214.76	32.26%
Real Estate	1,842,644,005.94	7.37%	2,878,116,770.54	8.56%
Private Equity	2,287,114,984.69	9.15%	3,752,295,943.73	11.16%
Private Credit	32,715,615.00	0.13%	32,715,615.00	0.10%
Cash & Cash Equivalent In-House	383,879,893.40	1.54%	383,879,893.40	1.14%
Cash & Cash Equivalent Manager	719,583,623.53	2.88%	665,062,677.88	1.98%
<b>Total</b>	<b>24,988,815,903.44</b>	<b>100.00%</b>	<b>33,610,251,617.20</b>	<b>100.00%</b>



# Manager Portfolio Summary

3/31/2024

Manager	Account #	Book Value	% of Asset Class (BV)	% of Portfolio (BV)	Market Value	% of Asset Class (MV)	% of Portfolio (MV)
<b>Domestic Equity</b>							
<i>Active</i>							
DIMENSIONAL FUND ADVISORS	MS6F10014002	275,476,231.36	2.07%	1.10%	345,033,584.66	1.75%	1.03%
WELLINGTON SMALL CAP	MS6F10013102	287,207,778.21	2.16%	1.15%	347,585,240.21	1.76%	1.03%
ARTISAN PARTNERS	MS6F10015002	364,864,386.01	2.74%	1.46%	532,998,587.57	2.70%	1.59%
EAGLE CAPITAL	MS6F10017002	543,792,070.71	4.08%	2.18%	918,830,030.86	4.66%	2.73%
RIVERBRIDGE PARTNERS	MS6F10019002	241,295,162.97	1.81%	0.97%	346,974,611.16	1.76%	1.03%
VICTORY MID CAP VALUE	MS6F10021002	<u>500,467,591.33</u>	<u>3.76%</u>	<u>2.00%</u>	<u>577,532,877.80</u>	<u>2.93%</u>	<u>1.72%</u>
<b>Total Active</b>		<b>2,213,103,220.59</b>	<b>16.62%</b>	<b>8.86%</b>	<b>3,068,954,932.26</b>	<b>15.56%</b>	<b>9.13%</b>
<i>Passive</i>							
NORTHERN TRUST	MS6F10010002	2,102,292,815.06	15.79%	8.41%	5,595,727,962.27	28.37%	16.65%
NOR TR RSSLL MID CAP	MS6F10010102	4,473,197.14	0.03%	0.02%	4,473,197.14	0.02%	0.01%
NOR TR RSSLL 10000 V	MS6F10016102	<u>31,480.50</u>	<u>0.00%</u>	<u>0.00%</u>	<u>31,480.50</u>	<u>0.00%</u>	<u>0.00%</u>
<b>Total Passive</b>		<b>2,106,797,492.70</b>	<b>15.82%</b>	<b>8.43%</b>	<b>5,600,232,639.91</b>	<b>28.39%</b>	<b>16.66%</b>
<b>Total Domestic Equity</b>		<b>4,319,900,713.29</b>	<b>32.44%</b>	<b>17.29%</b>	<b>8,669,187,572.17</b>	<b>43.95%</b>	<b>25.79%</b>
<b>Global Equity</b>							
ACADIAN ASSET	MS6F30010002	809,503,368.29	6.08%	3.24%	1,075,481,681.65	5.45%	3.20%
EPOCH GLOBAL	MS6F30020002	862,387,495.30	6.48%	3.45%	1,041,417,077.50	5.28%	3.10%
HARDING LOEVNER	MS6F30030002	783,723,828.36	5.89%	3.14%	1,044,631,149.14	5.30%	3.11%
LSV GLOBAL VALUE	MS6F30080002	858,785,110.50	6.45%	3.44%	1,042,600,118.37	5.29%	3.10%
<b>Total Global Equity Managers</b>		<b><u>3,314,399,802.45</u></b>	<b><u>24.89%</u></b>	<b><u>13.26%</u></b>	<b><u>4,204,130,026.66</u></b>	<b><u>21.31%</u></b>	<b><u>12.51%</u></b>
<b>Total Global Equity Managers</b>		<b>3,314,399,802.45</b>	<b>24.89%</b>	<b>13.26%</b>	<b>4,204,130,026.66</b>	<b>21.31%</b>	<b>12.51%</b>
<b>International Equity</b>							
<i>Active</i>							
PRINCIPAL SC INTL	MS6F20019102	303,303,869.73	2.28%	1.21%	354,869,300.35	1.80%	1.06%
MONDRIAN SMALL CAP	MS6F20018002	362,670,844.98	2.72%	1.45%	322,791,133.77	1.64%	0.96%
ARROWSTREET CAPITAL	MS6F20020002	725,766,394.00	5.45%	2.90%	840,361,117.94	4.26%	2.50%
BAILLIE GIFFORD	MS6F20021002	569,939,608.39	4.28%	2.28%	745,391,555.33	3.78%	2.22%
MARATHON ASSET MGMT	MS6F20023002	<u>727,695,040.91</u>	<u>5.46%</u>	<u>2.91%</u>	<u>856,889,537.18</u>	<u>4.34%</u>	<u>2.55%</u>
<b>Total Active</b>		<b>2,689,375,758.01</b>	<b>20.20%</b>	<b>10.76%</b>	<b>3,120,302,644.57</b>	<b>15.82%</b>	<b>9.28%</b>
<i>Passive</i>							
NORTHERN TRUST EAFE	MS6F20013102	12,396,169.47	0.09%	0.05%	12,180,765.19	0.06%	0.04%
NT MSCI WORLD EX US INDEX	MS6F20024002	<u>1,734,464,341.45</u>	<u>13.03%</u>	<u>6.94%</u>	<u>2,341,895,551.62</u>	<u>11.87%</u>	<u>6.97%</u>
<b>Total Passive</b>		<b>1,746,860,510.92</b>	<b>13.12%</b>	<b>6.99%</b>	<b>2,354,076,316.81</b>	<b>11.93%</b>	<b>7.00%</b>
<i>Regional/Emerging</i>							
LAZARD FRERES ASSET EM	MS6F20011002	689,406,536.96	5.18%	2.76%	698,602,637.23	3.54%	2.08%
FISHER INVESTMENTS	MS6F20022002	<u>556,455,884.28</u>	<u>4.18%</u>	<u>2.23%</u>	<u>679,165,827.16</u>	<u>3.44%</u>	<u>2.02%</u>
<b>Total Regional/Emerging</b>		<b>1,245,862,421.24</b>	<b>9.36%</b>	<b>4.99%</b>	<b>1,377,768,464.39</b>	<b>6.98%</b>	<b>4.10%</b>
<b>Total International Equity</b>		<b>5,682,098,690.17</b>	<b>42.67%</b>	<b>22.74%</b>	<b>6,852,147,425.77</b>	<b>34.74%</b>	<b>20.39%</b>
<b>Total Equity</b>		<b>13,316,399,205.91</b>	<b>100.00%</b>	<b>53.29%</b>	<b>19,725,465,024.60</b>	<b>100.00%</b>	<b>58.69%</b>
<b>Fixed Income</b>							
<i>Domestic Active</i>							
PACIFIC INVESTMENTS MGT	MS6F40013002	706,992,416.17	10.26%	2.83%	663,479,876.43	10.04%	1.97%
LOOMIS SAYLES	MS6F40016002	1,203,642,966.03	17.46%	4.82%	1,131,065,571.00	17.12%	3.37%
PRUDENTIAL	MS6F40017002	1,246,012,750.88	18.08%	4.99%	1,154,341,829.76	17.47%	3.43%
MANULIFE ASSET MGMT	MS6F40018002	703,517,260.57	10.21%	2.82%	659,692,109.74	9.98%	1.96%
SIT SHORT DURATION FIXED	MS6F40019002	<u>762,244,395.99</u>	<u>11.06%</u>	<u>3.05%</u>	<u>762,887,941.22</u>	<u>11.55%</u>	<u>2.27%</u>
<b>Total Domestic Active</b>		<b>4,622,409,789.64</b>	<b>67.07%</b>	<b>18.50%</b>	<b>4,371,467,328.15</b>	<b>66.16%</b>	<b>13.01%</b>
<i>Global Active</i>							
ALLIANCE BERNSTEIN GLOBAL	MS6F45010002	775,249,832.85	11.25%	3.10%	767,024,576.54	11.61%	2.28%
PIMCO GLOBAL	MS6F45011002	<u>774,012,457.62</u>	<u>11.23%</u>	<u>3.10%</u>	<u>760,445,422.91</u>	<u>11.51%</u>	<u>2.26%</u>
<b>Total Global Active</b>		<b>1,549,262,290.47</b>	<b>22.48%</b>	<b>6.20%</b>	<b>1,527,469,999.45</b>	<b>23.12%</b>	<b>4.54%</b>
<i>International Active</i>							
WELLINGTON EM DEBT	MS6F50010002	720,186,309.25	10.45%	2.88%	708,134,326.97	10.72%	2.11%
<b>Total International Active</b>		<b><u>720,186,309.25</u></b>	<b><u>10.45%</u></b>	<b><u>2.88%</u></b>	<b><u>708,134,326.97</u></b>	<b><u>10.72%</u></b>	<b><u>2.11%</u></b>
<b>Total Active</b>		<b>6,891,858,389.36</b>	<b>100.00%</b>	<b>27.58%</b>	<b>6,607,071,654.57</b>	<b>100.00%</b>	<b>19.66%</b>
<i>Domestic Passive</i>							
NORTHERN TRUST BB AGGREGATE	MS6F40014102	<u>-5,997.49</u>	<u>0.00%</u>	<u>0.00%</u>	<u>-5,997.49</u>	<u>0.00%</u>	<u>0.00%</u>
<b>Total Domestic Passive</b>		<b>-5,997.49</b>	<b>0.00%</b>	<b>0.00%</b>	<b>-5,997.49</b>	<b>0.00%</b>	<b>0.00%</b>
<b>Total Fixed Income</b>		<b>6,891,852,391.87</b>	<b>100.00%</b>	<b>27.58%</b>	<b>6,607,065,657.08</b>	<b>100.00%</b>	<b>19.66%</b>

# Manager Portfolio Summary

3/31/2024

Manager	Account #	Book Value	% of Asset Class (BV)	% of Portfolio (BV)	Market Value	% of Asset Class (MV)	% of Portfolio (MV)
<b>Real Estate Managers</b>							
<i>Core Commingled</i>							
PRINCIPAL COMMINGLED FUND	MS6F60010002	364,137,402.76	19.30%	1.46%	862,998,075.94	29.53%	2.57%
UBS TRUMBULL PROP FUND	MS6F60011002	171,185,271.41	9.07%	0.69%	372,679,229.16	12.75%	1.11%
UBS TRUMBULL PROP G&I FUND	MS6F60020002	99,985,586.45	5.30%	0.40%	227,615,476.88	7.79%	0.68%
JPM STRAT PROP FD	MS6F60021002	220,685,229.21	11.70%	0.88%	396,561,908.80	13.57%	1.18%
INVESCO US INCOME FD	MS6F60030002	197,882,463.08	10.49%	0.79%	165,953,238.09	5.68%	0.49%
<b>Total Core Commingled</b>		<b>1,053,875,952.91</b>	<b>55.85%</b>	<b>4.22%</b>	<b>2,025,807,928.87</b>	<b>69.32%</b>	<b>6.03%</b>
<i>Timber</i>							
HANCOCK TIMBER FUND	MS6F60014002	25,792,718.86	1.37%	0.10%	42,360,552.86	1.45%	0.13%
<b>Total Timber</b>		<b>25,792,718.86</b>	<b>1.37%</b>	<b>0.10%</b>	<b>42,360,552.86</b>	<b>1.45%</b>	<b>0.13%</b>
<i>REITS</i>							
COHEN & STEERS GLOBAL REIT	MS6F60018002	96,908,123.52	5.14%	0.39%	105,726,774.18	3.62%	0.31%
CENTERSQUARE INV	MS6F60027002	198,986,971.47	10.55%	0.80%	208,062,914.41	7.12%	0.62%
<b>Total REITS</b>		<b>295,895,094.99</b>	<b>15.68%</b>	<b>1.18%</b>	<b>313,789,688.59</b>	<b>10.74%</b>	<b>0.93%</b>
<i>AE</i>							
AG CORE PLUS FD II	MS6F60015002	813.31	0.00%	0.00%	813.31	0.00%	0.00%
AG CORE PLUS FD III	MS6F60022002	2,197,573.05	0.12%	0.01%	1,141,756.28	0.04%	0.00%
AG CORE PLUS FD IV	MS6F60025002	25,845,354.20	1.37%	0.10%	18,352,910.74	0.63%	0.05%
AG REALTY VALUE FUND X	MS6F60025102	44,400,750.91	2.35%	0.18%	51,512,414.14	1.76%	0.15%
AG REALTY VALUE FUND XI	MS6F60031002	12,104,704.00	0.64%	0.05%	15,719,925.00	0.54%	0.05%
AEW PARTNERS VI LP	MS6F60017102	291,935.64	0.02%	0.00%	752,321.64	0.03%	0.00%
AEW PARTNERS VII LP	MS6F60017202	7,282,001.63	0.39%	0.03%	3,696,757.87	0.13%	0.01%
TA REALTY X	MS6F60023002	786,093.71	0.04%	0.00%	786,093.71	0.03%	0.00%
HEITMAN VALUE PARTNERS III	MS6F60016102	394,389.31	0.02%	0.00%	394,389.31	0.01%	0.00%
INVESCO VA FUND IV	MS6F60024002	2,591,952.05	0.14%	0.01%	1,879,287.01	0.06%	0.01%
INVESCO VA FUND V	MS6F60024102	68,183,026.08	3.61%	0.27%	58,723,347.08	2.01%	0.17%
INVESCO VA FUND VI	MS6F60024202	41,597,323.03	2.20%	0.17%	35,749,126.03	1.22%	0.11%
WESTBROOK REAL ESTATE FUND X	MS6F60026002	20,088,738.69	1.06%	0.08%	15,127,583.80	0.52%	0.05%
WESTBROOK RE FUND XI	MS6F60026102	49,809,767.78	2.64%	0.20%	54,204,215.78	1.85%	0.16%
WESTBROOK RE FUND XII	MS6F60033002	0.00	0.00%	0.00%	0.00	0.00%	0.00%
TA REALTY XI	MS6F60023102	7,741,429.00	0.41%	0.03%	9,142,780.00	0.31%	0.03%
TA REALTY XII	MS6F60023202	72,086,672.75	3.82%	0.29%	94,389,000.75	3.23%	0.28%
TA REALTY XIII	MS6F60023302	16,221,577.00	0.86%	0.06%	14,282,698.00	0.49%	0.04%
AEW PARTNERS VIII LP	MS6F60017302	8,709,703.10	0.46%	0.03%	15,499,295.10	0.53%	0.05%
AEW PARTNERS IX LP	MS6F60028002	54,404,989.54	2.88%	0.22%	63,158,461.54	2.16%	0.19%
AEW PARTNERS X LP	MS6F60032002	0.00	0.00%	0.00%	0.00	0.00%	0.00%
HEITMAN VALUE PARTNERS IV LP	MS6F60016202	25,682,815.43	1.36%	0.10%	34,495,067.59	1.18%	0.10%
HEITMAN V	MS6F60029002	50,949,178.83	2.70%	0.20%	51,429,534.83	1.76%	0.15%
<b>Total Value Added</b>		<b>511,370,789.04</b>	<b>27.10%</b>	<b>2.05%</b>	<b>540,437,779.51</b>	<b>18.49%</b>	<b>1.61%</b>
<b>Total Real Estate Managers</b>		<b>1,886,934,555.80</b>	<b>100.00%</b>	<b>7.55%</b>	<b>2,922,395,949.83</b>	<b>100.00%</b>	<b>8.69%</b>
<b>Private Equity Managers</b>							
PATHWAY- PEF XXIII	MS6F70010002	202,854,619.67	8.23%	0.81%	238,266,665.35	6.06%	0.71%
GCM GROSVENOR 2019 1 SERIES	MS6F70011002	277,717,493.71	11.27%	1.11%	156,020,884.55	3.97%	0.46%
PATHWAY PEF SRS 2012	MS6F70013002	359,978,048.47	14.61%	1.44%	726,999,291.16	18.51%	2.16%
CFIG DIV PRTRN 14-1	MS6F70014002	222,030,075.37	9.01%	0.89%	716,505,825.77	18.24%	2.13%
GCM GROSVENOR 2018 1 SERIES	MS6F70014102	348,220,360.42	14.14%	1.39%	476,432,809.91	12.13%	1.42%
PATHWAY PEF 2016	MS6F70013102	789,208,851.48	32.04%	3.16%	1,316,780,093.42	33.52%	3.92%
PATHWAY PEF SRS 2021	MS6F70013202	263,389,641.23	10.69%	1.05%	297,574,479.23	7.57%	0.89%
<b>Total Private Equity Managers</b>		<b>2,463,399,090.35</b>	<b>100.00%</b>	<b>9.86%</b>	<b>3,928,580,049.39</b>	<b>100.00%</b>	<b>11.69%</b>
<b>Private Credit Managers</b>							
GCM PC SERIES 2023	MS6F75000002	8,864,651.00	27.10%	0.04%	8,864,651.00	27.10%	0.03%
BLUE OWL LENDING 2023	MS6F75000102	23,850,964.00	72.90%	0.10%	23,850,964.00	72.90%	0.07%
<b>Total Private Credit Managers</b>		<b>32,715,615.00</b>	<b>100.00%</b>	<b>0.13%</b>	<b>32,715,615.00</b>	<b>100.00%</b>	<b>0.10%</b>
<b>Terminated Managers</b>							
PYRAMIS SMALL CAP	MS6F20019002	149,572.70	1.70%	0.00%	141,811.98	1.73%	0.00%
RREEF REIT	MS6F60012002	0.00	0.00%	0.00%	0.00	0.00%	0.00%
DIMENSIONAL FUND ADV EAFE	MS6F20010002	211,651.26	2.40%	0.00%	165,152.48	2.01%	0.00%
INTL TRANSITION	MS6F20090002	3,603,048.98	40.94%	0.01%	3,378,481.09	41.18%	0.01%
NEW STAR INSTITUTIONAL	MS6F20014002	130,711.96	1.49%	0.00%	102,546.98	1.25%	0.00%
JARISLOWSKY,FRASER LMT	MS6F20015002	514,468.71	5.85%	0.00%	424,333.21	5.17%	0.00%
BLACKROCK GLOBAL INV	MS6F20013002	1,679,807.45	19.09%	0.01%	1,612,511.94	19.65%	0.00%
WELLINGTON MIDCAP	MS6F10013002	43,722.97	0.00%	0.00%	43,722.97	0.00%	0.00%
LONGVIEW PARTNERS	MS6F30040002	1,037,847.01	0.03%	0.00%	988,439.44	0.02%	0.00%
NORTHERN TRUST GLOBAL EQUITY INDEX	MS6F30060002	1,430,289.46	0.04%	0.01%	1,347,504.02	0.03%	0.00%
<b>Total Terminated Managers</b>		<b>8,801,120.50</b>	<b>71.54%</b>	<b>0.04%</b>	<b>8,204,504.11</b>	<b>71.05%</b>	<b>0.02%</b>
<b>Transition Managers</b>							
MSPRS NORTHERN TRST TRANSITION	MS6F30050002	4,834,030.61	0.15%	0.02%	1,944,923.79	0.05%	0.01%
<b>Total Transition</b>		<b>4,834,030.61</b>	<b>0.15%</b>	<b>0.02%</b>	<b>1,944,923.79</b>	<b>0.05%</b>	<b>0.01%</b>
<b>Short Term In-House</b>							
PERS ADMINISTRATIVE SHORT TERM	MS6F80010002	383,879,893.40	100.00%	1.54%	383,879,893.40	100.00%	1.14%
<b>Total Short Term In-House</b>		<b>383,879,893.40</b>	<b>100.00%</b>	<b>1.54%</b>	<b>383,879,893.40</b>	<b>100.00%</b>	<b>1.14%</b>
<b>Grand Total</b>		<b>24,988,815,903.44</b>		<b>100.00%</b>	<b>33,610,251,617.20</b>		<b>100.00%</b>

68 Portfolios  
37 Managers

## Securities Lending Management Summary

As of March 2024

### 2023/2024 EARNINGS

	Gov.	Equity	Corp.	Int'l Fixed	Int'l Equities	Total
July	\$161,044	\$506,591	\$113,564	\$58,819	\$115,621	\$955,639
Aug	\$178,755	\$477,918	\$110,193	\$52,792	\$115,852	\$935,510
Sept	\$182,891	\$450,174	\$112,656	\$50,652	\$132,954	\$929,327
Oct	\$175,989	\$420,477	\$109,488	\$46,329	\$153,034	\$905,317
Nov	\$150,094	\$547,329	\$123,461	\$40,238	\$72,109	\$933,231
Dec	\$223,216	\$541,993	\$135,449	\$47,294	\$87,152	\$1,035,104
Jan	\$239,112	\$475,010	\$146,594	\$37,351	\$116,558	\$1,014,625
Feb	\$219,043	\$471,179	\$163,035	\$35,465	\$61,169	\$949,891
Mar	\$203,565	\$614,594	\$144,165	\$37,753	\$76,125	\$1,076,202
Apr						\$0
May						\$0
June						\$0
YTD	\$1,733,709	\$4,505,266	\$1,158,605	\$406,693	\$930,574	\$8,734,847

### March 2024

I. Earnings	This Month	Year-to-Date
Governments	\$203,565	\$1,733,709
Equity	\$614,594	\$4,505,266
Corporate/Equities	\$144,165	\$1,158,605
Int'l Fixed	\$37,753	\$406,693
Int'l Equities	\$76,125	\$930,574
Total	\$1,076,202	\$8,734,847

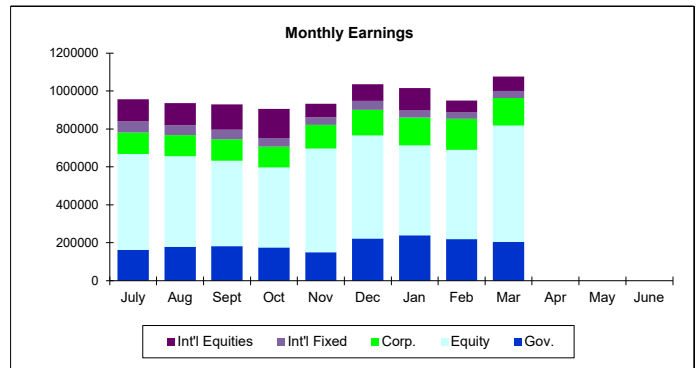
  

II. Monthly Performance Measures	Avg. Loan Volume (000's)	Avg. Wgt. Spread (BP)
Governments	\$492,961	44
Equity	\$1,468,791	56
Corporate/Equities	\$297,758	68
Int'l Fixed	\$179,648	30
Int'l Equities	\$247,294	50
Total	\$2,686,452	52

### Outstandings (000's)

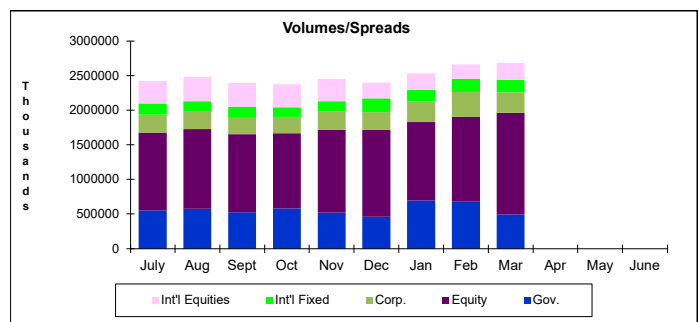
	Gov.	Equity	Corp.	Int'l Fixed	Int'l Equities	Total
July	\$551,372	\$1,125,301	\$257,811	\$164,473	\$321,395	\$2,420,352
Aug	\$575,509	\$1,152,870	\$250,640	\$153,268	\$351,036	\$2,483,323
Sept	\$525,203	\$1,130,424	\$233,314	\$161,556	\$345,002	\$2,395,499
Oct	\$582,518	\$1,086,986	\$231,922	\$138,976	\$333,401	\$2,373,803
Nov	\$519,825	\$1,199,018	\$263,985	\$145,906	\$324,199	\$2,452,933
Dec	\$461,217	\$1,255,530	\$255,847	\$198,344	\$228,820	\$2,399,758
Jan	\$696,409	\$1,133,399	\$296,029	\$170,736	\$235,763	\$2,532,336
Feb	\$679,059	\$1,225,149	\$362,417	\$187,200	\$207,386	\$2,661,211
Mar	\$492,961	\$1,468,791	\$297,758	\$179,648	\$247,294	\$2,686,452
Apr						\$0
May						\$0
June						\$0
AVG	\$564,897	\$1,197,496	\$272,191	\$166,679	\$288,255	\$1,867,139

### III. Trend Analysis



### SPREADS

	Gov.	Equity	Corp	Int'l Fixed	Int'l Equities	Spread
July	38	62	61	49	49	52
Aug	42	56	60	44	45	49
Sept	47	56	68	51	53	54
Oct	40	53	64	46	48	50
Nov	40	52	66	40	48	50
Dec	61	59	72	32	51	58
Jan	44	56	68	30	50	52
Feb	47	56	65	27	42	52
Mar	50	57	66	27	42	53
Apr						
May						
June						
WHT AVG	45	56	66	38	48	52

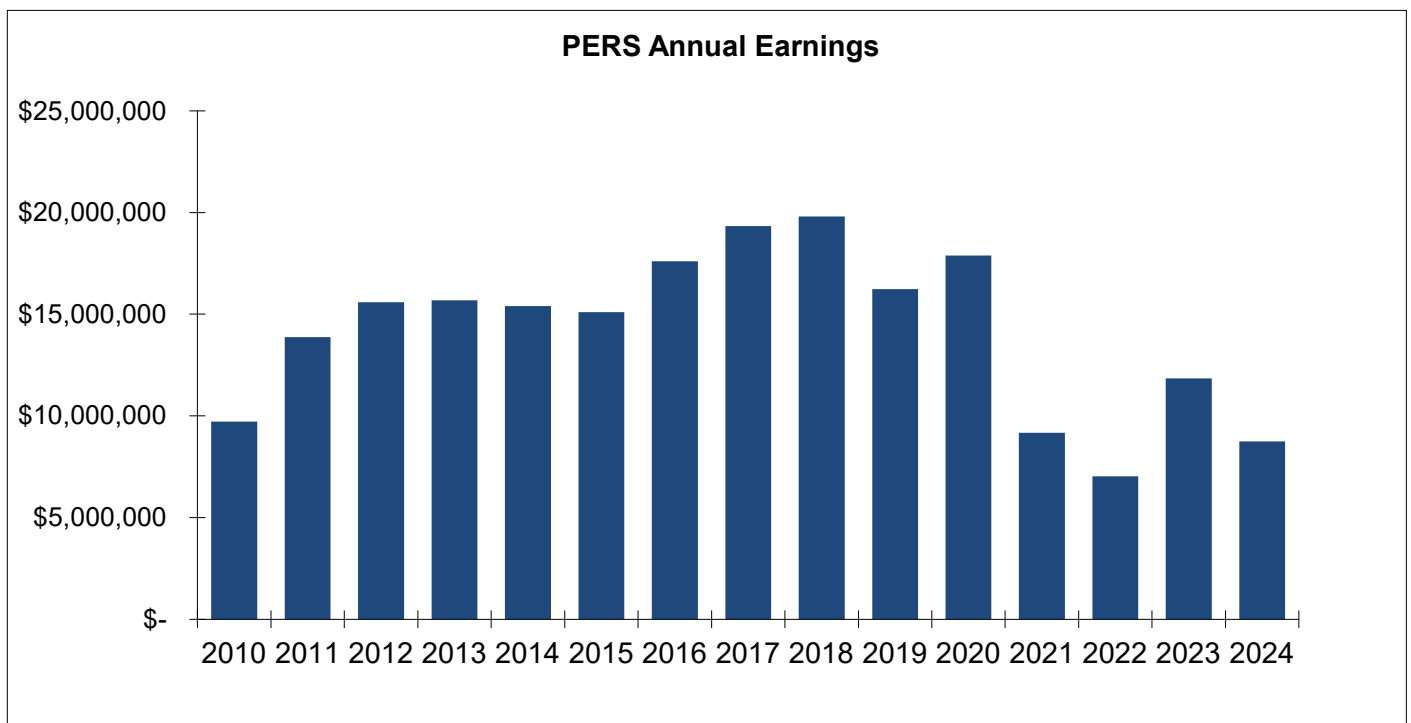


# Securities Lending Management Summary

As of March

Fiscal Year	PERS Earnings	Lending Agent Earnings	Total Program Earnings
2010	\$ 9,722,712	\$ 1,715,773	\$ 11,438,485
2011	\$ 13,878,226	\$ 2,449,099	\$ 16,327,325
2012	\$ 15,596,477	\$ 2,752,319	\$ 18,348,796
2013	\$ 15,682,377	\$ 2,767,478	\$ 18,449,855
2014	\$ 15,401,726	\$ 2,717,952	\$ 18,119,678
2015	\$ 15,094,878	\$ 2,663,802	\$ 17,758,681
2016	\$ 17,605,026	\$ 3,106,769	\$ 20,711,795
2017	\$ 19,329,769	\$ 3,411,136	\$ 22,740,905
2018	\$ 19,813,714	\$ 3,496,538	\$ 23,310,252
2019	\$ 16,240,589	\$ 2,865,986	\$ 19,106,575
2020	\$ 17,887,629	\$ 3,156,640	\$ 21,044,269
2021	\$ 9,167,025	\$ 1,617,710	\$ 10,784,735
2022	\$ 7,017,725	\$ 1,238,422	\$ 8,256,147
2023	\$ 11,837,810	\$ 2,089,025	\$ 13,926,835
2024	* \$ 8,734,847	\$ 1,541,444	\$ 10,276,291

\* As of March



**FY 2024  
FUND TRANSFERS**

<u>DATE</u>	<u>MANAGER</u>	<u>AMOUNT</u>	<u>DATE</u>	<u>MANAGER</u>	<u>AMOUNT</u>
7/3/2023	Pathway PEF 2013	(\$10,637,465.99)	2/12/2024	MSPERS Short-term	\$120,000,000.00
7/3/2023	Pathway PEF 2021	\$10,637,465.99	2/12/2024	Northern Trust MSCI World ex US	(\$120,000,000.00)
7/17/2023	Pathway PEF 2008	(\$11,000,000.00)	2/13/2024	GCM Grosvenor 2014-1	(\$525,000.00)
7/17/2023	GCM Grosvenor 2018-1	\$11,000,000.00	2/13/2024	GCM Grosvenor 2018-1	\$525,000.00
8/9/2023	Pathway PEF 2013	(\$11,821,628.00)	2/15/2024	MSPERS Short-term	(\$120,000,000.00)
8/9/2023	Westbrook RE Fund XI	\$11,821,628.00	2/15/2024	RiverBridge Partners	\$20,000,000.00
8/14/2023	Pathway PEF 2013	(\$5,898,166.20)	2/15/2024	Artisan Partners	\$40,000,000.00
8/14/2023	Pathway PEF 2021	\$5,898,166.20	2/15/2024	LSV Global Value	\$60,000,000.00
8/17/2023	AG Realty Value Fund X	(\$3,750,000.00)	2/21/2024	GCM Grosvenor 2014-1	(\$5,454,545.45)
8/17/2023	AG Realty Value Fund XI	\$3,750,000.00	2/21/2024	Heitman Value Partners V	\$5,454,545.45
8/22/2023	Heitman Value Partners IV	(\$5,192,727.27)	2/22/2024	UBS Trumbull Property Fund	(\$13,200,000.00)
8/22/2023	Heitman Value Partners V	\$5,192,727.27	2/22/2024	GCM Grosvenor 2018-1	\$13,200,000.00
9/14/2023	Pathway PEF 2008	(\$8,200,000.00)	2/22/2024	MSPERS Short-term	\$370,000,000.00
9/14/2023	GCM Grosvenor 2018-1	\$8,200,000.00	2/22/2024	Acadian	(\$70,000,000.00)
9/27/2023	Pathway PEF 2013	(\$6,570,306.32)	2/22/2024	ArrowStreet	(\$40,000,000.00)
9/27/2023	Pathway PEF 2021	\$6,570,306.32	2/22/2024	DFA	(\$25,000,000.00)
9/28/2023	Hancock Timber Fund	(\$4,243,690.00)	2/22/2024	Eagle	(\$65,000,000.00)
9/28/2023	Invesco VA Fund V	\$4,243,690.00	2/22/2024	Epoch	(\$100,000,000.00)
9/28/2023	Lazard	(\$90,000,000.00)	2/22/2024	Victory Sycamore	(\$50,000,000.00)
9/28/2023	MSPERS Short-term	\$90,000,000.00	2/22/2024	Wellington Small Cap	(\$20,000,000.00)
10/5/2023	Northern Trust S&P 500	(\$225,000,000.00)	2/28/2024	MSPERS Short-term	(\$300,000,000.00)
10/5/2023	MSPERS Short-term	\$225,000,000.00	2/28/2024	SIT Short Duration	\$300,000,000.00
10/16/2023	Pathway PEF 2013	(\$7,535,285.90)	2/29/2024	GCM Grosvenor PC 2023	\$8,900,000.00
10/16/2023	Pathway PEF 2021	\$7,535,285.90	2/29/2024	UBS Trumbull Property Fund	(\$8,900,000.00)
10/17/2023	Pathway PEF 2008	(\$12,200,000.00)	2/29/2024	JPM Strategic Property Fund	(\$9,000,000.00)
10/17/2023	GCM Grosvenor 2018-1	\$12,200,000.00	2/29/2024	Blue Owl Lending Fund 2023	\$9,000,000.00
10/18/2023	Reality Assoc. Fund XI	(\$6,110,742.00)	3/15/2024	CenterSquare Investment Management	\$75,000,000.00
10/18/2023	Invesco VA Fund VI	\$6,110,742.00	3/15/2024	Principal Capital Management	(\$8,000,000.00)
10/25/2023	MSPERS Short-term	\$365,000,000.00	3/15/2024	UBS Trumbull Growth & Income Fund	(\$6,000,000.00)
10/25/2023	Acadian	(\$100,000,000.00)	3/15/2024	UBS Trumbull Property Fund	(\$4,000,000.00)
10/25/2023	ArrowStreet	(\$70,000,000.00)	3/15/2024	JPM Strategic Property Fund	(\$7,000,000.00)
10/25/2023	Eagle	(\$100,000,000.00)	3/15/2024	Realty Associates Fund X	(\$15,000,000.00)
10/25/2023	Fisher	(\$20,000,000.00)	3/15/2024	Realty Associates Fund XII	(\$14,000,000.00)
10/25/2023	Marathon	(\$40,000,000.00)	3/15/2024	Invesco U.S. Income Fund	(\$5,000,000.00)
10/25/2023	Principal	(\$35,000,000.00)	3/15/2024	Pathway PEF 2008	(\$16,000,000.00)
10/31/2023	Northern Trust S&P 500	(\$225,000,000.00)	3/20/2024	Pathway PEF 2013	(\$4,980,783.25)
10/31/2023	MSPERS Short-term	\$225,000,000.00	3/20/2024	Pathway PEF 2021	\$4,980,783.25
11/2/2023	Pathway PEF 2013	(\$8,866,221.00)	3/21/2024	GCM Grosvenor 2014-1	(\$2,585,454.55)
11/1/2023	Westbrook RE Fund XI	\$8,866,221.00	3/21/2024	Heitman Value Partners V	\$2,585,454.55
11/10/2023	Pathway PEF 2013	(\$4,941,000.00)	3/25/2024	Pathway PEF 2013	(\$1,875,000.00)
11/10/2023	Pathway PEF 2021	\$4,941,000.00	3/25/2024	AG Realty Value Fund XI	\$1,875,000.00
11/17/2023	Reality Assoc. Fund XI	(\$18,750,000.00)	3/26/2024	MSPERS Short-term	(\$300,000,000.00)
11/17/2023	Reality Assoc. Fund XIII	\$18,750,000.00	3/26/2024	SIT Short Duration	\$300,000,000.00
12/13/2023	Pathway PEF 2013	(\$4,557,352.04)	3/26/2024	Pathway PEF 2013	(\$4,967,861.64)
12/12/2023	Pathway PEF 2021	\$4,557,352.04	3/26/2024	Pathway PEF 2021	\$4,967,861.64
12/14/2023	Heitman Value Partners IV	(\$2,473,636.36)	3/28/2024	Westbrook RE Fund X	(\$219,823.00)
12/14/2023	Heitman Value Partners V	\$2,473,636.36	3/28/2024	Westbrook RE Fund XI	\$219,823.00
12/15/2023	Westbrook RE Fund X	(\$224,792.00)	4/8/2024	Pathway PEF 2013	(\$3,539,370.93)
12/15/2023	Westbrook RE Fund XI	\$224,792.00	4/8/2024	Pathway PEF 2021	\$3,539,370.93
12/19/2023	Northern Trust BBG Agg	(\$244,000,000.00)	4/18/2024	Pathway PEF 2013	(\$4,169,703.80)
12/19/2023	MSPERS Short-term	\$244,000,000.00	4/18/2024	Pathway PEF 2021	\$4,169,703.80
12/19/2023	Trumbull Property Growth & Income	(\$3,750,000.00)			
12/19/2023	Reality Assoc. Fund XI	\$3,750,000.00			
12/20/2023	MSPERS Short-term	(\$25,000,000.00)			
12/20/2023	SIT Short Duration	\$25,000,000.00			
12/21/2023	Pathway PEF 2013	(\$9,826,386.54)			
12/21/2023	Pathway PEF 2021	\$9,826,386.54			
12/27/2023	GCM Grosvenor 2014-1	(\$8,500,000.00)			
12/27/2023	GCM Grosvenor 2018-1	\$8,500,000.00			
1/4/2024	MSPERS Short-term	(\$25,000,000.00)			
1/4/2024	SIT Short Duration	\$25,000,000.00			
1/18/2024	Reality Assoc. Fund XI	(\$1,585,513.00)			
1/18/2024	Invesco VA Fund VI	\$1,585,513.00			
1/25/2024	Heitman Value Partners IV	(\$2,397,272.73)			
1/25/2024	Heitman Value Partners V	\$2,397,272.73			
2/2/2024	GCM Grosvenor 2014-1	(\$15,000,000.00)			
2/2/2024	GCM Grosvenor 2023-1	\$15,000,000.00			
2/5/2024	Pathway PEF 2013	(\$6,908,090.92)			
2/5/2024	Pathway PEF 2021	\$6,908,090.92			
2/9/2024	Northern Trust S&P 500	(\$450,000,000.00)			
2/9/2024	MSPERS Short-term	\$450,000,000.00			

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# Trustee Workshop

## Trustee Workshop

The NCTR Trustee Workshop is developed with input from board trustees on the NCTR Trustee Education Committee. This matchless program is designed by and for public pension board trustees. Workshop agenda items offer a wide range of educational content for both new and experienced trustees.

## OUR SPONSORS

### 24th Annual Trustee Workshop

**July 21-24, 2024**

**Berkeley, California**

***Presented in conjunction with the Haas School of Business, University of California Berkeley***

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### Registration Rates:

- \$2,710/Attendee
  - \$500/Guest (*Guest fee applies to spouse/significant other, not a colleague.*)
- 



### Hotel Info:

Residence Inn Berkeley by Marriott

***(Room block closes June 14)***

- \$259 (plus tax)/night



**Reserve Your Room**

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## Past Workshops

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**23rd Annual Trustee Workshop**

**July 16–19, 2023**

**22nd Annual Trustee Workshop**

**July 24–27, 2022**

**21st Annual Trustee Workshop**

**July 26–28, 2021**

*The Kingsmill Resort, Williamsburg, VA**The Claremont, Berkeley, CA**Virtual*[Agenda](#)[Agenda](#)[Agenda](#)[CPE Form](#)[CPE Form](#)[CPE Form](#)

### Interested in attending this year's Trustee Workshop, but want to learn more?

To learn more about the topics covered at NCTR's Trustee Workshop, view some of our recent past agendas below. For additional questions, and/or for sponsorship interest, contact NCTR Executive Director R. Dean Kenderdine at [dkenderdine@nctr.org](mailto:dkenderdine@nctr.org) or Assistant Executive Director Robyn Wheeler at [rwheeler@ntr.org](mailto:rwheeler@ntr.org).



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# Meetings

## ANNUAL CONFERENCE

In 1955, a cadre of public retirement administrators came together in Baltimore, Maryland, to share information, best practices, and emerging issues. From this meeting, NASRA was formed, and the annual conference, held exclusively for members in early August each year, remains a highlight of the association.



The conference features leaders in the fields of retirement plan investment and administration covering a variety of subjects including investment management, world events applicable to the pension industry, the economy, human resources, trends, and more. (No conference sessions or activities are sponsored by associate members.)

## WINTER MEETING

Held typically the last weekend in February or the first weekend in March, in Washington, DC, NASRA hosts retirement system directors and their staff for a Sunday afternoon of roundtable discussions and presentations. The following day, all NASRA members are invited to hear analysis, forecasts, and overviews of current federal legislative and regulatory activities.

## LOOKING AHEAD

- **2024 Annual Conference - August 3-7, 2024 - Pittsburgh, Pennsylvania**
- **Winter Meeting - March 1-3, 2025 - Washington, D.C.**



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# Annual Conference

Providing the opportunity for all pension systems' staff, members and key stakeholders to come together, collaborate and share ideas, while hearing the latest pension news and challenges.

[Past Events](#)[Back to Calendar](#)

## 102nd Conference

**October 5–9, 2024**

**KEYNOTE  
SPONSORS**

## InterContinental Buckhead Atlanta Atlanta, GA

### Registration Rates:

- \$1,380/Active Member
- \$420/Guest of Active Member
- \$2,760/Commercial Member
- \$505/Guest of Commercial Member
- \$2,060/Attendee (General Sponsor)

*(Guest fee applies to spouse/significant other, not a colleague.)*

***More details coming soon!***

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### Interested in becoming a sponsor in 2024?

Contact NCTR Assistant Executive Director Robyn Wheeler at (916) 769-5909, or at [rwheeler@nctr.org](mailto:rwheeler@nctr.org).

[101st Conference Archive Page](#)



### *Interested in Partnering with NCTR?*

Becoming an NCTR event sponsor gives you the opportunity to be in a face-to-face environment where you can network and increase market visibility. Gain the competitive advantage, while making direct connections with high-level decision makers from more than 63 public pension systems from across the nation, with combined assets exceeding \$2 trillion in their trust funds.

## ***Not Yet a Member?***

NCTR Annual Conferences are held exclusively for the benefit of NCTR members.

**Become a Member**



5050 Laguna Blvd.  
Suite 112-460  
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**Phone:** (916) 769-5909

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# Mississippi Ethics Commission

*Promoting Integrity in State and Local Government*

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## Statement of Economic Interest FAQ

State law requires all filers to submit the Statement of Economic Interest electronically on this web site.

[RETURNING FILERS - Click here if you have filed an electronic Statement of Economic Interest before. \(You can retrieve your own USER NAME and reset your PASSWORD.\)](#)

[NEW FILERS - Click here if you have never before filed an electronic Statement of Economic Interest.](#)

[SEARCH Statements of Economic Interest](#)

### What is the Statement of Economic Interest?

The Statement of Economic Interest is a financial disclosure form filed annually by certain elected and appointed officials in state and local government. It is intended to disclose the sources of a public servant's income so that members of the public know where a public servant's personal financial interests lie. It does not disclose the amount of income a public servant receives. The Statement of Economic Interest promotes compliance with the Ethics in Government Law disclosing potential conflicts of interest. All information disclosed is for the previous calendar year.

### Who must file the Statement of Economic Interest?

1. All elected officials (except federal) whether it be statewide, district, county, municipal or any other political subdivision (except members of boards of levee commissioners and election commissioners) 2. All school board members, whether elected or appointed 3. Candidates for elected office 4. Persons appointed to fill a vacancy in an elected office 5. Executive directors or heads of state agencies, by whatever name they are designated, who are paid in part or in whole, directly or indirectly, from funds appropriated or authorized to be expended by the Legislature 6. Presidents and trustees of all state-

supported colleges, universities and junior colleges 7. Members of any state board, commission or agency, including the Mississippi Ethics Commission, charged with the administration or expenditure of public funds (except advisory boards or commissions) 8. Executive directors or board members of certain economic development entities (EDDs, REDAs, CDCs, Industrial Council) and airport authorities

**When must the Statement of Economic Interest be filed?**

Incumbents must file every year on or before May 1st. Persons appointed to office must file within 30 days of appointment. Candidates must file within 15 days after the deadline for qualification for public office. No one ever has to file more than once in a year, but you may need to supplement a form you have already filed. In that event, you must contact the Ethics Commission and get permission to supplement your filing.

**What information must be listed on the Statement of Economic Interest?**

The statement must include the following information for the preceding calendar year: (a) The full name and mailing address of the filer; (b) The filer's title, position and offices in government; (c) All other occupations of the filer, the filer's spouse or any person over the age of twenty-one (21) who resided in the filer's household during the entire preceding calendar year; (d) The names and addresses of all businesses in which the filer, the filer's spouse or any person over the age of twenty-one (21) who resided in the filer's household during the entire preceding calendar year held a position, and the name of the position, if the person: (i) Receives more than Two Thousand Five Hundred Dollars (\$2,500.00) per year in income from the business; (ii) Owns ten percent (10%) or more of the fair market value in the business; (iii) Owns an ownership interest in the business, the fair market value of which exceeds Five Thousand Dollars (\$5,000.00); or (iv) Is an employee, director or officer of the business; (e) The identity of the person represented and the nature of the business involved in any representation or intervention for compensation for any person or business before any authority of state or local government, excluding the courts, on any matter other than uncontested or routine matters. (Applies only to (1) an elected official, (2) an executive director or head of a state agency or (3) a president or trustee of a state-supported college, university or community or junior college, including members of the State Board for Community and Junior Colleges and the State Board of Institutions of Higher Learning.) (f) All public bodies, whether federal, state or local government, from which the filer, the filer's spouse or any person over the age of twenty-one (21) who resided in the filer's household during the entire preceding calendar year received compensation in excess of One Thousand Dollars (\$1,000.00) during the preceding calendar year, whether the compensation was paid directly or indirectly through another person or business.

**What are the penalties for failing to file or disclose required information?**

Anyone who fails to file within one year of the applicable deadline or who knowingly fails to disclose required information is guilty of a crime and can be fined up to \$10,000. If you file but realize later that you forgot to disclose some information, you must contact the Ethics Commission and get permission to supplement your filing.

**How do I file online if I have no access to the Internet or no Miss. drivers license?**

If you have no access to the Internet in your home or your workplace and no public Internet terminal within five (5) miles of your residence or if you do not have a valid Mississippi drivers license, you can apply to the Ethics Commission to submit your Statement of Economic Interest on paper. Contact the Ethics Commission for more information.

**Blind Trust Requirements**

Any public servant who has a blind trust must meet special disclosure requirements. The trustee of the blind trust must also perform certain duties. Click here to read the Blind Trust Section of the Ethics in Government Law.

[Annual Statement of Trustee of Blind Trust](#)



Mississippi Ethics Commission  
660 North St, Ste 100-C  
Jackson, MS 39202  
(601) 359-1285

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