#### **NEW HAMPSHIRE RETIREMENT SYSTEM**

#### **BOARD MEETING**

## Tuesday, February 11, 2025

## Agenda

9:45 a.m.	1.	Ascertain Quorum and Call	to Order	M. Kelliher
9:50 a.m.	2.	Approval of Minutes	(Pg. 4)	M. Kelliher
		<ul> <li>December 10, 20</li> <li>(Action Expect)</li> </ul>		
9:55 a.m.	3.	Standing Committee Report	rts	
		<ul> <li>Audit         <ul> <li>FY 24 GASB 68</li> <li>(Action Expected)</li> <li>Actuarial Audit</li> <li>(Action Expected)</li> </ul> </li> </ul>	ed)	M. Mezzapelle
		<ul> <li>Governance         <ul> <li>Fiduciary Insura</li> <li>Governance Mar</li> <li>Governance Mar</li> <li>(Action Expected)</li> <li>NH Counsel</li> <li>(Action Expected)</li> </ul> </li> </ul>	(Pg. 16) ance Report nual Revisions ed)	D. Roy
		Investments	(Pg. 28)	P. Provost
		<ul> <li>IIC Monthly Rep</li> </ul>	port Review (Dec. 31, 2024) eport ing Summary cy	R. Leveque R. Leveque R. Leveque R. Leveque
		Legislative	(Pg. 150)	K. Merrifield
		• Benefits	(Pg. 155)	J. Frederick
		<ul> <li>Consent Agenda</li> <li>PPCC</li> <li>ED Performance (Non-public Ex)</li> <li>CBA Update (Non-public Ex)</li> </ul>	( <b>Pg. 158</b> ) e Evaluation <b>pected</b> )	S. Hannan

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		<ul> <li>Ad Hoc Real Estate Committee         <ul> <li>Space Options</li> </ul> </li> </ul>	(Pg. 159)	J. Quigley
		(Action Expected)		
10:40 a.m.	4.	Callan's Capital Market Assumptions	(Pg. 160)	Jay Kloepfer/ Angel Haddad
11:10 a.m.	5.	Operating Reports		
		<ul> <li>Executive         <ul> <li>Strategic Plan</li> <li>Contracts</li> </ul> </li> </ul>	(Pg. 222)	J. Goodwin
		<ul> <li>PIO</li> <li>IT</li> <li>Investments</li> <li>Member Services</li> <li>Finance</li> <li>Human Resources</li> <li>Legal</li> </ul>	(Pg. 243) (Pg. 247) (Pg. 253) (Pg. 258) (Pg. 262) (Pg. 271) (Pg. 274)	R. Leveque N. Miller M. Mullen R. Cain
11:40 a.m.	6.	Consent Agenda	(Pg. 278)	M. Kelliher
11:50 a.m.	7.	Trustee Travel	(Pg. 279)	M. Kelliher
11:55 a.m.	8.	Action Items – December 10, 2024	(Pg. 280)	J. Goodwin
12:00 p.m.	9.	<b>Board Checkpoint Discussion</b>	(Pg. 281)	M. Kelliher
12:05 p.m.	10.	Adjournment		M. Kelliher
	11.	Informational Materials	(Pg. 282)	
		Draft Quarterly Report to the General Cour Executive Summary of Board Actions 2025 Board Action Calendar Committee Membership Trustee Confidential Contact Information Trustee Appointments and Terms NHRS Conference Resource List NHRS Acronyms	rt	

Remote access information will be provided in advance of the meeting at: <u>https://www.nhrs.org/meetings-events/event/2025/02/11/default-calendar/board-of-</u> <u>trustees-meeting</u>

The following email will be monitored throughout the meeting by someone who can assist with and alert the Board to any technical issues: <u>public\_relations@nhrs.org</u> NHRS Board of Trustees

DRAFT Minutes – December 10, 2024

**Note:** These draft minutes from the December 10, 2024, Public Session are subject for approval at a subsequent Board of Trustees meeting.

#### **Board of Trustees**

#### December 10, 2024

#### **DRAFT** Public Minutes

#### New Hampshire Retirement System 54 Regional Drive Concord, New Hampshire 03301

Participating: Trustees Maureen Kelliher, Chair; Sue Hannan, Jason Henry, Robert Maloney, Andrew Martineau, Ken Merrifield, Monica Mezzapelle, Joshua Quigley, and Don Roy.

Absent: Trustees Jon Frederick and Paul Provost.

Staff: Jan Goodwin, Executive Director; Timothy Crutchfield, Deputy Director and Chief Legal Counsel; Rosamond Cain, Director of Human Resources (HR); John Laferriere, Director of Information Technology (IT); Raynald Leveque, Chief Investment Officer (CIO); Nancy Miller, Director of Member Services; Marie Mullen, Director of Finance; Shana Biletch, Investment Officer; Nina Calkins, Administrative and Contact Center Manager; Mark Cavanaugh, Deputy Counsel and Compliance Officer; Diana Crichton, Hearings Examiner; Jonathan Diaz, Investment Officer; Deanna Higgins, Contact Center Supervisor; Heather Hoffacker, Internal Auditor; Mariel Holdredge, Executive Assistant; Jesse Pasierb, Investment Operations Analyst; and Gregory Richard, Senior Investment Officer.

Guests: John Weaver, Brianna Burns: McLane Middleton Law; Angel Haddad: Callan; David Levine: Groom Law.

Chair Maureen Kelliher called the December 10, 2024, regular meeting of the NHRS Board of Trustees to order at 9:32 a.m.

A quorum was established and Chair Kelliher called for a vote to approve the minutes of the October 8, 2024, Board meeting. On a motion by Trustee Henry, seconded by Trustee Roy, the Board voted unanimously to approve the meeting minutes.

Trustee Quigley, the ad hoc Real Estate Committee Chair, recommended the Board enter a non-public session to discuss office space options. On a roll call vote, motioned by Trustee Hannan and seconded by Trustee Henry, the Board entered into a non-public session to discuss the possible lease or acquisition of real property under RSA 91-A:3, II(d). Non-trustees participating in this non-public session included NHRS staff: Jan Goodwin, Timothy Crutchfield, Rosamond Cain, John Laferriere, Raynald Leveque, Nancy Miller, and Marie Mullen. Non-NHRS staff participating included Brianna Burns and John Weaver of McLane Middleton.

On a motion by Trustee Henry, seconded by Trustee Maloney, the Board voted unanimously

to conclude the non-public session and seal the non-public minutes.

Trustee Mezzapelle provided the Audit Committee report, noting the Committee met this morning prior to the Board meeting, during which the Committee heard updates from Internal Audit and received staff's presentation of the annual ethics survey report. This year's responses revealed no ethical concerns, and the percentage of responses was in line with expectations. On a motion by Trustee Roy, seconded by Trustee Martineau, the Board voted unanimously to accept the recommendation of the Audit Committee to approve the annual ethics survey scorecard as presented.

Next, the Board heard from Finance Director Marie Mullen who presented a summary of the unaudited draft of the Annual Comprehensive Financial Report (ACFR). On a motion by Trustee Henry, seconded by Trustee Roy, the Board voted to accept the recommendation of the Audit Committee, contingent upon its receipt and acceptance of the ACFR for FY 24 and Plante Moran's final audit opinion letter.

Trustee Mezzapelle concluded her report with the Committee's recommendation to authorize staff to issue an RFP for an actuarial audit. On a motion by Trustee Roy, seconded by Trustee Henry, the Board accepted the Audit Committee's recommendation as presented.

Trustee Roy reported that the Governance Committee met on November 26, 2024, to review staff recommendations on the proposals received for Investment Counsel and Securities Litigation services from the RFP issued in August. It voted to recommend engaging with four firms: Foster Garvey, and Nossaman for Investment Counsel, and Labaton, Keller, and Sucharow, and Berman Tobacco for Securities Litigation. The Committee requested the Board authorize staff to proceed with these engagements. On a motion by Trustee Mezzapelle, seconded by Trustee Henry, the Board accepted the recommendation, as proposed, allowing staff to engage with the recommended law firms for legal counsel services, subject to contract and legal review.

Next, in Trustee Provost's absence, Board Chair Kelliher reported on the October 8, 2024, Independent Investment Committee (IIC) meeting, with four of the five members participating and one position vacant. The IIC heard from CIO Raynald Leveque, who reviewed investment returns and holdings and reported on the team's investment activities and work plan. The Committee then reviewed and discussed the proposed new Strategic Asset Allocation (SAA) rebalancing ranges, and guidelines for the Infrastructure Investment Asset Class. The IIC unanimously approved and recommended to the Board the adoption of the MSCI All Country World Index benchmark for the Global Equity Asset Class, rebalancing ranges for Global Equity, Global Fixed Income, Cash Equivalents and Private Credit, and the Infrastructure Guidelines.

Chair Kelliher invited Mr. Leveque to report on NHRS' recent portfolio performance. He highlighted strong absolute returns despite some underperformance against benchmarks due to concentrated market gains. Senior Investment Officer Gregory Richard reported that as a part of prudent risk management, the portfolio was rebalanced to reduce the overweight position in Global Equity and address the underweight position in public Fixed Income. Mr. Leveque concluded by discussing strategies to address inflationary risks, allocate capital to infrastructure, and maintain focus on long-term performance metrics and peer comparisons. As of September 30, 2024, the Plan's assets totaled \$12.76 billion.

Chair Kelliher then entertained a motion to conditionally approve and accept the

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Comprehensive Annual Investment Report (CAIR) for FY 24, contingent on the recommendation of the IIC, scheduled to act on the CAIR immediately following the Board meeting. On a motion by Trustee Mezzapelle, seconded by Trustee Maloney, the Board conditionally approved the CAIR.

Angel Haddad of Callan LLC, NHRS' general investment consultant, provided an investment performance refresher, focusing on performance evaluation of the total plan. The presentation emphasized the importance of combining qualitative and quantitative tools, using consistent and relevant benchmarks, and evaluating risk-adjusted returns across public and private investments. Mr. Haddad highlighted challenges in interpreting short-term results, especially for Private Equity, due to market cycles and data nuances, while affirming the fund's long-term strength and alignment with Plan objectives.

On a vote motioned by Trustee Hannan, seconded by Trustee Maloney, the Board accepted the recommendation of the IIC to approve the SAA Ranges and Benchmarks as presented.

Before concluding his Committee report, CIO Leveque announced a new investment dashboard using Microsoft Business Intelligence will launch on the website in the new year, enhancing public transparency by dynamically displaying the fund's quarterly market values and investment managers by asset class.

Trustee Merrifield gave an update on the Legislative Committee, which has not met since the last Board meeting, but plans to meet in January once new legislative titles have been completed with text. As of December 6, 2024, 12 legislative service requests (LSRs) have been filed that may impact NHRS.

In Trustee Frederick's absence, Trustee Andrew Martineau provided the Benefits Committee report, noting it met on November 5, 2024, and December 3, 2024, approving a total of 11 disability applications and reviewing the CY 23 Gainful Occupation (GO) Compliance Report and recommended Board approval, and implement the related excess earnings offsets and noncompliance offsets. On a motion by Trustee Henry, seconded by Trustee Roy, the Board voted to accept the recommendation of the Benefits Committee to approve the 2023 GO Compliance Report as presented.

Trustee Hannan provided the PPCC report, which met earlier in the morning prior to the Board meeting. The Committee reviewed proposals from executive search firms for the new Head of Private Markets position and unanimously recommended Wilbanks Partners based on their strong approach to diversity, clear timeline, guarantees, and enhancements to the job description.

Deputy Director and Chief Legal Counsel Tim Crutchfield introduced David Levine of Groom Law, NHRS' external fiduciary counsel. The Board heard a presentation from Attorney Levine, a best practice presented annually, giving an overview of Trustees' fiduciary duties.

Trustee Don Roy excused himself from the meeting at the conclusion of the Fiduciary presentation at 11:20 a.m. and was subsequently absent for the remainder of the session.

Executive Director Goodwin gave her executive report, highlighting key performance measure (KPM) scores for October and November at 94.2% and 95.1%, respectively. The PensionGold Version 3 (PGV3) project is 99% completed. We will be extending the PGV3 software warranty through December 3, 2025, to allow for further testing and verification, with the transition

from the implementation team to ongoing support now complete. Additional efforts have focused on year-end preparations and refining customer service feedback processes for the upcoming year.

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Executive Director Goodwin then invited IT Director John Laferriere to report on postimplementation challenges with the PGV3 system upgrade, including data accuracy concerns, manual processing, and difficulties adapting to new features, which have impacted operational efficiency and stakeholder support. To address these issues, Mr. Laferriere presented a proposal to engage a vendor for a comprehensive system review of PGV3 to validate its alignment with design requirements and recommend improvements, prioritizing actionable solutions within the remaining warranty period.

A discussion then ensued and Chair Kelliher entertained a motion to enter into a non-public session to further discuss vendor contracts under RSA 91-A:3 II(c).

On a roll call vote motioned by Trustee Maloney, seconded by Trustee Hannan, the Board entered into a non-public session. Non-trustees participating in this non-public session included NHRS staff: Jan Goodwin, Timothy Crutchfield, Rosamond Cain, John Laferriere, Raynald Leveque, Nancy Miller, and Marie Mullen.

On a motion by Trustee Henry, seconded by Trustee Hannan, the Board voted unanimously to conclude the non-public session and seal the non-public minutes. No action was taken during the non-public session.

On a motion by Trustee Quigley, seconded by Trustee Hannan, the Board voted to accept the recommendation of the Executive Director to approve the procurement of services, as presented in the Board materials, subject to contract and legal review.

Director of Member Services Nancy Miller reported progress on key projects, including testing and issuance of the one-time temporary supplemental allowance (TSA) to retirees in November and again in December for one outstanding population and preparation of annual member statements, which faced challenges and delays stemming from adapting processes to the new pension administration system. Efforts to reduce backlogged refund issuance and benefit finalizations were highlighted, alongside reliance on LRS to deliver critical system updates supporting new benefit calculations.

CIO Raynald Leveque reviewed the Investments operating report, providing updates on investment performance and operations, noting that recent market conditions contributed to the three- and five-year total fund underperformance to benchmarks. He highlighted key initiatives, including completing a global equity and fixed income rebalancing, preparing for upcoming private equity and private credit mandates, and advancing the strategic goals for the Investments department.

Finance Director Marie Mullen reported that the Finance team has been heavily focused on completing the FY 24 financial statements, the ACFR, and the annual audit while maintaining efforts to improve Employer Reporting and cash receipt processes. Additional highlights include the hiring of a new Employer Reporting Manager and continued progress on the project to automate posting of cash payments. She noted upcoming priorities such as audit improvements, Form 1099-R distribution and reporting for CY 24, and GASB 68/75 reporting.

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Director of HR Rosamond Cain reported on recent staffing updates, including the successful hiring of three positions and ongoing recruitment for several others. The Communications Taskforce continues its initiative following a well-received staff presentation in October, and progress has been made on the salary benchmarking phase of the all-position salary survey. Upcoming priorities include preparing for collective bargaining agreement (CBA) negotiations as well as updating position descriptions and training manuals to reflect changes resulting from PGV3.

Deputy Director and Chief Legal Counsel Timothy Crutchfield reported that the Legal department met all seven KPMs for October and November, successfully managing appeals and completing 20 standard audits and all 23 GASB audits for 2024. Efforts are ongoing to implement recent legislative changes, including the violent accidental disability benefit application process in coordination with the Department of Safety. Legal is also working with Groom Law to contest a \$4.8 million IRS penalty, asserting timely tax payments were made. Additionally, the annual ethics survey report was finalized, and the annual Statement of Financial Interests form will be distributed to Trustees and IIC members.

Executive Director Jan Goodwin provided the Legislative Affairs and Communications operating report, highlighting progress on implementing three NHRS-related bills, with one completed and two now in the programming phase. The team hosted or participated in 12member education events and collaborated on employer and retiree messaging while preparing for the 2025 legislative session and planning additional educational events.

Director of IT John Laferriere reported on the department's key achievements, including completing all remediation from penetration re-tests and implementing measures to limit security exposure with the State of NH. The department achieved a 62% cost reduction through cloud optimization, successfully migrated the Board document system, and is piloting an electronic signature program for improved member and stakeholder experience.

Chair Kelliher presented the Consent Agenda which included modification participation requests and an administrative recommendation reconsideration request. On a motion by Trustee Henry, seconded by Trustee Mezzapelle, the Board voted to approve the Consent Agenda, as presented.

There were no travel reports or requests.

Executive Director Goodwin provided an update on Action Items from the October 8, 2024, Board meeting, noting all action items except for number six, which is ongoing, will be completed at the end of today's meeting.

Chair Kelliher requested that the Board enter into a non-public session under RSA 91-A:3 II(c) to discuss the Board's self-evaluation. On a roll call vote motioned by Trustee Hannan, seconded by Trustee Henry, the Board entered into a non-public session.

On a motion by Trustee Hannan, seconded by Trustee Henry, the Board voted to conclude the non-public session and seal the minutes for the non-public session as well as seal the non-public minutes for the Executive Director's non-public session.

With no further business to discuss, on a motion by Trustee Henry, seconded by Trustee Maloney, the Board voted unanimously to adjourn the meeting at 12:13 p.m.

Respectfully submitted,

Mariel Holdrege Executive Assistant

### AUDIT COMMITTEE



То:	Board of Trustees & Audit Committee
From:	Marie Mullen, Director of Finance
Date:	February 11, 2025
Re:	GASB 68 & 75 Reports as of June 30, 2024
Item:	Action: $\square$ Discussion: $\square$ Informational: $\square$

The Governmental Accounting Standards Board (GASB) Statement 68 Plan Report (Schedule of Employer Allocations and Schedule of Pension Amounts by Employer) and GASB Statement 75 Plan Report (Schedule of Employer Allocations and Schedule of Other Post-Employment Benefits ((OPEB)) Amounts by Employer) of the New Hampshire Retirement System as of June 30, 2024, were prepared using employer reporting schedules developed by the consulting actuaries, Gabriel Roeder Smith & Company. In accordance with these two GASB pronouncements, these reports allocate the proportionate share of the total Pension and OPEB liabilities amongst all NHRS participating employers based on their contributions submitted.

Plante Moran, the system's external auditor, has completed its audits and issued an unmodified opinion. The final versions of the reports will be forwarded under a separate e-mail. Staff is recommending that the Audit Committee approve and accept the June 30, 2024 GASB Statements 68 and 75 Reports and to recommend to the full Board their acceptance and release, and that the Board of Trustees act according to the Audit Committee's recommendation.

### **GOVERNANCE COMMITTEE**



To: NHRS Board of Trustees

From: Mark F. Cavanaugh, Deputy Counsel and Compliance Officer

Date: February 3, 2025

Re: Annual Governance Manual Revisions

Item: Action: X Discussion: Informational:

Each year, the NHRS Board is asked to approve and adopt a revised Governance Manual for the calendar year. A copy of the proposed revisions for 2025 will be made available by a separate link due to its size.

The only revisions recommended by staff this year consist of the revised Audit Committee Charter approved by the Bard at its October 2024 meeting and updates to the information in the Appendices and Exhibits.

At its February 3, 2025 meeting, the NHRS Governance Committee voted unanimously to recommend to the full Board that it approve the annual revisions to the Governance Manual.

Legal staff respectfully requests that the Board accept the recommendation of the Governance Committee to approve the 2025 Governance Manual.



То:	NHRS Board of T	rustees	
From:	Mark F. Cavanau	gh, Esq., Deputy Cou	nsel and Compliance Officer
Date:	February 4, 2025		
Re:	NH Counsel - Rec	quest for Proposal (RF	P)
Item:	Action: X	Discussion:	Informational:

It is NHRS' policy to conduct RFPs at least every five years for various legal counsel (investment counsel, fiduciary and tax counsel and NH counsel for administrative proceedings, litigation and employment matters). The last RFPs were issued in 2019. Next up this year is NH Counsel for which the current engagement terminates effective 2/1/25 with provisions to hold over until formal renewal or new counsel are selected.

Attached is a draft RFP for NH Counsel for the Board's consideration. It is staff's intent to issue the RFP shortly after the Board authorizes it. Further, it is staff's plan to present its engagement recommendation(s) to the Governance Committee in advance of the April Board meeting for consideration at that time.

At its meeting on February 3, 2025 the Governance Committee unanimously voted to recommend to the Board that it authorize staff to issue the RFP as presented today.

Legal staff respectfully requests that the Board accept the recommendation of the Governance Committee to approve the NH Counsel RFP.

#### **REQUEST FOR PROPOSALS FOR LEGAL SERVICES**

#### AS NEW HAMPSHIRE COUNSEL

This Request for Proposals ("RFP" or "solicitation") invites the submission of offers to the New Hampshire Retirement System ("NHRS") for the provision of legal services as New Hampshire Counsel. NHRS reserves the right to enter into letters of engagement with one or more entities for such counsel.

#### A. LEGAL SERVICES SOUGHT

#### I. Background.

The New Hampshire Retirement System ("NHRS") is a contributory public employee governmental defined benefit plan intended to be qualified under section 401(a) of the Internal Revenue Code (Code) and funded through a trust that is exempt from tax under Code Section 501(a).). Assets under management were approximately \$12.2 billion as of June 30, 2024. NHRS provides benefits to its eligible members and their beneficiaries upon retirement, disability, death or other termination of employment. Benefits are based on members' average final compensation and years of creditable service. Separate benefit structures apply to Group I members (employees and teachers) and Group II members (police officers and firefighters). In addition, NHRS administers a Code Section 401(h) subtrust for four post-retirement medical plans covering qualified retired members. The NHRS has approximately ?48,000 active members including firefighters, police officers, teachers, and state and local government employees. Approximately 38,000 individuals currently receive a monthly benefit from NHRS.

The plan is administered by the NHRS Board of Trustees ("Board"), consisting of 13 members including the State Treasurer as an ex-officio member, four public non-members, four employer representatives, and one representative from each of the four member classifications. NHRS is governed by New Hampshire RSA 100-A, the rules and regulations promulgated by the Board and Federal laws. The Board of Trustees formulates administrative policies and procedures, authorizes benefit payments to retirees and their beneficiaries and manages the trust fund.

NHRS investment activity is managed and administered by the Independent Investment Committee ("IIC") which is charged with statutory authority under New Hampshire RSA 100-A:14-b and RSA 100-A:15 to review investment performance, choose fund managers and make investments and deposits on behalf of the Board.

The Executive Director oversees all NHRS administrative functions which are carried out by the staff of approximately ?65 employees. For purposes of this RFP, the Chief Legal Counsel shall be considered as a "designee" of the Executive Director and will have the authority to act in the stead of the Executive Director in any and all instances as outlined below.

#### II. General Requirements.

The activities of the NHRS require legal support as necessary and appropriate. It is expected that outside counsel will provide counsel and representation before third parties as requested. The nature and extent of legal services needed by the NHRS cannot be predetermined with precision. Consequently, the Board may enter into letters of engagement with one or more law firms for the provision of legal services as described below.

#### III. Statement of Work.

- a. NHRS anticipates needing legal advice and representation on matters such as:
  - 1. Entitlement to and calculation of benefits under RSA 100-A;
  - 2. Administrative hearings;
  - 3. Drafting, reviewing and interpreting legislation;
  - 4. General employment law;
  - 5. Collective bargaining, unfair labor practices, grievances and arbitration.
  - 6. Vendor contract review
- b. Under the direction of NHRS Executive Director or designee, the legal services required may include:
  - 1. Providing oral and written legal advice to the NHRS;
  - 2. Advising the NHRS on potential risks and liability;
  - 3. Attending Board or Committee meetings and making or reviewing presentations to the Board or its Committees;
  - 4. Representing the NHRS before third parties, including other governmental entities, in matters not involving litigation;
  - 5. Representing the NHRS or the Board in litigation before administrative and judicial tribunals including administrative appeals of NHRS actions;
  - 6. Drafting or reviewing NHRS internal handbooks, policies and procedures;
  - 7. Drafting or reviewing legislative and regulatory materials;
  - 8. Training for the Board, its Committees, and staff, as appropriate.

#### IV. Engagement Provisions.

- a. Compensation.
  - 1. Legal fees will be provided in accordance with section B.III. of this RFP under Fee Proposals.
  - 2. Award of an engagement does not guarantee the selected firm will receive a minimum amount of work.
  - 3. Only reasonable, allowable, and allocable direct costs and expenses are reimbursable. Expenses are reimbursable at cost and shall not contain a mark-up of any kind. Such expenses include:
    - a. Postage;
    - b. Messenger and overnight delivery services if requested by the Executive Director or designee.

Expenses that are non-reimbursable include:

- a. Any cost relating to telephone calls, emails, and instant and text other than billable hours spent on the same;
- b. Photocopying;
- c. Secretarial services;
- d. Local transportation (including after-hours transportation);
- e. Paraprofessional overtime expenses; and
- f. Non-local travel expenses without the prior written authorization of the Executive Director or designee.
- 4. The Executive Director or designee reserves the right to object to any legal fees and expenses reasonably considered to be excessive.
- b. The period of performance shall be for three years from the effective date. The Engagement shall extend automatically for two additional periods of performance not to exceed one (1) year each unless NHRS provides written notice to the firm of its intent not to exercise the option not less than thirty (30) days prior to the Engagement's original expiration date or as extended by an exercised option.
- c. Administration Data.
  - 1. The Executive Director is responsible for this Engagement:

Name: Jan Goodwin, Executive Director Address: New Hampshire Retirement System 54 Regional Drive Concord, NH 03301

Telephone: (603) 410-3520 Fax: (603) 410-3505 Email: jan.goodwins@nhrs.org

- 2. All instructions, notices, demands, other correspondence to be given by either party to the other party shall be in writing, including electronic mail, first class mail with verification of delivery, or by a recognized delivery or courier service that maintains written verification of actual delivery. Such communications shall be sufficient and effective upon delivery to the Executive Director, his designee or the designated point of contact in section B.II.c. or designee.
- 3. Invoices for worked performed and expenses incurred shall be submitted to the Executive Director monthly no later than fifteen (15) days after the end of the preceding month. Monthly invoices shall be in two parts consisting of:
  - A. A summary table showing:
    - i. The names of each attorney and paraprofessional who performed work during the preceding month;
    - ii. A brief description of the work performed by date broken down by matter worked on;
    - iii. The date and time spent by each attorney and paraprofessional during the preceding month broken down by quarter hour;
    - iv. The hourly rate for each attorney and paraprofessional;
    - v. The total charge (hours x hourly rate) for each attorney and paraprofessional; and
    - vi. Total expenses incurred for the preceding month broken down by type of expense.
  - B. Or another mutually agreeable format.
- d. Special Engagement Terms.
  - 1. All attorneys working on matters pursuant to this Engagement shall at all times be active members in good standing of the Bar of the State of New Hampshire.
  - 2. This Engagement shall be effective upon execution of a Letter of Engagement.

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- 3. This Engagement may be terminated by the Board or its designee at its discretion at any time with ten (10) days prior written notice to the firm.
- 4. If the continued provision of legal services to the Board would create a professional conflict of interest that is not subject to mitigation under the New Hampshire Rules of Professional Conduct or other applicable authority (mitigation shall not include a waiver of a conflict by the Board), the firm shall immediately cease performance and notify the Executive Director in writing.
- 5. Dispute resolution.
  - A. The parties waive the right to trial by jury in any judicial action, proceeding or counterclaim arising from this Engagement.
  - B. Any legal proceedings involving this Engagement shall be filed with a state court located in the State of New Hampshire with subject matter jurisdiction, and New Hampshire law shall apply, excluding its choice of law provisions.
- 6. Neither party will, directly or indirectly, assign or transfer any claim arising out of this Engagement.
- 7. The failure of either party to enforce any of the terms of this Engagement shall not be a waiver or relinquishment of any future requirements of this Engagement.
- 8. This Engagement, which includes the Letter of Engagement, the RFP, and the firm's proposal, constitutes the entire engagement between the parties regarding the subject matter of this Engagement. It replaces and supersedes any previous understandings or representations between the parties, whether written or oral, regarding the subject matter of this Engagement. Except as explicitly stated otherwise, this Engagement may not be modified, amended, changed, or altered except in writing and executed by both parties.
- 9. The section headers in this Engagement are for information only and shall not be used to construe the meaning of any particular clause.
- 10. The firm shall at all times maintain sufficient insurance to reimburse the Board and the participants and beneficiaries of the NHRS in full for any professional liability on its part.
- 11. This Engagement is severable. If any provision or term hereof is determined, for any reason, to be illegal or otherwise unenforceable, such determination shall not affect the validity of the remaining provisions and terms hereof. The provision or term determined to be illegal or unenforceable shall be amended to conform to applicable law and the intent of the parties.
- 12. The rights and remedies described in this Engagement are cumulative and are in addition to any other remedies available to the Board in law or in equity, and the

exercise of any one or more of such remedies shall not be construed as a waiver of any other right or remedy.

- 13. The firm shall promptly notify the Executive Director or designee of any change in the availability of the personnel proposed to perform legal services under this Engagement, and shall propose a replacement of similar experience and knowledge who will be subject to acceptance by the Executive Director.
- 14. The firm shall assist the NHRS in asserting a claim of privilege when so requested.
- 15. The firm shall not subcontract any of the services of to be performed under this Engagement without the prior written consent of the Executive Director or designee.
- 16. In the event of a conflict between a Letter of Engagement, the Board's Request for Proposals (RFP), and the firm's Proposal, the order of precedence shall be:
  - A. the Letter of Engagement;
  - B. the RFP; and
  - C. the firm's Proposal.
- 17. The firm shall perform such work as is necessary to correct errors, defects, and omissions in the services provided under this Engagement without undue delay and without cost to the NHRS.
- 18. The Executive Director or designee may order the firm to suspend, delay, or interrupt all or any part of work it is performing without cost for such period of time as he or she may deem appropriate.
- 19. Following expiration or termination of this Engagement, the firm shall not represent any person or entity in a matter, proceeding, or lawsuit substantially related to this Engagement for a period of no less than five years after such termination.

#### **B. INSTRUCTIONS TO RESPONDING LAW FIRMS**

#### I. In General.

- a. Responding firms must submit an original and four (4) copies of each technical and fee proposal and one electronic copy of each proposal by email.
- b. Proposals shall be delivered to:

Timothy J. Crutchfield, Chief Legal Counsel New Hampshire Retirement System 54 Regional Drive Concord, NH 03301

- c. Proposals must be received either electronically or hard copy no later than Friday, March 14, at 4:00 pm EST. Untimely proposals shall not be considered.
- d. Questions about the solicitation shall be in writing and directed to:

Timothy J. Crutchfield, Chief Legal Counsel New Hampshire Retirement System 54 Regional Drive Concord, NH 03301

Fax: (603) 410-3505 Email: <u>tim.crutchfield@nhrs.org</u>

Questions must be received by Friday, February 28, at 4:00 pm EST in order to be assured of a response. Questions and responses shall be shared with all entities at their request.

- e. The Board or NHRS staff may convene a pre-proposal meeting to which all or some of the responding firms shall be invited.
- f. The Board may amend or terminate this RFP at its discretion at any time prior to awarding a Letter of Engagement.
- g. Technical proposals shall be no more than ten (10) pages in length, excluding a cover page described in section B.I.m., below, an introductory page, an index page, and resumés for all personnel identified as available to work on the contract. Pages exceeding this limit may not be read or evaluated.
- h. Fee proposals shall be no more than three (3) pages in length. Pages exceeding this limit may not be considered or evaluated.
- i. The text of all proposals shall be in 12 point Times New Roman type.
- j. Pages of a proposal containing confidential or proprietary information shall contain a header or footer with an appropriate restrictive legend.
- k. Under no circumstances shall the NHRS be responsible for the expense of preparing a proposal for this RFP.
- 1. Proposals shall be self-containing and shall not refer to a web site or other external sources for additional information.
- m. The cover page of the technical proposal shall contain the name, title, street address, telephone number, email address and signature of an individual attesting that:
  - 1. He or she has actual authority to accept the terms of engagement on behalf of the Offeror;

- 3. The entity accepts all of the terms of the engagement as set forth herein.
- n. Proposals may be withdrawn at any time up to award. Unless withdrawn, all offers shall remain in effect for ninety (90) days after the proposal due date, including any extensions thereto.
- o. Graphics in a technical or price proposal shall be included in their respective page limits.

#### II. <u>Technical Proposals</u>.

Responding firms shall provide in their technical proposals:

- a. The names, titles, and resumés of the attorneys who are expected to provide legal services under the Engagement;
- b. A description of the experience and knowledge of those attorneys for the past ten (10) years (or for the entire time they have been practicing, if shorter) who will be providing services, including:
- c. The name of the attorney who will serve as the point of contact for strategic, tactical, administrative, and performance matters relating to the Engagement;
- d. A brief description of how attorney assignments are made, how work load is managed by the firm, and how back up assistance is provided;
- e. The percentage of annual attorney turnover;
- f. A certification that the firm is not and has not been for the past fifteen (15) years disbarred or suspended by the State of New Hampshire, the U.S. Government, or any other jurisdiction from doing business, and that no attorney proposed to work on the Engagement has been disbarred or suspended by any jurisdiction for the past fifteen (15) years;
- g. A certification that the firm has no known conflicts that would restrict its ability to provide advice to the Board; if any conflict is known, the nature of the conflict and its effect on performance of the contract must be described in detail;
- h. A description of the firm's conflicts avoidance procedures;
- i. A description of the firm's professional liability insurance applicable to the work described in this contract, including limits of coverage;
- j. The firm's process and resources for keeping abreast of proposed and actual changes in the laws affecting its area(s) of engagement;
- k. A description of any other relevant experience and knowledge; and

1. Names and telephone numbers of three clients for purposes of reference checking.

#### <u>Note: Technical proposals shall not contain or describe proposed hourly rates or other price</u> factors. Proposals violating this requirement shall not be considered.

#### III. Fee Proposals.

Responding firms shall provide in their fee proposals the hourly rates of the attorneys and paraprofessionals proposed to perform services and their fully-loaded hourly rates, including discount rates for governmental plans. Firms are also encouraged to provide blended rates. Firms agree to further negotiation of fees.

#### IV. Evaluation of Proposals.

- a. Proposals shall be reviewed for soundness of technical capability and reasonableness of fees. Technical factors shall constitute 2/3 of a proposal's overall rating and fees shall constitute 1/3 of its overall rating. Appropriate NHRS staff will evaluate the proposals and provide recommendations to the Board, or a Board committee, for selection.
- b. Firms may be required to make presentations to the Board or a Board committee prior to award of an Engagement. Firms shall be solely responsible for any costs associated with such presentations, including travel expenses.

# **INDEPENDENT INVESTMENT COMMITTEE (IIC)**



# Independent Investment Committee's Monthly Report to the Board

NHRS Investment Team Board of Trustees Meeting February 11, 2025

# Total Plan Performance as of December 31, 2024



	Net	of Fees Return	ns for Periods En	ded Decen	nber 31, 202	24			
Composite	Total Fund Weighting As of 12/31/2024	Last Month	Last 3 Months	FYTD	CYTD	LTM	3-YR	5-YR	10-YR
Total Domestic Equity	31.83%	-4.39%	1.59%	8.89%	20.11%	20.11%	6.41%	12.13%	11.14%
Domestic Equity Benchmark(1)		-3.06%	2.63%	9.03%	23.81%	23.81%	8.01%	13.42%	12.63%
Excess Return		-1.33%	-1.04%	-0.13%	-3.70%	-3.70%	-1.59%	-1.29%	-1.50%
Total Non US Equity	18.58%	-2.92%	-5.92%	0.90%	6.73%	6.73%	1.55%	4.43%	5.44%
Non US Equity Benchmark(2)		-1.94%	-7.60%	-0.15%	5.53%	5.53%	0.82%	4.10%	4.80%
Excess Return		-0.97%	1.68%	1.04%	1.19%	1.19%	0.73%	0.32%	0.64%
Total Fixed Income	21.29%	-1.71%	-3.10%	2.14%	1.55%	1.55%	-1.48%	0.92%	2.11%
Bloomberg Capital Universe Bond Index		-1.51%	-2.73%	2.32%	2.04%	2.04%	-1.95%	0.06%	1.73%
Excess Return		-0.20%	-0.37%	-0.19%	-0.49%	-0.49%	0.47%	0.87%	0.38%
Total Cash	1.72%	0.40%	1.21%	2.54%	5.25%	5.25%	4.00%	2.52%	1.85%
3-Month Treasury Bill		0.40%	1.17%	2.55%	5.25%	5.25%	3.89%	2.46%	1.77%
Excess Return		0.00%	0.04%	-0.02%	0.00%	0.00%	0.11%	0.06%	0.09%
Total Real Estate (Q3)*	8.78%	0.03%	-0.18%	-0.01%	-5.40%	-5.40%	0.95%	5.63%	8.06%
Real Estate Benchmark(3)	0.1070	0.01%	0.02%	-0.64%	-8.04%	-8.04%	-1.04%	2.05%	5.22%
Excess Return		0.03%	-0.20%	0.63%	2.64%	2.64%	1.99%	3.58%	2.84%
Total Private Equity (Q3)*	13.34%	1.49%	1.46%	1.50%	5.23%	5.23%	4.43%	12.88%	12,18%
Private Equity Benchmark(4)	10.0470	2.20%	6.64%	10.62%	37.37%	37.37%	13.74%	18.55%	16.43%
Excess Return		-0.71%	-5.18%	-9.11%	-32.14%	-32.14%	-9.32%	-5.68%	-4.25%
Total Private Debt (Q3)*	4.46%	1.81%	1.73%	1.74%	5.71%	5.71%	6.00%	5.86%	6.18%
Private Debt Benchmark(5)		1.19%	3.82%	5.70%	13.61%	13.61%	6.29%	5.43%	5.22%
Excess Return		0.62%	-2.09%	-3.96%	-7.90%	-7.90%	-0.29%	0.44%	0.97%
Total Fund Composite	100.00%	-2.05%	-0.89%	3.85%	8.37%	8.37%	3.16%	7.41%	7.39%
Total Fund Benchmark(6)		-1.40%	-0.58%	4.57%	11.85%	11.85%	4.02%	7.57%	7.72%
Excess Return		-0.65%	-0.31%	-0.72%	-3.48%	-3.48%	-0.86%	-0.16%	-0.33%
1) The Domestic Equity Renchmark is the Duscell 2000 Index	oc of 7/1/2021	0.0070	0.0170	0.7 270	0.1070	0.1070	0.0070	0.1070	0.0070

(1) The Domestic Equity Benchmark is the Russell 3000 Index as of 7/1/2021.

(2) The Non US Equity Index is the MSCI ACWI ex US Index as of 7/1/2003. Prior to 7/1/2003 it was the MSCI EAFE Index.

(3) The Real Estate Benchmark is the NCREIF NFI-ODCE Value Weight Net Index lagged 1 quarter as of 7/1/2015.

(4) The Private Equity Benchmark is the Russell 3000 Index + 2% lagged 1 quarter as of 7/1/2022.

(5) The Private Debt Benchmark is (50% MStar LSTA Leveraged Loan 100 ldx + 50% Bloomberg High Yield Index) + 1% lagged 1 quarter as of 7/1/2022.

(6) Current Month Target = 30.0% Russell 3000 Index, 25.0% Bloomberg Universal, 20.0% MSCI ACWI ex-US, 10.0% NCREIF NFI-ODCE Value Weight Net lagged 3 months, 10.0% Russell 3000 Index lagged 3

months+2.0%, 2.5% Bloomberg High Yield Corp lagged 3 months+1.0% and 2.5% MStar LSTA Lev Loan 100 lagged 3 months +1.0%.

(7) For the trailing 25 year period ended 12/31/24, the Total Fund has returned 5.93% versus the Total Fund Custom Benchmark return of 6.41%.

\*Real Estate and Alternatives market values reflect current custodian valuations, which are typically lagged approximately 1 quarter.

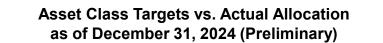
CYTD Calendar Year to Date

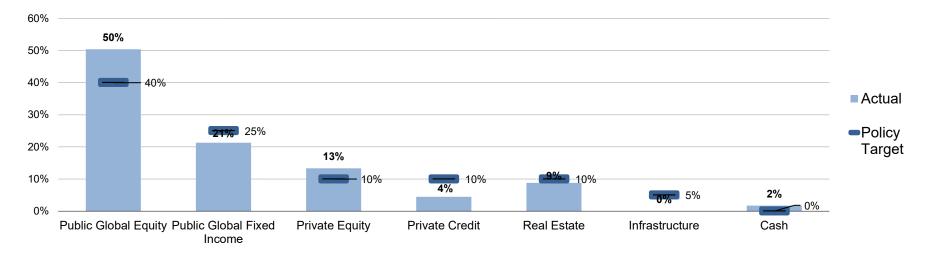
LTM Last Twelve Months

FYTD Fiscal Year to Date

# Asset Class Policy Targets vs. Actual Allocation





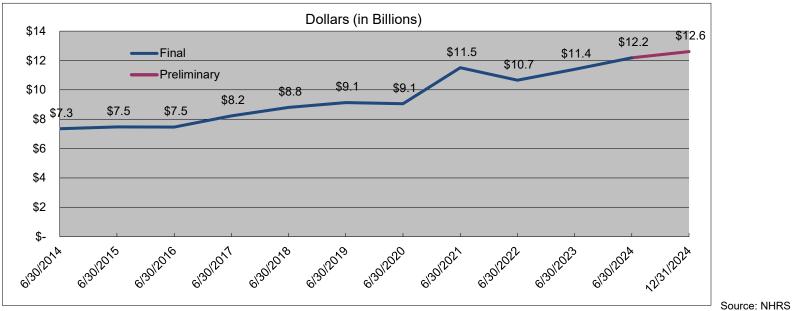


Asset Class	Policy Target	Actual	Range
Public Global Equity	40.0%	50.4%	30 - 50%
Public Global Fixed Income	25.0%	21.3%	18 - 32%
Private Equity	10.0%	13.3%	5 - 15%
Private Credit	10.0%	4.5%	0 - 15%
Real Estate	10.0%	8.8%	5 - 20%
Infrastructure	5.0%	0.0%	0 - 15%
Cash	0.0%	1.7%	0 - 5%
	100.0%		

# **Total Fund Market Value**



Fiscal Year	Dollars (in Billions)
June 30, 2014	\$7.3
June 30, 2015	\$7.5
June 30, 2016	\$7.5
June 30, 2017	\$8.2
June 30, 2018	\$8.8
June 30, 2019	\$9.1
June 30, 2020	\$9.1
June 30, 2021	\$11.5
June 30, 2022	\$10.7
June 30, 2023	\$11.4
June 30, 2024	\$12.2
December 31, 2024	\$12.6

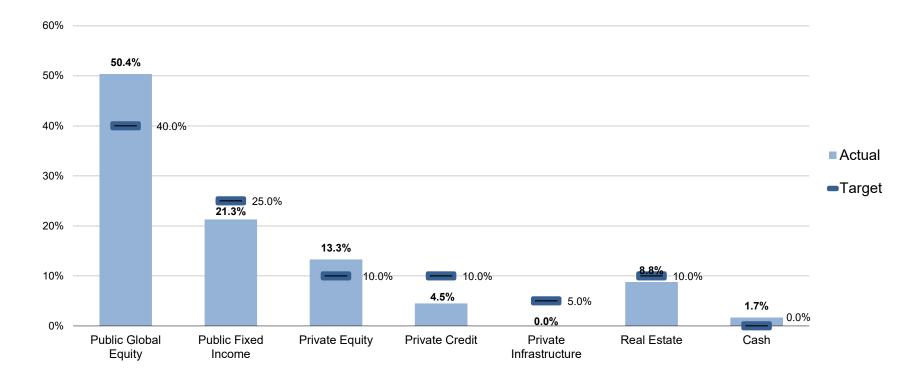


BoT Meeting – February 11, 2025

# **Current Status**



# Class Targets vs. Actual Allocation as of December 31, 2024 (Preliminary)



#### Source: NHRS

Note: private infrastructure and private credit allocations will be scaled up incrementally in subsequent periods to meet target allocations effective as of 7/1/2024.



		Alloca	ation			
Asset Class	Range <sup>1</sup>	Target	Actual	Variance	Objective	Comments
Public Markets						
Global Equity	30 - 50%	40.0%	50.4%	10.4%	Monitor	Actual allocation to be reduced over subsequent periods to fund new infrastructure allocation and increase to private credit.
Fixed Income	18 - 32%	25.0%	21.3%	-3.7%	Monitor	Portfolio was rebalanced on December 5, 2024, using funds drawn from Global Equity.
Private Markets						
Equity <sup>1</sup>	5 - 15%	10.0%	13.3%	3.3%	Monitor	No immediate action needed.
Credit <sup>1</sup>	0 - 15%	10.0%	4.5%	-5.5%	Action	To be scaled up incrementally over subsequent periods as part of SAA implementation.
Infrastructure	0 - 15%	5.0%	0.0%	-5.0%	Action	To be scaled up incrementally over subsequent periods as part of SAA implementation.
Real Estate (RE) <sup>3</sup>	5 - 20%	10.0%	8.8%	-1.2%	Monitor	No immediate action needed.
Cash Equivalents	0 - 5%	0.0%	1.7%	1.7%	No Action	Minimal cash balance to provide liquidity, as needed, for annuities, capital calls and other plan needs.
		100.0%	100.0%	0.0%		

As of December 31, 2024 (preliminary)

<sup>1</sup>As reported on the December 31, 2024 Callan Monthly Review.

# Callan

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December 31, 2024 New Hampshire Retirement System

Investment Measurement Service Monthly Review

#### **Asset Class Excess Returns**

The table below details the rates of return for the fund's asset classes over various time periods ended December 31, 2024. Negative manager excess returns are shown in red, positive excess returns in green. Returns for one year or greater are annualized.

	Net	of Fees Returi	ns for Periods En	ded Decen	nber 31, 202	4			
Composite	Total Fund Weighting As of 12/31/2024	Last Month	Last 3 Months	FYTD	CYTD	LTM	3-YR	5-YR	10-YR
Total Domestic Equity	31.83%	-4.39%	1.59%	8.89%	20.11%	20.11%	6.41%	12.13%	11.14%
Domestic Equity Benchmark(1)		-3.06%	2.63%	9.03%	23.81%	23.81%	8.01%	13.42%	12.63%
Excess Return		-1.33%	-1.04%	-0.13%	-3.70%	-3.70%	-1.59%	-1.29%	-1.50%
Total Non US Equity	18.58%	-2.92%	-5.92%	0.90%	6.73%	6.73%	1.55%	4.43%	5.44%
Non US Equity Benchmark(2)		-1.94%	-7.60%	-0.15%	5.53%	5.53%	0.82%	4.10%	4.80%
Excess Return		-0.97%	1.68%	1.04%	1.19%	1.19%	0.73%	0.32%	0.64%
Total Fixed Income	21.29%	-1.71%	-3.10%	2.14%	1.55%	1.55%	-1.48%	0.92%	2.11%
Bloomberg Capital Universe Bond Index		-1.51%	-2.73%	2.32%	2.04%	2.04%	-1.95%	0.06%	1.73%
Excess Return		-0.20%	-0.37%	-0.19%	-0.49%	-0.49%	0.47%	0.87%	0.38%
Total Cash	1.72%	0.40%	1.21%	2.54%	5.25%	5.25%	4.00%	2.52%	1.85%
3-Month Treasury Bill		0.40%	1.17%	2.55%	5.25%	5.25%	3.89%	2.46%	1.77%
Excess Return		0.00%	0.04%	-0.02%	0.00%	0.00%	0.11%	0.06%	0.09%
Total Real Estate (Q3)*	8.78%	0.03%	-0.18%	-0.01%	-5.40%	-5.40%	0.95%	5.63%	8.06%
Real Estate Benchmark(3)		0.01%	0.02%	-0.64%	-8.04%	-8.04%	-1.04%	2.05%	5.22%
Excess Return		0.03%	-0.20%	0.63%	2.64%	2.64%	1.99%	3.58%	2.84%
Total Private Equity (Q3)*	13.34%	1.49%	1.46%	1.50%	5.23%	5.23%	4.43%	12.88%	12.18%
Private Equity Benchmark(4)		2.20%	6.64%	10.62%	37.37%	37.37%	13.74%	18.55%	16.43%
Excess Return		-0.71%	-5.18%	-9.11%	-32.14%	-32.14%	-9.32%	-5.68%	-4.25%
Total Private Debt (Q3)*	4.46%	1.81%	1.73%	1.74%	5.71%	5.71%	6.00%	5.86%	6.18%
Private Debt Benchmark(5)		1.19%	3.82%	5.70%	13.61%	13.61%	6.29%	5.43%	5.22%
Excess Return		0.62%	-2.09%	-3.96%	-7.90%	-7.90%	-0.29%	0.44%	0.97%
Total Fund Composite	100.00%	-2.05%	-0.89%	3.85%	8.37%	8.37%	3.16%	7.41%	7.39%
Total Fund Benchmark(6)		-1.40%	-0.58%	4.57%	11.85%	11.85%	4.02%	7.57%	7.72%
Excess Return		-0.65%	-0.31%	-0.72%	-3.48%	-3.48%	-0.86%	-0.16%	-0.33%

(1) The Domestic Equity Benchmark is the Russell 3000 Index as of 7/1/2021.

(2) The Non US Equity Index is the MSCI ACWI ex US Index as of 7/1/2003. Prior to 7/1/2003 it was the MSCI EAFE Index.

(3) The Real Estate Benchmark is the NCREIF NFI-ODCE Value Weight Net Index lagged 1 quarter as of 7/1/2015.

(4) The Private Equity Benchmark is the Russell 3000 Index + 2% lagged 1 quarter as of 7/1/2022.

(5) The Private Debt Benchmark is (50% MStar LSTA Leveraged Loan 100 ldx + 50% Bloomberg High Yield Index) + 1% lagged 1 quarter as of 7/1/2022.

(6) Current Month Target = 30.0% Russell 3000 Index, 25.0% Bloomberg Universal, 20.0% MSCI ACWI ex-US, 10.0% NCREIF NFI-ODCE Value Weight Net lagged 3 months, 10.0% Russell 3000 Index lagged 3 months+2.0%, 2.5% Bloomberg High Yield Corp lagged 3 months+1.0% and 2.5% MStar LSTA Lev Loan 100 lagged 3 months +1.0%.

(7) For the trailing 25 year period ended 12/31/24, the Total Fund has returned 5.93% versus the Total Fund Custom Benchmark return of 6.41%.

\*Real Estate and Alternatives market values reflect current custodian valuations, which are typically lagged approximately 1 quarter.

#### **Domestic Equity Excess Returns**

The table below details the rates of return for the fund's investment managers over various time periods ended December 31, 2024. Negative manager excess returns are shown in red, positive excess returns in green. Returns for one year or greater are annualized.

Composite	Total Fund Weighting As of 12/31/2024	Last Month	Last 3 Months	FYTD	СҮТД	LTM	3-YR	5-YR	10-YR
Total Domestic Equity	31.83%	-4.39%	1.59%	8.89%	20.11%	20.11%	6.41%	12.13%	11.14%
Domestic Equity Benchmark(1)		-3.06%	2.63%	9.03%	23.81%	23.81%	8.01%	13.42%	12.63%
Excess Return		-1.33%	-1.04%	-0.13%	-3.70%	-3.70%	-1.59%	-1.29%	-1.50%
Large Cap Domestic Equity	19.07%	-2.38%	2.41%	8.43%	25.08%	25.08%	8.90%	13.74%	12.24%
S&P 500 Index		-2.38%	2.41%	8.44%	25.02%	25.02%	8.94%	14.53%	13.10%
Excess Return		0.00%	0.00%	-0.01%	0.06%	0.06%	-0.04%	-0.79%	-0.86%
BlackRock S&P 500	19.07%	-2.38%	2.41%	8.43%	25.08%	25.08%	8.90%	14.48%	13.07%
S&P 500 Index		-2.38%	2.41%	8.44%	25.02%	25.02%	8.94%	14.53%	13.10%
Excess Return		0.00%	0.00%	-0.01%	0.06%	0.06%	-0.04%	-0.05%	-0.03%
Smid Cap Domestic Equity	6.08%	-6.46%	0.40%	8.51%	11.90%	11.90%	1.81%	9.14%	8.47%
Russell 2500 Index		-7.54%	0.62%	9.42%	12.00%	12.00%	2.39%	8.77%	8.85%
Excess Return		1.08%	-0.23%	-0.92%	-0.10%	-0.10%	-0.58%	0.37%	-0.38%
AllianceBernstein	3.84%	-7.48%	0.25%	8.31%	13.20%	13.20%	0.31%	9.87%	9.50%
Russell 2500 Index		-7.54%	0.62%	9.42%	12.00%	12.00%	2.39%	8.77%	8.85%
Excess Return		0.06%	-0.37%	-1.11%	1.20%	1.20%	-2.08%	1.10%	0.65%
TSW	2.24%	-4.66%	0.65%	8.84%	9.73%	9.73%	4.62%	7.95%	6.92%
TSW Blended Benchmark (2)		-7.18%	-0.26%	9.34%	10.98%	10.98%	3.81%	8.44%	8.69%
Excess Return		2.52%	0.91%	-0.50%	-1.26%	-1.26%	0.81%	-0.49%	-1.77%
Small Cap Domestic Equity	6.68%	-7.83%	0.15%	9.91%	14.40%	14.40%	3.79%	10.58%	10.40%
Russell 2000 Index		-8.26%	0.33%	9.64%	11.54%	11.54%	1.24%	7.40%	7.82%
Excess Return		0.43%	-0.18%	0.27%	2.86%	2.86%	2.55%	3.18%	2.58%
Boston Trust	2.08%	-7.98%	0.47%	10.65%	12.69%	12.69%	4.45%	10.10%	10.45%
Russell 2000 Index		-8.26%	0.33%	9.64%	11.54%	11.54%	1.24%	7.40%	7.82%
Excess Return		0.27%	0.13%	1.02%	1.15%	1.15%	3.21%	2.69%	2.64%
Segall Bryant & Hamill	2.21%	-7.45%	-0.06%	6.41%	12.27%	12.27%	3.86%	11.24%	9.88%
Russell 2000 Index		-8.26%	0.33%	9.64%	11.54%	11.54%	1.24%	7.40%	7.82%
Excess Return		0.81%	-0.39%	-3.22%	0.73%	0.73%	2.62%	3.83%	2.06%
Wellington	2.39%	-8.03%	0.02%	11.52%	16.53%	16.53%	3.36%	10.46%	10.68%
Russell 2000 Index		-8.26%	0.33%	9.64%	11.54%	11.54%	1.24%	7.40%	7.82%
Excess Return		0.23%	-0.31%	1.88%	4.99%	4.99%	2.12%	3.06%	2.86%

(1) The Domestic Equity Benchmark is the Russell 3000 Index as of 7/1/2021.

(2) TSW Blended Benchmark is the Russell 2500 Value Index as of 7/1/2019. Prior to 7/1/2019 it was the Russell 2500.

#### **Non-US Equity Excess Returns**

The table below details the rates of return for the fund's investment managers over various time periods ended December 31, 2024. Negative manager excess returns are shown in red, positive excess returns in green. Returns for one year or greater are annualized.

		Net of F	ees Returns for Per	iods Ended De	cember 31, 2024				
Composite	Total Fund Weighting As of 12/31/2024	Last Month	Last 3 Months	FYTD	CYTD	LTM	3-YR	5-YR	10-YR
Fotal Non US Equity	18.58%	-2.92%	-5.92%	0.90%	6.73%	6.73%	1.55%	4.43%	5.44%
Non US Equity Benchmark (1)		-1.94%	-7.60%	-0.15%	5.53%	5.53%	0.82%	4.10%	4.80%
Excess Return		-0.97%	1.68%	1.04%	1.19%	1.19%	0.73%	0.32%	0.64%
Core Non US Equity	11.26%	-2.24%	-6.53%	0.86%	6.23%	6.23%	2.79%	4.56%	5.03%
Core Non US Benchmark (2)		-1.94%	-7.60%	-0.15%	5.53%	5.53%	0.82%	4.10%	4.80%
Excess Return		-0.30%	1.07%	1.01%	0.70%	0.70%	1.97%	0.45%	0.22%
Aristotle	1.46%	-2.85%	-6.79%	3.42%	6.25%	6.25%	-0.06%	-	-
MSCI EAFE	1.4070	-2.27%	-8.11%	-1.44%	3.82%	3.82%	1.65%		-
Excess Return		-0.58%	1.32%	4.86%	2.43%	2.43%	-1.70%	-	-
Articon Portnoro	2 2 2 0 /		-3.42%			11.15%		A 1 AQ/	E 110/
Artisan Partners MSCI EAFE	3.32%	-2.69%	-3.42%	<b>2.34%</b> -1.44%	<b>11.15%</b> 3.82%	3.82%	<b>1.43%</b> 1.65%	<b>4.14%</b> 4.73%	<b>5.11%</b>
Excess Return		-2.21%	-8.11%	-1.44% 3.78%	7.33%	7.33%	-0.21%	-0.59%	5.20% -0.08%
Excess Relum		-0.42 %	4.70%	3.70%	7.33%	1.33%	-0.2176	-0.59%	-0.00%
BlackRock SuperFund	1.58%	-2.12%	-7.67%	-0.34%	5.49%	5.49%	-	-	-
MSCI ACWI Ex-US		-1.94%	-7.60%	-0.15%	5.53%	5.53%	-	-	-
Excess Return		-0.17%	-0.07%	-0.19%	-0.04%	-0.04%	-	-	-
Causeway Capital	3.60%	-1.23%	-7.95%	0.64%	4.95%	4.95%	7.58%	7.72%	5.99%
MSCI EAFE		-2.27%	-8.11%	-1.44%	3.82%	3.82%	1.65%	4.73%	5.20%
Excess Return		1.04%	0.16%	2.08%	1.13%	1.13%	5.94%	3.00%	0.79%
Lazard	1.30%	-3.31%	-8.44%	-3.40%	-0.73%	-0.73%	-0.79%	-	-
MSCI EAFE		-2.27%	-8.11%	-1.44%	3.82%	3.82%	1.65%	-	-
Excess Return		-1.04%	-0.33%	-1.96%	-4.55%	-4.55%	-2.44%	-	-
Emerging Markets	1.44%	-2.51%	-9.11%	0.10%	6.68%	6.68%	-3.03%	-0.30%	2.28%
MSCIEM		-0.14%	-8.01%	0.02%	7.50%	7.50%	-1.92%	1.70%	3.64%
Excess Return		-2.38%	-1.10%	0.09%	-0.83%	-0.83%	-1.11%	-2.00%	-1.36%
Wellington Emerging Markets	1.44%	-2.51%	-9.11%	0.10%	6.68%	6.68%	-3.08%	-0.13%	2.97%
MSCI EM	1.4470	-0.14%	-8.01%	0.02%	7.50%	7.50%	-1.92%	1.70%	3.64%
Excess Return		-2.38%	-1.10%	0.09%	-0.83%	-0.83%	-1.16%	-1.83%	-0.67%
Non US Small Cap	1.09%	-3.18%	-9.15%	0.31%	1.19%	1.19%	-3.65%	-1.34%	1.09%
MSCI EAFE Small Cap	1.0370	-2.30%	-8.36%	1.30%	1.82%	1.82%	-3.25%	2.30%	5.52%
Excess Return		-0.88%	-0.79%	-0.99%	-0.63%	-0.63%	-0.40%	-3.64%	-4.44%
	4.00%		Î.						
Wellington Int'l Small Cap Research MSCI EAFE Small Cap	1.09%	-3.18% -2.30%	-9.15% -8.36%	<b>0.31%</b> 1.30%	<b>1.19%</b> 1.82%	<b>1.19%</b> 1.82%	-3.65% -3.25%	-	-
Excess Return		-2.30%	-0.79%	-0.99%	-0.63%	-0.63%	-3.25%	-	-
Global Equity	4.79%	-4.52%	-2.62%	1.37%	9.30%	9.30%	2.76%	9.01%	10.72%
MSCI ACWI net	_	-2.37%	-0.99%	5.56%	17.49%	17.49%	5.44%	10.06%	9.23%
Excess Return		-2.16%	-1.63%	-4.19%	-8.19%	-8.19%	-2.67%	-1.06%	1.49%
Walter Scott Global Equity	4.79%	-4.52%	-2.62%	1.37%	9.30%	9.30%	2.76%	9.01%	10.72%
Walter Scott Blended Benchmark (3)		-2.37%	-0.99%	5.56%	17.49%	17.49%	5.44%	10.06%	9.23%
Excess Return		-2.16%	-1.63%	-4.19%	-8.19%	-8.19%	-2.67%	-1.06%	1.49%

(1) The Non US Equity Index is the MSCI ACWI ex US Index as of 7/1/2003. Prior to 7/1/2003 it was the MSCI EAFE Index.

(2) The Core Non US Equity Index is the MSCI ACWI ex US as of 7/1/2007. Prior to 7/1/2007 it was the MSCI EAFE Index.

(3) The Walter Scott Blended Benchmark is the MSCI ACWI Index as 5/1/2008. Prior to 5/1/2008 it was the MSCI EAFE Index.

#### **Fixed Income Excess Returns**

The table below details the rates of return for the fund's investment managers over various time periods ended December 31, 2024. Negative manager excess returns are shown in red, positive excess returns in green. Returns for one year or greater are annualized.

	Ne	et of Fees Ret	urns for Periods	Ended Dece	mber 31, 2024				
Composite	Total Fund Weighting As of 12/31/2024	Last Month	Last 3 Months	FYTD	CYTD	LTM	3-YR	5-YR	10-YR
Total Fixed Income	21.29%	-1.71%	-3.10%	2.14%	1.55%	1.55%	-1.48%	0.92%	2.11%
Fixed Income Benchmark (1)		-1.51%	-2.73%	2.32%	2.04%	2.04%	-1.95%	0.06%	1.73%
Excess Return		-0.20%	-0.37%	-0.19%	-0.49%	-0.49%	0.47%	0.87%	0.38%
BlackRock SIO Bond Fund	2.22%	-0.37%	-0.85%	3.30%	4.80%	4.80%	1.83%	2.74%	-
BlackRock Custom Benchmark (2)		0.40%	1.20%	2.62%	5.41%	5.41%	4.07%	2.61%	-
Excess Return		-0.77%	-2.05%	0.68%	-0.61%	-0.61%	-2.24%	0.13%	-
Brandywine Asset Mgmt	1.73%	-4.79%	-9.79%	-1.95%	-9.11%	-9.11%	-6.25%	-2.60%	-0.05%
Brandywine Custom Benchmark (3)		-2.64%	-5.93%	0.84%	-3.58%	-3.58%	-6.07%	-3.22%	-0.63%
Excess Return		-2.15%	-3.85%	-2.79%	-5.53%	-5.53%	-0.18%	0.63%	0.58%
FIAM (Fidelity) Tactical Bond	3.05%	-2.01%	-3.06%	2.10%	1.94%	1.94%	-0.92%	1.49%	-
Bloomberg Aggregate		-1.64%	-3.06%	1.98%	1.25%	1.25%	-2.41%	-0.33%	-
Excess Return		-0.37%	0.01%	0.13%	0.69%	0.69%	1.49%	1.82%	-
Income Research & Management	6.36%	-1.66%	-2.87%	2.00%	1.75%	1.75%	-2.36%	0.27%	1.81%
Bloomberg Gov/Credit		-1.67%	-3.08%	1.87%	1.18%	1.18%	-2.59%	-0.21%	1.50%
Excess Return		0.01%	0.21%	0.14%	0.57%	0.57%	0.22%	0.48%	0.31%
Loomis Sayles	2.40%	-0.92%	-1.40%	4.18%	5.40%	5.40%	0.39%	3.11%	3.72%
Loomis Sayles Custom Benchmark (4)		-1.21%	-1.93%	3.19%	3.64%	3.64%	-0.54%	1.31%	2.72%
Excess Return		0.30%	0.54%	0.99%	1.76%	1.76%	0.93%	1.80%	1.00%
Manulife Strategic Fixed Income	1.76%	-0.93%	-1.95%	2.94%	3.20%	3.20%	0.03%	1.61%	-
Bloomberg Multiverse		-2.09%	-4.96%	1.66%	-1.34%	-1.34%	-4.22%	-1.77%	-
Excess Return		1.16%	3.02%	1.27%	4.54%	4.54%	4.25%	3.38%	-
Mellon US Agg Bond Index	3.77%	-1.70%	-3.13%	1.91%	1.19%	1.19%	-	-	-
Bloomberg Aggregate Bond Index		-1.64%	-3.06%	1.98%	1.25%	1.25%	-	-	-
Excess Return		-0.07%	-0.07%	-0.06%	-0.06%	-0.06%	-	-	-
otal Cash	1.72%	0.40%	1.21%	2.54%	5.25%	5.25%	4.00%	2.52%	1.85%
-month Treasury Bill		0.40%	1.17%	2.55%	5.25%	5.25%	3.89%	2.46%	1.77%
Excess Return		0.00%	0.04%	-0.02%	0.00%	0.00%	0.11%	0.06%	0.09%
otal Marketable Assets	73.43%	-3.14%	-1.55%	4.93%	11.18%	11.18%	2.92%	6.79%	6.89%
Total Marketable Index (5)		-2.24%	-1.91%	4.34%	11.40%	11.40%	2.90%	6.63%	7.07%
Excess Return		-0.89%	0.35%	0.58%	-0.22%	-0.22%	0.02%	0.16%	-0.18%

(1) The Fixed Income Benchmark is the Bloomberg Universal Bond Index as of 7/1/2007.

(2) The BlackRock Custom Benchmark is 3 Month SOFR compounded in arrears as of 1/1/2022.

(3) The Brandywine Blended Benchmark is the FTSE WGBI Ex-China Index as of 11/1/2021.

(4) The Loomis Sayles Custom Benchmark is 65% Bloomberg Aggregate and 35% Bloomberg High Yield.

(5) Marketable Assets Index is 40% Russell 3000, 26.7% MSCI ACWI ex US, and 33.3% Bloomberg Universal as of 7/1/2021.

#### **Alternatives Excess Returns**

The table below details the rates of return for the fund's investment managers over various time periods ended December 31, 2024. Negative manager excess returns are shown in red, positive excess returns in green. Returns for one year or greater are annualized.

Net of Fees Returns for Periods Ended December 31, 2024									
Composite	Total Fund Weighting As of 12/31/2024	Last Month	Last 3 Months	FYTD	CYTD	LTM	3-YR	5-YR	10-YR
Total Real Estate (Q3)* (5)	8.78%	0.03%	-0.18%	-0.01%	-5.40%	-5.40%	0.95%	5.63%	8.06%
Real Estate Benchmark (1)		0.01%	0.02%	-0.64%	-8.04%	-8.04%	-1.04%	2.05%	5.22%
Excess Return		0.03%	-0.20%	0.63%	2.64%	2.64%	1.99%	3.58%	2.84%
Strategic Core Real Estate (Q3)*	4.99%	0.09%	0.09%	0.11%	-8.18%	-8.18%	-0.21%	3.52%	6.74%
Real Estate Benchmark (1)		0.01%	0.02%	-0.64%	-8.04%	-8.04%	-1.04%	2.05%	5.22%
Excess Return		0.09%	0.07%	0.75%	-0.14%	-0.14%	0.83%	1.46%	1.52%
Tactical Non-Core Real Estate (Q3)*	3.80%	-0.04%	-0.54%	-0.16%	-1.00%	-1.00%	2.80%	9.32%	10.37%
Real Estate Benchmark (1)		0.01%	0.02%	-0.64%	-8.04%	-8.04%	-1.04%	2.05%	5.22%
Excess Return		-0.05%	-0.56%	0.48%	7.03%	7.03%	3.84%	7.26%	5.15%
Total Alternative Assets (Q3)*	17.79%	1.57%	1.53%	1.56%	5.35%	5.35%	4.82%	10.72%	9.30%
Alternative Assets Benchmark (2)		1.86%	5.69%	9.00%	29.11%	29.11%	11.41%	14.12%	11.70%
Excess Return		-0.29%	-4.16%	-7.43%	-23.76%	-23.76%	-6.59%	-3.39%	-2.41%
Total Private Equity (Q3)*	13.34%	1.49%	1.46%	1.50%	5.23%	5.23%	4.43%	12.88%	12.18%
Private Equity Benchmark (3)		2.20%	6.64%	10.62%	37.37%	37.37%	13.74%	18.55%	16.43%
Excess Return		-0.71%	-5.18%	-9.11%	-32.14%	-32.14%	-9.32%	-5.68%	-4.25%
Total Private Debt (Q3)*	4.46%	1.81%	1.73%	1.74%	5.71%	5.71%	6.00%	5.86%	6.18%
Private Debt Benchmark (4)		1.19%	3.82%	5.70%	13.61%	13.61%	6.29%	5.43%	5.22%
Excess Return		0.62%	-2.09%	-3.96%	-7.90%	-7.90%	-0.29%	0.44%	0.97%

(1) The Real Estate Benchmark is the NCREIF NFI-ODCE Value Weight Net Index lagged 1 quarter as of 7/1/2015.

(2) The Alternative Assets Benchmark is 66.7% Russell 3000 Index + 2% lagged 1 quarter and 33.3% ((50% S&P LSTA Leveraged Loan 100 Index + 50% Bloomberg High Yield Index) + 1%) lagged 1 quarter as of 7/1/2022.

(3) The Private Equity Benchmark is the Russell 3000 Index + 2% lagged 1 quarter as of 7/1/2022.

(4) The Private Debt Benchmark is (50% MStar LSTA Leveraged Loan 100 Index / 50% Bloomberg High Yield Index) + 1% lagged 1 quarter as of 7/1/2022.

(5) Total Real Estate returns includes Townsend discretionary fee as of 7/1/2022.

\*Real Estate and Alternatives market values reflect current custodian valuations, which are typically lagged approximately 1 quarter.

#### **Investment Manager Asset Allocation**

The table below contrasts the distribution of assets across the Fund's investment managers as of December 31, 2024, with the distribution as of November 30, 2024. The change in asset distribution is broken down into the dollar change due to Net New Investment and the dollar change due to Investment Return.

	December 31, 2024			November 3	November 30, 2024	
	Market Value	Weight	Net New Inv.	Inv. Return	Market Value	Weight
Total Domestic Equity	\$4,011,772,952	31.83%	\$(300,000,000)	\$(181,555,932)	\$4,493,328,885	34.93%
Large Cap Domestic Equity	\$2,403,099,778	19.07%	\$(100,000,000)	\$(57,749,583)	\$2,560,849,362	19.91%
Blackrock S&P 500	2,403,099,778	19.07%	(100,000,000)	(57,749,583)	2,560,849,362	19.91%
SMid Cap Domestic Equity	\$766,265,066	6.08%	\$0	\$(52,522,948)	\$818,788,014	6.36%
AllianceBernstein	484,319,368	3.84%	0	(38,889,388)	523,208,756	4.07%
TSW	281,945,698	2.24%	0	(13,633,560)	295,579,257	2.30%
Small Cap Domestic Equity	\$842,408,108	6.68%	\$(200,000,000)	\$(71,283,401)	\$1,113,691,509	8.66%
Boston Trust	262,663,157	2.08%	0	(22,700,699)	285,363,856	2.22%
Segall Bryant & Hamill	278,576,506	2.21%	0	(22,223,892)	300,800,398	2.34%
Wellington	301,168,445	2.39%	(200,000,000)	(26,358,810)	527,527,255	4.10%
Total Non US Equity	\$2,341,386,892	18.58%	\$0	\$(69,279,002)	\$2,410,665,894	18.74%
Core Non US Equity (1)	\$1,419,297,456	11.26%	\$0	\$(31,976,599)	\$1,451,274,055	11.28%
Aristotle	184,261,031	1.46%	0	(5,344,906)	189,605,937	1.47%
Artisan Partners	417,917,802	3.32%	Ő	(11,333,226)	429,251,028	3.34%
BlackRock Superfund	198,813,151	1.58%	Ő	(4,291,207)	203,104,358	1.58%
Causeway Capital	453,812,704	3.60%	Õ	(5,450,265)	459,262,969	3.57%
Lazard	164,004,481	1.30%	Õ	(5,547,235)	169,551,715	1.32%
Lazalu	104,004,401	1.30 %	0	(3,347,233)	109,551,715	1.32 %
Emerging Markets	\$180,917,946	1.44%	\$0	\$(4,506,042)	\$185,423,988	1.44%
Wellington Emerging Markets	180,917,946	1.44%	0	(4,506,042)	185,423,988	1.44%
Non US Small Cap	\$137,538,873	1.09%	\$0	\$(4,432,837)	\$141,971,710	1.10%
Wellington Int'l Small Cap Research	137,538,873	1.09%	0	(4,432,837)	141,971,710	1.10%
Global Equity	\$603,632,618	4.79%	\$0	\$(28,363,524)	\$631,996,142	4.91%
Walter Scott Global Equity	603,632,618	4.79%	0	(28,363,524)	631,996,142	4.91%
Total Fixed Income	\$2,683,675,107	21.29%	\$300,000,000	\$(46,548,493)	\$2,430,223,600	18.89%
BlackRock SIO Bond Fund	280,412,435	2.22%	0	(928,164)	281,340,599	2.19%
Brandywine Asset Mgmt	218,003,975	1.73%	0	(10,916,634)	228,920,609	1.78%
FIAM (Fidelity) Tactical Bond	383,928,220	3.05%	0	(7,768,783)	391,697,002	3.04%
Income Research & Management	801,047,806	6.36%	0	(13,377,597)	814,425,403	6.33%
Loomis Sayles	302,245,379	2.40%	0	(2,719,207)	304,964,586	2.37%
Manulife Strategic Fixed Income	222,406,981	1.76%	Õ	(2,043,556)	224,450,536	1.74%
Mellon US Agg Bond Index	475,630,310	3.77%	300,000,000	(8,794,553)	184,424,864	1.43%
Total Cash	\$217,258,340	1.72%	\$5,856,885	\$829,675	\$210,571,781	1.64%
Total Marketable Assets	\$9,254,093,292	73.43%	\$5,856,885	\$(296,553,753)	\$9,544,790,159	74.19%
				•• • • • •		
Total Real Estate	\$1,106,859,014	8.78%	\$(7,737,948)	\$2,610,935	\$1,111,986,028	8.64%
Strategic Core Real Estate	628,459,573	4.99%	(4,626,168)	843,946	632,241,795	4.91%
Tactical Non-Core Real Estate	478,399,440	3.80%	(2,251,926)	907,135	479,744,232	3.73%
Total Alternative Assets	\$2,242,319,233	17.79%	\$(7,538,139)	\$41,918,304	\$2,207,939,068	17.16%
Private Equity	1,680,665,885	13.34%	4,594,536	27,819,708	1,648,251,641	12.81%
Private Debt	561,653,348	4.46%	(12,132,675)	14,098,596	559,687,427	4.35%
Total Fund Composite	\$12,603,271,539	100.0%	\$(9,419,202)	\$(252,024,513)	\$12,864,715,255	100.0%

#### **Asset Distribution Across Investment Managers**

-Alternatives market values reflect current custodian valuations, which may not be up to date.

(1) Includes \$488,286 in legacy assets that are not actively managed and in liquidation following the termination of Fisher Investments.



30-Jun-2022 - 31-D	vec-2024	
Domestic Broad		
Eq	Russell 3000 Index	30.00%
Domestic Fixed	Bloomberg Universal	25.00%
Real Estate	NCREIF NFI-ODCE Value Weight Net	10.00%
Intl Equity	MSCI ACWI xUS (Net)	20.00%
Other Alternatives	Russell 3000 Index+2.00%	10.00%
Other Alternatives	Bloomberg HY Corporate+1.00%	2.50%
Other Alternatives	Morningstar LSTA Leveraged Loan 100+1	1.00%2.50%
		100.00%
30-Jun-2021 - 30-J	un-2022	
Domestic Broad		
Eq	Russell 3000 Index	30.00%
Domestic Fixed	Bloomberg Universal	25.00%
Real Estate	NCREIF NFI-ODCE Value Weight Net	10.00%
Intl Equity	MSCI ACWI xUS (Net)	20.00%
Other Alternatives	S&P 500 Index+3.00%	10.00%
Other Alternatives	Morningstar LSTA Leveraged Loan 100	5.00%
	<u> </u>	100.00%
		100.00%
30-Sep-2020 - 30-J	un-2021	
Domestic Broad		
Eq	S&P 500 Index	30.00%
Domestic Fixed	Bloomberg Universal	25.00%
Real Estate	NCREIF NFI-ODCE Value Weight Net	10.00%
Intl Equity	MSCI ACWI xUS (Net)	20.00%
Other Alternatives	S&P 500 Index+3.00%	10.00%
Other Alternatives	Morningstar LSTA Leveraged Loan 100	5.00%
		100.00%
30-Jun-2015 - 30-S	ep-2020	
Domestic Broad		
Eq	S&P 500 Index	30.00%
Domestic Fixed	Bloomberg Universal	25.00%
Real Estate	NCREIF NFI-ODCE Value Weight Net	10.00%
Intl Equity	MSCI ACWI xUS (Net)	20.00%
Other Alternatives	Alternative Asset Benchmark	15.00%
		100.00%
31-Mar-2015 - 30-J	un-2015	
Domestic Broad		
Eq	Russell 3000 Index	37.30%
Domestic Fixed	Bloomberg Universal	25.00%
Real Estate	NCREIF Property Index+0.50%	8.70%
Intl Equity	MSCI ACWI xUS (Net)	20.00%
Other Alternatives	S&P 500 Index+5.00%	9.00%
		100.00%
31-Dec-2014 - 31-N	Nar-2015	
Domestic Broad		_
Eq	Russell 3000 Index	37.70%
Domestic Fixed	Bloomberg Universal	25.00%
Real Estate	NCREIF Property Index+0.50%	8.80%
Intl Equity	MSCI ACWI xUS (Net)	20.00%
Other Alternatives	S&P 500 Index+5.00%	8.50%
		100.00%
20 Son 2014 24 F	000 2014	
30-Sep-2014 - 31-D	Jec-2014	
Domestic Broad	Russell 2000 Index	20.000/
Eq Domostic Fixed	Russell 3000 Index	39.00%
Domestic Fixed	Bloomberg Universal	25.00% 8.60%
Real Estate Intl Equity	NCREIF Property Index+0.50% MSCI ACWI xUS (Net)	
Other Alternatives	S&P 500 Index+5.00%	20.00% 7.40%
	Gui 000 IIIUEA 10.00 /0	
		100.00%

ep-2014	
Russell 3000 Index Bloomberg Universal NCREIF Property Index+0.50% MSCI ACWI xUS (Net) S&P 500 Index+5.00%	39.60% 25.00% 8.90% 20.00% 6.50%
	100.00%
0014	
Jn-2014	
Russell 3000 Index Bloomberg Universal NCREIF Property Index+0.50% MSCI ACWI xUS (Net) S&P 500 Index+5.00%	42.20% 25.00% 8.60% 20.00% 4.20% 100.00%
lor 2014	
ai <del>-2014</del>	
Russell 3000 Index Bloomberg Universal NCREIF Property Index+0.50% MSCI ACWI xUS (Net) S&P 500 Index+5.00%	41.80% 25.00% 9.10% 20.00% 4.10%
	100.00%
ec-2013	
Russell 3000 Index Bloomberg Universal NCREIF Property Index+0.50% MSCI ACWI xUS (Net) S&P 500 Index+5.00%	42.90% 25.00% 8.60% 20.00% 3.50%
	100.00%
ep-2013	
Russell 3000 Index Bloomberg Universal NCREIF Property Index+0.50% MSCI ACWI xUS (Net) S&P 500 Index+5.00%	42.50% 25.00% 9.00% 20.00% 3.50% 100.00%
un-2013	
Russell 3000 Index Bloomberg Universal NCREIF Property Index+0.50% MSCI ACWI xUS (Net) Alternative Asset Benchmark	43.00% 25.00% 8.60% 20.00% 3.40% 100.00%
lar-2013	
Russell 3000 Index Bloomberg Universal NCREIF Property Index+0.50% MSCI ACWI xUS (Net) Alternative Asset Benchmark	43.60% 25.00% 8.80% 20.00% 2.60% 100.00%
	Bloomberg Universal NCREIF Property Index+0.50% MSCI ACWI xUS (Net) S&P 500 Index+5.00% In-2014 Russell 3000 Index Bloomberg Universal NCREIF Property Index+0.50% MSCI ACWI xUS (Net) S&P 500 Index+5.00% Ar-2014 Russell 3000 Index Bloomberg Universal NCREIF Property Index+0.50% MSCI ACWI xUS (Net) S&P 500 Index+5.00% Bloomberg Universal NCREIF Property Index+0.50% MSCI ACWI xUS (Net) S&P 500 Index+5.00% CP-2013 Russell 3000 Index Bloomberg Universal NCREIF Property Index+0.50% MSCI ACWI xUS (Net) S&P 500 Index+5.00% Russell 3000 Index Bloomberg Universal NCREIF Property Index+0.50% MSCI ACWI xUS (Net) S&P 500 Index+5.00% Alternative Asset Benchmark Russell 3000 Index Bloomberg Universal NCREIF Property Index+0.50% MSCI ACWI xUS (Net) Alternative Asset Benchmark

Alternatives Benchmark represents from 7/1/2022 to present: 66.7% Russell 3000 ldx + 2% (1 qtr lag) and 33.3% ((50% S&P LSTA Leveraged Loan 100 ldx + 50% Bloomberg HY ldx) + 1%) (1 qtr lag). From 7/1/2019 to 7/1/2022: 66.7% S&P 500 +3% (1 qtr lag) + 33.3% S&P LSTA Leverage Loan 100 lndex (1 qtr lag). From 7/1/2016 to 7/1/2019: 33.3% S&P 500 +3% (1 qtr lag) + 33.3% S&P LSTA Leverage Loan 100 lndex (1 qtr lag) + 33.3% of Cash (6-mo USD LIBOR) + 5%. From 7/1/2015 to 7/1/2016: 33.3% S&P 500 +3% (1 qtr lag)

+ 33.3% S&P LSTA Leverage Loan 100 ldx(1 qtr lag) + 33.3% of Cash (1 month USD LIBID) +5%. From 7/1/2013 to 7/1/2015:

S&P 500 plus 5% (1 qtr lag). From 7/1/2011 to 7/1/2013: Qtr ending weight of Private Equity x S&P 500 plus 5%

+ Qtr ending weight Absolute Return x CPI + 5%. Prior to 7/1/2011: CPI + 5%.



30-Sep-2012 - 31-Dec-2012       Jomestic Broad       43.90%         Eq       Russell 3000 Index       43.90%         Domestic Fixed       Bioomberg Universal       25.00%         Real Estate       NCREIF Property Index+0.50%       8.70%         Other Alternatives       Alternative Asset Benchmark       2.40%         Obmestic Broad       24.0%       100.00%         Eq       Russell 3000 Index       43.50%         Domestic Broad       25.00%       9.00%         Real Estate       NCREIF Property Index+0.50%       9.00%         Intt Equity       MSCI ACWI XUS (Net)       20.00%         Other Alternatives       Alternative Asset Benchmark       2.50%         100.00%       31-Mar-2012       00mestic Fixed       Bloomberg Universal       30.00%         Domestic Broad       Eq       Russell 3000 Index       40.10%       20.00%         Other Alternatives       Alternative Asset Benchmark       2.30%       100.00%         31-Dec-2011 - 31-Mar-2012       20.00%       20.00%       20.00%         Domestic Broad       Eq       Reg       S0.00%       Real Estate       NCREIF Property Index+0.50%       7.60%         Real Estate       NCREIF Property Index+0.50%       8.00%       8.00%	20 Can 2042 - 24 E			
Eq     Russell 3000 Index     43.90%, 25.00%, MCREIF Property Index+0.50%, MSCI ACWI xUS (Net)     20.00%,		Jec-2012		
Domestic Fixed Real Estate Intl Equity Other Alternatives         Bioomberg Universal NCREIF Property Index+0.50% Atternative Asset Benchmark         25.00% 8.70% 20.00%           30-Jun-2012 - 30-Sep-2012         100.00%           Domestic Broad Eq         Russell 3000 Index Bioomberg Universal NCREIF Property Index+0.50% Other Alternatives         43.50% 9.00% 100.00%           30-Jun-2012 - 30-Jun-2012         20.00% 0.00%         9.00% 9.00%           Domestic Broad Eq         Russell 3000 Index Bioomberg Universal 0.00%         40.10% 9.00%           31-Mar-2012 - 30-Jun-2012         000%           Domestic Broad Eq         Russell 3000 Index NCREIF Property Index+0.50% 7.60%         40.10% 7.60%           Domestic Broad Eq         Russell 3000 Index NCREIF Property Index+0.50% 7.60%         40.10% 7.60%           Domestic Fixed Bioomberg Universal NCREIF Property Index+0.50% 8.00%         30.00%           101 Could		Russell 3000 Index	43 90%	
Real Estate Intl Equity         NCREIF Property Index+0.50% MSCI ACWI xUS (Net)         8.70% 20.00%           30-Jun-2012 - 30-Sep-2012         100.00%           30-Jun-2012 - 30-Sep-2012         100.00%           Comestic Broad Eq         Russell 3000 Index         43.50% 9.00%           Pomestic Fixed Neal Estate         Russell 3000 Index         43.50% 9.00%           Intl Equity         MSCI ACWI xUS (Net)         20.00%           Other Alternatives         Alternative Asset Benchmark         2.50%           Intl Equity         MSCI ACWI xUS (Net)         20.00%           Other Alternatives         Alternative Asset Benchmark         2.50%           Domestic Fixed         Bloomberg Universal         30.00%           Real Estate         NCREIF Property Index+0.50% Intl Equity         7.60%           Other Alternatives         Alternative Asset Benchmark         2.30%           000.00%         31-Dec-2011         20.00%           Domestic Broad Eq         Russell 3000 Index         39.70%           Domestic Fixed         Bloomberg Universal         30.00%           Real Estate         NCREIF Property Index+0.50%         8.00%           Other Alternatives         Alternative Asset Benchmark         2.30%           Obmestic Fixed         Bloomberg Universal				
Other Alternatives         Alternative Asset Benchmark         2.40%           100.00%         30-Jun-2012 - 30-Sep-2012         100.00%           Domestic Broad         Eq         Russell 3000 Index         43.50%           Domestic Fixed         Bioomberg Universal         25.00%           Real Estate         NCREIF Property Index+0.50%         9.00%           Other Alternatives         Alternative Asset Benchmark         2.50%           Other Alternatives         Alternative Asset Benchmark         2.50%           Obmestic Fixed         Bioomberg Universal         30.00%           Real Estate         NCREIF Property Index+0.50%         7.60%           Intl Equity         MSCI ACWI xUS (Net)         20.00%           Other Alternatives         Alternative Asset Benchmark         2.30%           100.00%         31-Dec-2011 - 31-Mar-2012         100.00%           Domestic Broad         2.30%         100.00%           Eq         Russell 3000 Index         39.70%           Domestic Broad         100.00%         8.00%           Intl Equity         MSCI ACWI xUS (Net)         20.00%           Other Alternatives         Alternative Asset Benchmark         2.30%           000.00%         30.00%         8.00%	Real Estate	NCREIF Property Index+0.50%	8.70%	
100.00%       30-Jun-2012 - 30-Sep-2012       Domestic Broad     43.50%       Eq     Russell 3000 Index     43.50%       Domestic Fixed     Bloomberg Universal     25.00%       Real Estate     NCREIF Property Index+0.50%     9.00%       Intl Equity     MSCI ACWI xUS (Net)     20.00%       Other Alternatives     Alternative Asset Benchmark     2.50%       100.00%       31-Mar-2012       Domestic Broad     Bloomberg Universal     30.00%       Real Estate     NCREIF Property Index+0.50%     7.60%       Other Alternatives     Alternative Asset Benchmark     2.30%       100.00%       31-Dec-2011 - 31-Mar-2012       Domestic Broad       Eq     Russell 3000 Index     39.70%       Domestic Broad     Bloomberg Universal     30.00%       Real Estate     NCREIF Property Index+0.50%     8.00%       Intl Equity     MSCI ACWI xUS (Net)     20.00%       Other Alternatives     Alternative Asset Benchmark     2.30%       100.00%       30.00%       NCREIF Property Index+0.50%       Colspan= 2000 Index       Alternative Asset Benchmark       2.30%				
30-Jun-2012 - 30-Sep-2012           Domestic Broad           Eq         Russell 3000 Index         43.50%           Domestic Fixed         Bloomberg Universal         25.00%           Real Estate         NCREIF Property Index+0.50%         9.00%           Intl Equity         MSCI ACVI xUS (Net)         20.00%           Other Alternatives         Alternative Asset Benchmark         2.50% <b>31-Mar-2012 - 30-Jun-2012</b> 100.00%           Domestic Broad         8000 Index         40.10%           Eq         Russell 3000 Index         40.10%           Domestic Fixed         Bloomberg Universal         30.00%           Real Estate         NCREIF Property Index+0.50%         7.60%           Intl Equity         MSCI ACVI xUS (Net)         20.00%           Other Alternatives         Alternative Asset Benchmark         2.30% <b>31-Dec-2011 - 31-Mar-2012</b> 2000%         30.00%           Domestic Broad         8.00%         8.00%           Eq         Russell 3000 Index         30.00%           Real Estate         NCREIF Property Index+0.50%         8.00%           Intl Equity         MSCI ACVI xUS (Net)         20.00%           Other Alternatives         Alternative Asset Benchmark	Other Alternatives	Alternative Asset Benchmark		
Domestic Broad         43.50%           Eq         Russell 3000 Index         43.50%           Domestic Fixed         Bloomberg Universal         25.00%           Real Estate         NCREIF Property Index+0.50%         9.00%           Intl Equity         MSCI ACWI xUS (Net)         20.00%           Other Alternatives         Alternative Asset Benchmark         2.50% <b>31-Mar-2012 - 30-Jun-2012</b> 100.00%           Domestic Broad         40.10%           Eq         Russell 3000 Index         40.10%           Domestic Fixed         Bloomberg Universal         30.00%           Real Estate         NCREIF Property Index+0.50%         7.60%           Other Alternatives         Alternative Asset Benchmark         2.30% <b>31-Dec-2011 - 31-Mar-2012</b> 20.00%         100.00%           Domestic Broad         8         39.70%           Domestic Fixed         Bloomberg Universal         30.00%           Real Estate         NCREIF Property Index+0.50%         8.00%           Intl Equity         MSCI ACVI XUS (Net)         20.00%           Other Alternatives         Alternative Asset Benchmark         2.30%           Obmestic Fixed         Bloomberg Universal         30.00%			100.00%	
Eq         Russell 3000 Index         43.50%           Domestic Fixed         Bloomberg Universal         25.00%           Real Estate         NCREIF Property Index+0.50%         9.00%           Other Alternatives         Alternative Asset Benchmark         2.50%           100.00%         31-Mar-2012 - 30-Jun-2012         100.00%           Domestic Broad         Eq         Russell 3000 Index         40.10%           Domestic Fixed         Bloomberg Universal         30.00%         7.66%           Intl Equity         MSCI ACWI XUS (Net)         20.00%         7.66%           Intl Equity         MSCI ACWI XUS (Net)         20.00%         7.66%           Intl Equity         MSCI ACWI XUS (Net)         20.00%         7.66%           Other Alternatives         Alternative Asset Benchmark         2.30%         100.00%           31-Dec-2011 - 31-Mar-2012         000%         30.00%         100.00%         30.00%           Domestic Fixed         Bloomberg Universal         30.00%         30.00%         30.00%           Intl Equity         MSCI ACWI XUS (Net)         20.00%         30.00%         30.00%           Other Alternatives         Alternative Asset Benchmark         2.30%         100.00%         30.00%         30.00%	30-Jun-2012 - 30-S	ep-2012		
Domestic Fixed         Bloomberg Universal         25.00%           Real Estate         NCREIF Property Index+0.50%         9.00%           Other Alternatives         Alternative Asset Benchmark         2.50%           Other Alternatives         Alternative Asset Benchmark         2.50%           Standard         100.00%         100.00%           Alternatives         Alternative Asset Benchmark         2.50%           Domestic Broad         80.001 Index         40.10%           Domestic Fixed         Bloomberg Universal         30.00%           Real Estate         NCREIF Property Index+0.50%         7.60%           Intl Equity         MSCI ACWI XUS (Net)         20.00%           Other Alternatives         Alternative Asset Benchmark         2.30%           Intl Equity         MSCI ACWI XUS (Net)         20.00%           Obmestic Broad         20.00%         8.00%           Fad         NCREIF Property Index+0.50%         8.00%           Intl Equity         MSCI ACWI XUS (Net)         20.00%           Other Alternatives         Alternative Asset Benchmark         2.30%           Int Equity         MSCI ACWI XUS (Net)         20.00%           Obmestic Fixed         Bloomberg Universal         30.00%           Real	Domestic Broad			
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100.00%         31-Dec-2011 - 31-Mar-2012         Domestic Broad       g       Russell 3000 Index       39.70%         Domestic Fixed       Bloomberg Universal       30.00%         Real Estate       NCREIF Property Index+0.50%       8.00%         Intl Equity       MSCI ACWI xUS (Net)       20.00%         Other Alternatives       Alternative Asset Benchmark       2.30%         000% <td colsp<="" td=""><td></td><td>MSCI ACWI XUS (Net) Alternative Asset Benchmark</td><td></td></td>	<td></td> <td>MSCI ACWI XUS (Net) Alternative Asset Benchmark</td> <td></td>		MSCI ACWI XUS (Net) Alternative Asset Benchmark	
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Intl Equity       MSCI ACWI xUS (Net)       20.00%         Other Alternatives       Alternative Asset Benchmark       2.30%         100.00%         30-Sep-2011 - 31-Dec-2011         Domestic Broad       40.20%         Eq       Russell 3000 Index       40.20%         Domestic Fixed       Bloomberg Universal       30.00%         Real Estate       NCREIF Property Index+0.50%       7.40%         Intl Equity       MSCI ACWI xUS (Net)       20.00%         Other Alternatives       Alternative Asset Benchmark       2.40%         00%         00%         0%         0%         00%         0%         0%         0%         0%         0%         0%         0%         0%         0%         0%         0%         0%         0%         0%         0%         0%         0% <tr< td=""><td></td><td></td><td></td></tr<>				
100.00%         30-Sep-2011 - 31-Dec-2011         Domestic Broad       Eq       Russell 3000 Index       40.20%         Domestic Fixed       Bloomberg Universal       30.00%         Real Estate       NCREIF Property Index+0.50%       7.40%         Intl Equity       MSCI ACWI xUS (Net)       20.00%         Other Alternatives       Alternative Asset Benchmark       2.40%         100.00%         30-Jun-2011 - 30-Sep-2011         Domestic Fixed       Bloomberg Universal       30.00%         Real Estate       NCREIF Property Index+0.50%       5.40%         Intl Equity       MSCI ACWI xUS (Net)       20.00%         Other Alternatives       Alternative Asset Benchmark       2.10%         100.00%         31-Mar-2011 - 30-Jun-2011         Domestic Broad         Eq       Russell 3000 Index       43.00%         0.00%         Other Alternatives         Microadeleaste         Eq       Russell 3000 Index       43.00%         Domestic Fixed       Bloomberg Universal       30.00%         Other Alternatives         Bloomberg Universal       30.00%	Intl Equity	MSCI ACWI xUS (Net)	20.00%	
30-Sep-2011 - 31-Dec-2011         Domestic Broad       Eq       Russell 3000 Index       40.20%         Domestic Fixed       Bloomberg Universal       30.00%         Real Estate       NCREIF Property Index+0.50%       7.40%         Intl Equity       MSCI ACWI xUS (Net)       20.00%         Other Alternatives       Alternative Asset Benchmark       2.40%         0000%         30-Jun-2011 - 30-Sep-2011         Domestic Broad       42.50%         Eq       Russell 3000 Index       42.50%         Domestic Fixed       Bloomberg Universal       30.00%         Real Estate       NCREIF Property Index+0.50%       5.40%         Intl Equity       MSCI ACWI xUS (Net)       20.00%         Other Alternatives       Alternative Asset Benchmark       2.10%         100.00%         State         NCREIF Property Index+0.50%       5.40%         Domestic Fixed       Bloomberg Universal       30.00%         100.00%         State       NCREIF Property Index+0.50%       5.30%         Int Equity       MSCI ACWI xUS (Net)       15.00%       5.30%         Int Equity       MSCI ACWI xUS (Net) <td< td=""><td>Other Alternatives</td><td>Alternative Asset Benchmark</td><td></td></td<>	Other Alternatives	Alternative Asset Benchmark		
Domestic Broad       Eq       Russell 3000 Index       40.20%         Domestic Fixed       Bloomberg Universal       30.00%         Real Estate       NCREIF Property Index+0.50%       7.40%         Intl Equity       MSCI ACWI xUS (Net)       20.00%         Other Alternatives       Alternative Asset Benchmark       2.40%         100.00%         30-Jun-2011 - 30-Sep-2011         Domestic Broad       42.50%         Eq       Russell 3000 Index       42.50%         Domestic Fixed       Bloomberg Universal       30.00%         Real Estate       NCREIF Property Index+0.50%       5.40%         Intl Equity       MSCI ACWI xUS (Net)       20.00%         Other Alternatives       Alternative Asset Benchmark       2.10%         Other Alternatives         Boomberg Universal       30.00%         Real Estate       NCREIF Property Index+0.50%       5.40%         Other Alternatives       Alternative Asset Benchmark       2.10%         Other Alternatives         Bloomberg Universal       30.00%         Real Estate       NCREIF Property Index+0.50%       5.30%         Intl Equity       MSCI ACWI xUS (Net)       15.00%         Other Alt			100.00%	
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Intl Equity       MSCI ACWI xUS (Net)       20.00%         Other Alternatives       Alternative Asset Benchmark       2.40%         100.00%         30-Jun-2011 - 30-Sep-2011         Domestic Broad         Eq       Russell 3000 Index       42.50%         Domestic Fixed       Bloomberg Universal       30.00%         Real Estate       NCREIF Property Index+0.50%       5.40%         Intl Equity       MSCI ACWI xUS (Net)       20.00%         Other Alternatives       Alternative Asset Benchmark       2.10%         31-Mar-2011 - 30-Jun-2011         Domestic Fixed         Bloomberg Universal       30.00%         Real Estate       NCREIF Property Index+0.50%       5.30%         Intl Equity       MSCI ACWI xUS (Net)       15.00%         Other Alternatives       Alternative Asset Benchmark       1.70%         Global Equity       MSCI ACWI (Net)       5.00%				
Other Alternatives       Alternative Asset Benchmark       2.40%         100.00%         30-Jun-2011 - 30-Sep-2011         Domestic Broad       g       Russell 3000 Index       42.50%         Domestic Fixed       Bloomberg Universal       30.00%         Real Estate       NCREIF Property Index+0.50%       5.40%         Intl Equity       MSCI ACWI xUS (Net)       20.00%         Other Alternatives       Alternative Asset Benchmark       2.10%         100.00%         31-Mar-2011 - 30-Jun-2011         Domestic Fixed       Bloomberg Universal       30.00%         Real Estate       NCREIF Property Index+0.50%       5.30%         Intl Equity       MSCI ACWI xUS (Net)       15.00%         Other Alternatives       Alternative Asset Benchmark       1.70%         Global Equity       MSCI ACWI (Net)       5.00%				
30-Jun-2011 - 30-Sep-2011         Domestic Broad       Eq       Russell 3000 Index       42.50%         Domestic Fixed       Bloomberg Universal       30.00%         Real Estate       NCREIF Property Index+0.50%       5.40%         Intl Equity       MSCI ACWI xUS (Net)       20.00%         Other Alternatives       Alternative Asset Benchmark       2.10%         31-Mar-2011 - 30-Jun-2011         Domestic Broad         Eq       Russell 3000 Index       43.00%         Domestic Fixed       Bloomberg Universal       30.00%         Real Estate       NCREIF Property Index+0.50%       5.30%         Intl Equity       MSCI ACWI xUS (Net)       15.00%         Other Alternatives       Alternative Asset Benchmark       1.70%         Global Equity       MSCI ACWI (Net)       5.00%				
Domestic Broad       Eq       Russell 3000 Index       42.50%         Domestic Fixed       Bloomberg Universal       30.00%         Real Estate       NCREIF Property Index+0.50%       5.40%         Intl Equity       MSCI ACWI xUS (Net)       20.00%         Other Alternatives       Alternative Asset Benchmark       2.10%         100.00% <b>31-Mar-2011 - 30-Jun-2011</b> Domestic Broad         Eq       Russell 3000 Index       43.00%         Domestic Fixed       Bloomberg Universal       30.00%         Real Estate       NCREIF Property Index+0.50%       5.30%         Intl Equity       MSCI ACWI xUS (Net)       15.00%         Other Alternatives       Alternative Asset Benchmark       1.70%         Global Equity       MSCI ACWI (Net)       5.00%			100.00%	
Domestic Broad       Eq       Russell 3000 Index       42.50%         Domestic Fixed       Bloomberg Universal       30.00%         Real Estate       NCREIF Property Index+0.50%       5.40%         Intl Equity       MSCI ACWI xUS (Net)       20.00%         Other Alternatives       Alternative Asset Benchmark       2.10%         100.00%         31-Mar-2011 - 30-Jun-2011         Domestic Broad         Eq       Russell 3000 Index       43.00%         Domestic Fixed       Bloomberg Universal       30.00%         Real Estate       NCREIF Property Index+0.50%       5.30%         Intl Equity       MSCI ACWI xUS (Net)       15.00%         Other Alternatives       Alternative Asset Benchmark       1.70%         Global Equity       MSCI ACWI (Net)       5.00%	30 Jun 2011 20 C	op 2011		
EqRussell 3000 Index42.50%Domestic FixedBloomberg Universal30.00%Real EstateNCREIF Property Index+0.50%5.40%Intl EquityMSCI ACWI xUS (Net)20.00%Other AlternativesAlternative Asset Benchmark2.10%100.00%31-Mar-2011 - 30-Jun-2011Domestic BroadEqRussell 3000 Index43.00%Domestic FixedBloomberg Universal30.00%Real EstateNCREIF Property Index+0.50%5.30%Intl EquityMSCI ACWI xUS (Net)15.00%Other AlternativesAlternative Asset Benchmark1.70%Global EquityMSCI ACWI (Net)5.00%		ep-2011		
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Intl Equity       MSCI ACWI xUS (Net)       20.00%         Other Alternatives       Alternative Asset Benchmark       2.10%         100.00% <b>31-Mar-2011 - 30-Jun-2011</b> Domestic Broad         Eq       Russell 3000 Index       43.00%         Domestic Fixed       Bloomberg Universal       30.00%         Real Estate       NCREIF Property Index+0.50%       5.30%         Intl Equity       MSCI ACWI xUS (Net)       15.00%         Other Alternatives       Alternative Asset Benchmark       1.70%         Global Equity       MSCI ACWI (Net)       5.00%				
Other Alternatives       Alternative Asset Benchmark       2.10%         100.00%         31-Mar-2011 - 30-Jun-2011         Domestic Broad         Eq       Russell 3000 Index       43.00%         Domestic Fixed       Bloomberg Universal       30.00%         Real Estate       NCREIF Property Index+0.50%       5.30%         Intl Equity       MSCI ACWI xUS (Net)       15.00%         Other Alternatives       Alternative Asset Benchmark       1.70%         Global Equity       MSCI ACWI (Net)       5.00%		NCREIF Property Index+0.50%		
100.00%         31-Mar-2011         Domestic Broad         Eq       Russell 3000 Index       43.00%         Domestic Fixed       Bloomberg Universal       30.00%         Real Estate       NCREIF Property Index+0.50%       5.30%         Intl Equity       MSCI ACWI xUS (Net)       15.00%         Other Alternatives       Alternative Asset Benchmark       1.70%         Global Equity       MSCI ACWI (Net)       5.00%				
31-Mar-2011 - 30-Jun-2011Domestic BroadEqRussell 3000 IndexDomestic FixedBloomberg UniversalDomestic FixedNCREIF Property Index+0.50%Intl EquityMSCI ACWI xUS (Net)Other AlternativesAlternative Asset BenchmarkGlobal EquityMSCI ACWI (Net)BroadMSCI ACWI (Net)		Alternative Asset Benchmark		
Domestic Broad       Eq       Russell 3000 Index       43.00%         Domestic Fixed       Bloomberg Universal       30.00%         Real Estate       NCREIF Property Index+0.50%       5.30%         Intl Equity       MSCI ACWI xUS (Net)       15.00%         Other Alternatives       Alternative Asset Benchmark       1.70%         Broad       MSCI ACWI (Net)       5.00%			100.00%	
EqRussell 3000 Index43.00%Domestic FixedBloomberg Universal30.00%Real EstateNCREIF Property Index+0.50%5.30%Intl EquityMSCI ACWI xUS (Net)15.00%Other AlternativesAlternative Asset Benchmark1.70%BroadMSCI ACWI (Net)5.00%	31-Mar-2011 - 30-J	un-2011		
Domestic Fixed         Bloomberg Universal         30.00%           Real Estate         NCREIF Property Index+0.50%         5.30%           Intl Equity         MSCI ACWI xUS (Net)         15.00%           Other Alternatives         Alternative Asset Benchmark         1.70%           Broad         MSCI ACWI (Net)         5.00%				
Real Estate     NCREIF Property Index+0.50%     5.30%       Intl Equity     MSCI ACWI xUS (Net)     15.00%       Other Alternatives     Alternative Asset Benchmark     1.70%       Global Equity     MSCI ACWI (Net)     5.00%				
Intl Equity         MSCI ACWI xUS (Net)         15.00%           Other Alternatives         Alternative Asset Benchmark         1.70%           Global Equity         MSCI ACWI (Net)         5.00%				
Other Alternatives         Alternative Asset Benchmark         1.70%           Global Equity         MSCI ACWI (Net)         5.00%				
Broad MSCI ACWI (Net) 5.00%	Other Alternatives			
			F 000/	
100.00%	סנטמ			
			100.00%	

#### 31-Dec-2010 - 31-Mar-2011 **Domestic Broad** Russell 3000 Index 43.00% Eα **Bloomberg Universal** 30.00% Domestic Fixed Real Estate NCREIF Property Index+0.50% 5.20% MSCI ACWI xUS (Net) 15.00% Intl Equity Other Alternatives Alternative Asset Benchmark 1.80% Global Equity MSCI ACWI (Net) 5.00% Broad 100.00% 30-Sep-2010 - 31-Dec-2010 **Domestic Broad** Russell 3000 Index Eα 42.80% Domestic Fixed **Bloomberg Universal** 30.00% Real Estate NCREIF Property Index+0.50% 5.40% Intl Equity MSCI ACWI xUS (Net) 15.00% Other Alternatives Alternative Asset Benchmark 1.80% Global Equity MSCI ACWI (Net) 5.00% Broad 100.00% 30-Jun-2010 - 30-Sep-2010 Domestic Broad Russell 3000 Index 42.90% Eq Bloomberg Universal NCREIF Property Index+0.50% **Domestic Fixed** 30.00% Real Estate 5.00% Intl Equity MSCI ACWI xUS (Net) 15 00% Alternative Asset Benchmark Other Alternatives 2.10% Global Equity MSCI ACWI (Net) 5.00% Broad 100.00% 31-Dec-2009 - 30-Jun-2010 Domestic Broad Russell 3000 Index Eq 43.30% Domestic Fixed **Bloomberg Universal** 30.00% NCREIF Property Index+0.50% Real Estate 4.70% Intl Equity MSCI ACWI xUS (Net) 15 00% Other Alternatives Alternative Asset Benchmark 2.00% **Global Equity** 5.00% MSCI ACWI (Net) Broad 100.00% 30-Sep-2009 - 31-Dec-2009 Domestic Broad Russell 3000 Index 42.30% Eq Domestic Fixed **Bloomberg Universal** 30.00% Real Estate NCREIF Property Index+0.50% 5.50% Intl Equity MSCI ACWI xUS (Net) 15.00% Other Alternatives Alternative Asset Benchmark 2.20% **Global Equity** Broad MSCI ACWI (Net) 5.00% 100.00% 30-Jun-2009 - 30-Sep-2009 Domestic Broad Russell 3000 Index Eq 41.50% Domestic Fixed Bloomberg Universal 30.00% Real Estate NCREIF Property Index+0.50% 6.20% MSCI ACWI xUS (Net) 15.00% Intl Equity Other Alternatives Alternative Asset Benchmark 2.30% Global Equity MSCI ACWI (Net) 5.00% Broad 100.00%

Alternatives Benchmark represents from 7/1/2022 to present: 66.7% Russell 3000 ldx + 2% (1 qtr lag) and 33.3% ((50% S&P LSTA Leveraged Loan 100 ldx + 50% Bloomberg HY ldx) + 1%) (1 qtr lag).

From 7/1/2019 to 7/1/2022: 66.7% S&P 500 +3% (1 qtr lag) + 33.3% S&P LSTA Leverage Loan

100 Index (1 qtr lag). From 7/1/2016 to 7/1/2019: 33.3% S&P 500 +3% (1 qtr lag) + 33.3% S&P LSTA Leverage Loan 100 Index

(1 qtr lag) + 33.3% of Cash (6-mo USD LIBOR) + 5%. From 7/1/2015 to 7/1/2016: 33.3% S&P 500 +3% (1qtr lag)

+ 33.3% S&P LSTA Leverage Loan 100 ldx(1 qtr lag) + 33.3% of Cash (1 month USD LIBID) +5%. From 7/1/2013 to 7/1/2015:

S&P 500 plus 5% (1 qtr lag). From 7/1/2011 to 7/1/2013: Qtr ending weight of Private Equity x S&P 500 plus 5%

+ Qtr ending weight Absolute Return x CPI + 5%. Prior to 7/1/2011: CPI + 5%.



#### New Hampshire Retirement System Target History

31-Mar-2009 - 30-J	un-2009	
Domestic Broad Eq Domestic Fixed Real Estate	Russell 3000 Index Bloomberg Universal NCREIF Property Index+0.50%	38.00% 30.00% 9.30%
Intl Equity Other Alternatives Global Equity	MSCI ACWI xUS (Net) Alternative Asset Benchmark	15.00% 2.70%
Broad	MSCI ACWI (Net)	5.00%
		100.00 %
31-Dec-2008 - 31-N	/ar-2009	
Domestic Broad Eq Domestic Fixed Real Estate	Russell 3000 Index Bloomberg Universal NCREIF Property Index+0.50%	37.20% 30.00% 9.70%
Intl Equity Other Alternatives Global Equity	MSCI ACWI xUS (Net) Alternative Asset Benchmark	15.00% 3.10%
Broad	MSCI ACWI (Net)	5.00%
		100.00%
30-Sep-2008 - 31-E	Dec-2008	
Domestic Broad		
Eq Domestic Fixed	Russell 3000 Index Bloomberg Universal	38.90% 30.00%
Real Estate	NCREIF Property Index	8.20%
Intl Equity	MSCI ACWI xUS (Net)	15.00%
Other Alternatives Global Equity	Consumer Price Index (W) + 5%	2.90%
Broad	MSCI ACWI (Net)	5.00%
		100.00%
30-Jun-2008 - 30-S	ер-2008	
Domestic Broad	-	
Domestic Broad Eq	Russell 3000 Index	40.00%
Domestic Broad	Russell 3000 Index Bloomberg Universal	40.00% 30.00% 7.30%
Domestic Broad Eq Domestic Fixed Real Estate Intl Equity	Russell 3000 Index Bloomberg Universal NCREIF Property Index MSCI ACWI xUS (Net)	30.00% 7.30% 15.00%
Domestic Broad Eq Domestic Fixed Real Estate Intl Equity Other Alternatives	Russell 3000 Index Bloomberg Universal NCREIF Property Index	30.00% 7.30%
Domestic Broad Eq Domestic Fixed Real Estate Intl Equity	Russell 3000 Index Bloomberg Universal NCREIF Property Index MSCI ACWI xUS (Net)	30.00% 7.30% 15.00%
Domestic Broad Eq Domestic Fixed Real Estate Intl Equity Other Alternatives Global Equity	Russell 3000 Index Bloomberg Universal NCREIF Property Index MSCI ACWI xUS (Net) Consumer Price Index (W) + 5%	30.00% 7.30% 15.00% 2.70%
Domestic Broad Eq Domestic Fixed Real Estate Intl Equity Other Alternatives Global Equity	Russell 3000 Index Bloomberg Universal NCREIF Property Index MSCI ACWI xUS (Net) Consumer Price Index (W) + 5% MSCI ACWI (Net)	30.00% 7.30% 15.00% 2.70% 5.00%
Domestic Broad Eq Domestic Fixed Real Estate Intl Equity Other Alternatives Global Equity Broad 30-Jun-2007 - 30-J Domestic Broad	Russell 3000 Index Bloomberg Universal NCREIF Property Index MSCI ACWI xUS (Net) Consumer Price Index (W) + 5% MSCI ACWI (Net)	30.00% 7.30% 15.00% 2.70% 5.00% 100.00%
Domestic Broad Eq Domestic Fixed Real Estate Intl Equity Other Alternatives Global Equity Broad <b>30-Jun-2007 - 30-J</b> Domestic Broad Eq	Russell 3000 Index Bloomberg Universal NCREIF Property Index MSCI ACWI xUS (Net) Consumer Price Index (W) + 5% MSCI ACWI (Net) un-2008 Russell 3000 Index	30.00% 7.30% 15.00% 2.70% 5.00% 100.00% 44.00%
Domestic Broad Eq Domestic Fixed Real Estate Intl Equity Other Alternatives Global Equity Broad 30-Jun-2007 - 30-J Domestic Broad	Russell 3000 Index Bloomberg Universal NCREIF Property Index MSCI ACWI xUS (Net) Consumer Price Index (W) + 5% MSCI ACWI (Net)	30.00% 7.30% 15.00% 2.70% 5.00% 100.00%
Domestic Broad Eq Domestic Fixed Real Estate Intl Equity Other Alternatives Global Equity Broad 30-Jun-2007 - 30-J Domestic Broad Eq Domestic Fixed Real Estate Intl Equity	Russell 3000 Index Bloomberg Universal NCREIF Property Index MSCI ACWI xUS (Net) Consumer Price Index (W) + 5% MSCI ACWI (Net) un-2008 Russell 3000 Index Bloomberg Universal NCREIF Property Index MSCI ACWI xUS (Net)	30.00% 7.30% 15.00% 2.70% 5.00% 100.00% 44.00% 30.00% 5.00% 16.00%
Domestic Broad Eq Domestic Fixed Real Estate Intl Equity Other Alternatives Global Equity Broad 30-Jun-2007 - 30-J Domestic Broad Eq Domestic Fixed Real Estate	Russell 3000 Index Bloomberg Universal NCREIF Property Index MSCI ACWI xUS (Net) Consumer Price Index (W) + 5% MSCI ACWI (Net) un-2008 Russell 3000 Index Bloomberg Universal NCREIF Property Index	30.00% 7.30% 15.00% 2.70% 5.00% 100.00% 44.00% 30.00% 5.00% 16.00% 5.00%
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Domestic Broad Eq Domestic Fixed Real Estate Intl Equity Other Alternatives Global Equity Broad <b>30-Jun-2007 - 30-J</b> Domestic Broad Eq Domestic Fixed Real Estate Intl Equity Other Alternatives <b>30-Nov-2006 - 30-J</b> Domestic Broad Eq Domestic Fixed Real Estate Intl Equity Other Alternatives	Russell 3000 Index Bloomberg Universal NCREIF Property Index MSCI ACWI xUS (Net) Consumer Price Index (W) + 5% MSCI ACWI (Net) un-2008 Russell 3000 Index Bloomberg Universal NCREIF Property Index MSCI ACWI xUS (Net) Consumer Price Index (W) + 5% un-2007 Russell 3000 Index Bloomberg Universal NCREIF Property Index MSCI ACWI xUS (Net) Consumer Price Index (W) + 5%	30.00% 7.30% 15.00% 2.70% 5.00% 100.00% 44.00% 30.00% 5.00% 16.00% 5.00% 100.00% 44.00% 26.00% 5.00% 5.00%

**Domestic Broad** Eq Russell 3000 Index 47.00% **Bloomberg Universal** 18.00% Domestic Fixed Real Estate NCREIF Property Index 10.00% MSCI ACWI xUS (Net) 12.00% Intl Equity Other Alternatives Consumer Price Index (W) + 5% 10.00% Global Fixed-Inc Brandywine Blended Benchmark 3.00% 100.00% 31-Oct-1997 - 30-Jun-2003 **Domestic Broad** S&P 500 Index 50.00% Eα 18.00% Domestic Fixed **Bloomberg Universal** NCREIF Property Index 10.00% Real Estate MSCI EAFE (Net) Consumer Price Index (W) + 5% 9.00% Intl Equity Other Alternatives 10.00% 3.00% Global Fixed-Inc Brandywine Blended Benchmark 100.00% 31-Mar-1990 - 31-Oct-1997 Domestic Broad 50.00% 18.00% S&P 500 Index Eq Domestic Fixed Bloomberg Universal NCREIF Property Index 10.00% Real Estate MSCI EAFE (Net) 9.00% Intl Equity Consumer Price Index (W) + 5% JPM GBI Global Unhedged USD 10.00% Other Alternatives Global Fixed-Inc 3.00% 100.00% 30-Jun-1975 - 31-Mar-1990 **Domestic Broad** S&P 500 Index 50.00% 10.00% Eq NCREIF Property Index Real Estate 9.00% Intl Equity MSCI EAFE (Net) Other Alternatives Consumer Price Index (W) + 5% 10.00% **Global Fixed-Inc** JPM GBI Global Unhedged USD 3.00% 82.00%

30-Jun-2003 - 30-Nov-2006

Alternatives Benchmark represents from 7/1/2022 to present: 66.7% Russell 3000 ldx + 2% (1 qtr lag) and 33.3% ((50% S&P LSTA Leveraged Loan 100 ldx + 50% Bloomberg HY ldx) + 1%) (1 qtr lag). From 7/1/2019 to 7/1/2022: 66.7% S&P 500 +3% (1 qtr lag) + 33.3% S&P LSTA Leverage Loan

100 Index (1 qtr lag). From 7/1/2016 to 7/1/2019: 33.3% S&P 500 +3% (1 qtr lag) + 33.3% S&P LSTA Leverage Loan 100 Index

(1 qtr lag) + 33.3% of Cash (6-mo USD LIBOR) + 5%. From 7/1/2015 to 7/1/2016: 33.3% S&P 500 +3% (1qtr lag)

+ 33.3% S&P LSTA Leverage Loan 100 ldx(1 qtr lag) + 33.3% of Cash (1 month USD LIBID) +5%. From 7/1/2013 to 7/1/2015:

S&P 500 plus 5% (1 qtr lag). From 7/1/2011 to 7/1/2013: Qtr ending weight of Private Equity x S&P 500 plus 5%

+ Qtr ending weight Absolute Return x CPI + 5%. Prior to 7/1/2011: CPI + 5%.



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# Independent Investment Committee's Quarterly Report to the Board February 11, 2025



## **Discussion Topics**

- Asset Allocation and Portfolio Structure
- Investment Performance
- Universe Comparisons
- Investment Expenses by Asset Class

### **Key Observations**

NHRS Pension Plan

#### Asset Allocation and Portfolio Structure

Overall, the Fund's asset allocation was close to the permissible Policy ranges at quarter-end. The Fund's allocation to defensive positions, including fixed income and cash, represented 20.9% of total assets. The fixed income allocation was slightly below the policy range by 0.7%, partially balanced by a 1.6% allocation to cash equivalent instruments. The Fund had an overweight to domestic equity and alternatives relative to target, and underweight positions to international equity fixed income, and real estate.

#### **Investment Performance**

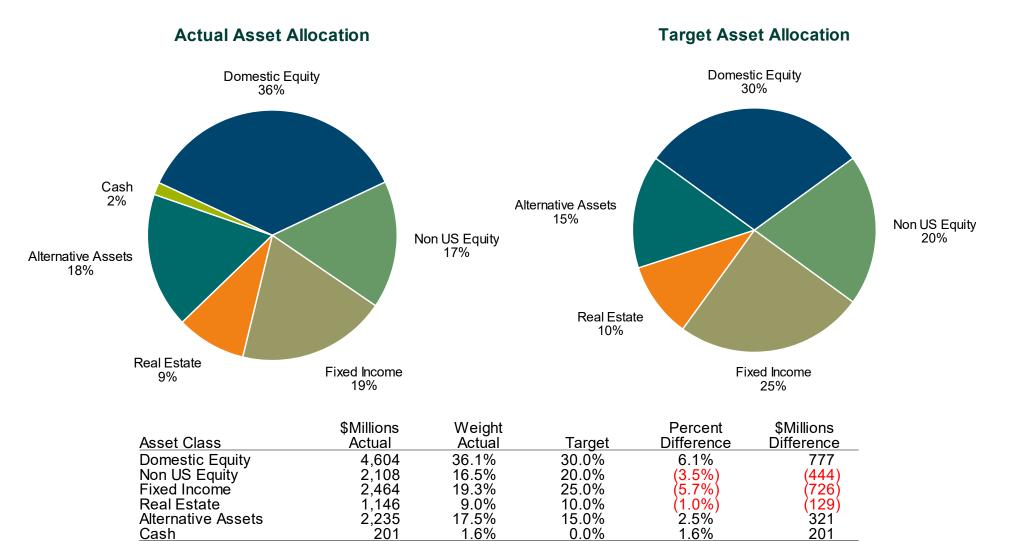
- The Fund had a gross return of 4.94% over the first quarter of Fiscal Year 2025, underperforming the market benchmark return of 5.18% and ranking in the 39<sup>th</sup> percentile of its peers. On a net-of-fees basis, the Fund returned 4.78%
  - The Alternative Assets and Non-U.S. Equity portfolios detracted most from relative performance over the quarter. The Fund's
    overweight to Alternatives Assets and active manager performance in Non-U.S. Equity also detracted from performance.
  - By contrast, the Domestic Equity, Fixed Income, and Real Estate portfolios contributed to performance. The Fund's overweight to Domestic Equity and underweight to Real Estate also contributed to performance.
- Overall, performance is competitive relative to both benchmarks over longer periods measured. The Fund outperformed the peer group median over the long term, ranking in the top 23% of peers for the trailing 10-year period, and in the top 49% of peers over the last 25 years.
- The Fund exhibits attractive risk-adjusted performance, as measured by the Sharpe Ratio over the last five years. In addition, relative risk-adjusted scores, as measured by the Excess Return Ratio, are also strong. Both of these ratios ranked in the top 30% of peers.

#### **Other Developments**

• Callan and NHRS Staff are working to implement the recently approved asset allocation strategy.

### **Total Fund**

### Actual Asset Allocation vs. Target as of September 30, 2024



\*Current Quarter Target = 30% Russell 3000 Index, 25% Bloomberg Universal, 20% MSCI ACWI ex US, 10% NCREIF NFI-ODCE Val Wt Net lagged 3 months, 10% Russell 3000 Index lagged 3 months+2.0%, 2.5% Bloomberg HY Corp lagged 3 months+1.0%, and 2.5% S&P/LSTA Lev Loan 100 lagged 3 months+1.0%.

100.0%

100.0%

\*\*The United States equity portion of the Walter Scott Global Equity fund is allocated to the Domestic Equity composite.

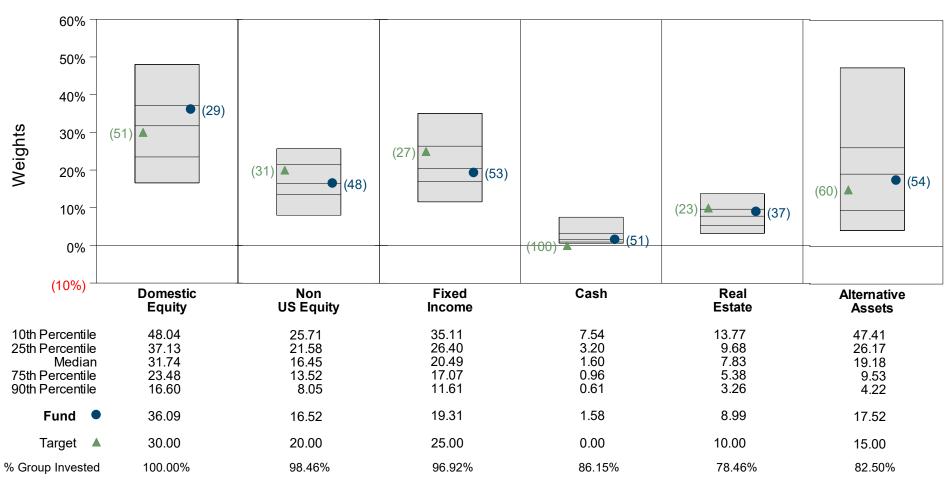
12,759



Total

### **Total Fund**

Actual Asset Allocation vs. Large Public DB Plan (>\$1B) Peer Group, as of September 30, 2024



Asset Class Weights vs Callan Public Fund Spons - Large (>1B)

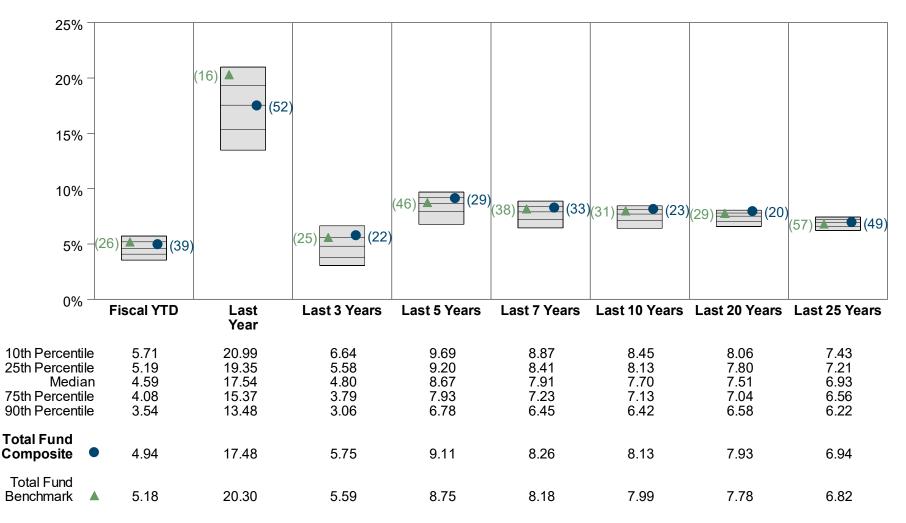
\*Current Quarter Target = 30% Russell 3000 Index, 25% Bloomberg Universal, 20% MSCI ACWI ex US, 10% NCREIF NFI-ODCE Val Wt Net lagged 3 months, 10% Russell 3000 Index lagged 3 months+2.0%, 2.5% Bloomberg HY Corp lagged 3 months+1.0%, and 2.5% S&P/LSTA Lev Loan 100 lagged 3 months+1.0%.



### **Total Fund Performance – Gross of Investment Management Fees**

Performance vs. Large Public DB Plan (>\$1B) Peers, as of September 30, 2024

### Performance vs Callan Public Fund Large DB (Gross)



Note: Investment results are shown gross of investment management fees versus corresponding peer group.

\*Current Quarter Target = 30% Russell 3000 Index, 25% Bloomberg Universal, 20% MSCI ACWI ex US, 10% NCREIF NFI-ODCE Val Wt Net lagged 3 months, 10% Russell 3000 Index lagged 3 months+2.0%, 2.5% Bloomberg HY Corp lagged 3 months+1.0%, and 2.5% S&P/LSTA Lev Loan 100 lagged 3 months+1.0%.

### **INVESTMENT EXPENSES BY ASSET CLASS**

#### Investment activity fees and other related expenses: For the Quarter and Fiscal Year to Date through 9/30/24 (in thousands)

	Assets Under Management	Fees (Quarter)	Fees (FYTD)
Equity Investments			
Domestic (U.S.)	4,604,381	3,385	3,385
Non-U.S.	2,108,070	2,486	2,486
Fixed Income Investments	2,464,076	1,565	1,565
Alternative Investments	2,234,847	8,564	8,564
Real Estate Investments	1,146,471	2,823	2,823
Cash	201,249		
Subtotal Gross Investment Mgt Fees		18,822	18,822
Custodial Fees		176	176
Brokerage Fees		654	654
Investment Advisor Fees		163	163
Investment Professional Fees		207	207
Investment Staff Administrative Expense		283	283
Subtotal Investment Servicing Fees		1,484	1,484
TOTAL GROSS INVESTMENT EXPENSES	12,759,094	20,305	20,305

Notes:

1. Fees for both the Quarter and the Fiscal Year to Date shown here are reported on a cash basis. For most fees, there is a lag between the service provided and payment of the fee.

2. Gross fees are those paid in the quarter for partnership operating costs.

3. Annual audited GAAP accrual fee amounts are included in the Annual Comprehensive Financial Report (ACFR), audited by the external auditor Plante Moran, as well as in the Comprehensive Annual Investment Report (CAIR). Both reports are available at https://www.nhrs.org/funding-and-investments/reports-valuations.

4. NHRS requires a "most favored nation" clause in investment contracts that states that if another comparable public plan invests in a fund at a lower fee structure, NHRS' fees will also be adjusted downward.

#### **DEFINITION OF ASSET CLASSES**

**Domestic Equity:** The allocation to domestic equity serves to expose the fund to the largest economy of the world. An allocation to domestic equity should allow for return enhancement and principal appreciation.

**Non-U.S. Equity:** The allocation to non-U.S. equity, both developed and emerging markets, will serve as potential for return enhancement and principal appreciation. A secondary consideration is the diversification it provides from the U.S. market. While the U.S. and non-U.S. markets are considerably correlated, they are not perfectly correlated. Assets that are not perfectly correlated serve to reduce volatility over the long term.

**Fixed Income:** The investment in fixed income will serve to reduce volatility experienced in the equity markets, as well as offer an opportunity for return enhancement by investment in selected securities (for example, investment grade corporates and high yield).

A portion of the fixed income allocation is expected to be invested in Treasury or other government-related issues, which will serve to reduce risk within the portfolio.

Alternative Investments: Alternative investments are nontraditional investments, not covered by another investment class. In general, alternative investments are incorporated into the NHRS asset allocation to enhance the portfolio's risk-adjusted return (private equity/private debt) or to diversify volatility (opportunistic strategies). While the risk associated with these types of investments is higher than that of other asset classes, the expected return is also higher.

**Real Estate:** The investment in real estate will serve as an inflation hedge, return enhancement opportunity, income generator, and diversification source and will include investments within core, value-added, and opportunistic opportunities.

			IRS		
To:		·	etirement System and Board of Trustees		
From:	Raynald Leveque, Chief Investment Officer				
Date:	January 14, 2025				
Re:	2024 Pro	xy Voting Su	nmary		
Item:	Action: [		Discussion:	Informational: 🔀	

Shareholder responsibility is fundamental to good corporate governance, which requires an appropriate balance between the rights of shareholders and the need for management and the board to direct a corporation's affairs with a long-term perspective. The System's shareholder voting rights must be managed with the same care as any of its other assets. Therefore, the Board has adopted a formal Proxy Voting Policy reflecting three objectives: to protect the System's rights; to promote responsible corporate policies and activities; and, to enhance long-term value.

The Proxy Voting Policy under which voting was conducted during calendar year 2024 was adopted by the Board on April 9, 2024. The Policy will be reviewed with Institutional Shareholder Services ("ISS"), the System's proxy voting agent, in early 2024 to ensure that it reflects current industry practices and any changes necessary due to new legislation. Should changes to the Policy be recommended by ISS, a revised Policy will be presented to the Investment Committee for recommendation to the Board.

For the 2024 calendar year, a total of 15,081 proposals were voted, representing 1,246 meetings for the companies owned in the System's investment portfolio. Among other things, the proxies focused on the election of board directors, auditor ratification and executive compensation. System policies generally support management if the position is reasonable, is not detrimental to the long-term economic prospects of the company, and does not tend to diminish the rights of shareholders.

All votes cast during 2024 were compliant with the System's Proxy Voting Policy, barring one not applicable vote which had no impact on the outcome.

A summary of 2024 proxy voting is provided below.

#### Summary of 2024 Proxy Voting:

	For	Against	Abstain/Withhold	Total
Management Proposals	12,577	1,249	542	14,368
Shareholder Proposals	158	83	388	629
Total	12,735 (85%)	1,332 (9%)	930 (6%)	14,997*

\* Does not include 84 "Say on Pay Frequency" votes, as these are not voted on a *For* or *Against* basis, but are voted for either *One, Two,* or *Three Year* terms.

	New Hampshire Retirement			
To:	Board of Trustees	Board of Trustees		
From:	Raynald Leveque, 0	Raynald Leveque, Chief Investment Officer		
Date:	February 11, 2025			
Re:	Revised Investment Manual and Policy			
Item:	Action:	Discussion:	Informational:	

Attached for your review and feedback is the clean and redlined versions of the System's Investment Manual, which incorporates the latest updates to reflect significant changes in the NHRS asset classes, benchmarks, and internal procedures. These revisions also include the most recent Board-approved adjustments to the asset allocation strategy.

The changes to the Investment Manual are reflected in several key sub-components, including the Investment Policy, Global Equity Guidelines, Fixed Income Guidelines, Private Markets Investment Guidelines (formerly known as Alternative Investment Guidelines), and the Accountability Matrix.

The Private Markets Investment Guidelines have been modernized to reflect current industry language and practices, with updated targets and revised asset allocation to better align with evolving market trends.

These updates are designed to ensure alignment with the System's long-term investment objectives and to enhance the overall investment framework.

Please note that the Investment Manual was last reviewed and formally approved by the Board of Trustees (BOT) on June 14, 2022.

Changes to the Investment Policy are reflected on the following pages:

- Pages 2 6: Revisions related to additional parties and stakeholders; reclassification of the lead investment executive from Director of Investments to Chief Investment Officer (CIO), Investment Staff to Investment Team;
- Page 9: Relative to the approved asset classes and target allocation ranges;
- Pages 10 11: Revisions to asset class definitions to align with current industry terminology;
- Pages 13 15: Relative to benchmarks;
- Addition of previously approved Infrastructure guidelines;

Changes to the Global Equities Guidelines Policy

 Transitioning from the Domestic Equities and Non-US Equities policy to a Global Equities policy to align with the newly approved Global Equity asset class as of December 2023;

#### Changes to Fixed Income Guidelines

Updates to allowable ranges based on prior BOT approval at the December 10, 2024 meeting;

#### Changes to Private Markets Guidelines

- Reclassification of asset class grouping from Alternative Investments to Private Markets;
- Pages 1 5: Revisions to update language found in document to current industry language and practices;
- Page 1: Changes to allocation targets, in addition to new Infrastructure asset class;

#### Changes to Accountability Matrix

- Pages 1 11: Reclassification of the lead investment executive role from Director of Investments to Chief Investment Officer (CIO);
- Page 11: Update to Legal Counsel responsibility/duty in relation to proxy voting service provider;

#### At its January meeting, the Independent Investment Committee unanimously voted to update the Investment Manual, as outlined below, for recommendation to the Board of Trustees for approval.

This recommendation will include the specification of the Non-US Equity benchmark as the MSCI All Country World excluding US Investable Market Index (MSCI ACWI ex. US IMI). This specific benchmark will be presented to the IIC for approval at today's meeting. This benchmark will ensure alignment with the Total Equity benchmark at the asset class level, which is the MSCI ACWI IMI).

#### I recommend that the Board of Trustees conditionally approve the updated Investment Manual and Investment Policy, inclusive of the MSCI ACWI ex. US IMI benchmark specification.

For completeness and transparency, the Board materials include all the same materials from the January 2025 IC meeting supporting this recommendation, which includes the clean and redline version.

## **Table of Contents**

### <u>Section I</u>

- Investment Policy
- Proxy Voting Policy
- Securities Lending Policy
- Securities Litigation Policy
- Private Markets Disclosure Policy

## Section II

Accountability Matrix

## Section III

 Independent Investment Committee Charter

## Section IV

## Investment Guidelines

- Global Equity
- Global Fixed Income
- Private Markets Investments
  - Real Estate
  - Infrastructure

#### New Hampshire Retirement System Investment Policy Amended by NHRS Board of Trustees on February 11, 2025

#### I. Introduction to the Investment Policy

The purpose of this Investment Policy is to:

- A. Fulfill the Board's and IIC's statutory duty to oversee the investments of NHRS in accordance with the basic fiduciary responsibilities. These duties include:
  - Managing the fund with the care, skill, prudence, and diligence under the circumstances then prevailing that a prudent person acting in a like capacity and familiar with these matters would use in the conduct of an enterprise of a like character with like objectives.
  - Making all decisions solely in the interest of, and for the exclusive purpose of providing benefits to the members, retirees, and their beneficiaries.
  - Defraying reasonable administrative expenses.
- B. Set forth the investment policies the Board and IIC judge to be appropriate, prudent and, in consideration of the Systems' needs, to comply with current laws and to direct the investment of the System's assets.
- C. Ensure appropriate flexibility within the investment process to allow for the System to participate in prudent investment opportunities while also establishing risk parameters within which the portfolio will operate.
- D. Establish criteria to evaluate the System's investment performance.
- E. Communicate investment policies, objectives, asset class guidelines, and performance criteria to the investment team, external investment managers/advisors, consultants, custodians, and all other interested parties.
- F. Serve as a review document to guide ongoing oversight of the System's investments for compliance with the laws of New Hampshire.

#### II. Responsible Parties and Their Duties

Key parties that participate in the investment decision-making and oversight process for NHRS include the:

- Board of Trustees
- Independent Investment Committee (IIC)
- Investment Team (Team)
- Investment Consultants
- Investment Advisors
- Investment Managers
- Custodian Bank
- Proxy Voting Service Provider
- Investment Service Providers
- External Fund Counsel
- Internal Stakeholders:
  - Finance & Accounting
  - o Legal
  - Information Technology
  - Communications

#### **Board of Trustees:**

The Board sets investment policy in accordance with applicable State and Federal laws, hires the investment consultant(s), and sets policy for establishing and modifying investment objectives. The Board also has responsibility to review quarterly and annual reports from the IIC.

#### Independent Investment Committee:

The IIC prepares for the Board's review and approval an investment policy statement, including investment objectives, an expected rate of return the System is attempting to earn, asset allocation targets and ranges, and identification of appropriate benchmarks. The IIC has the full power to hold, purchase, sell, assign, transfer, and dispose of any securities and investments, as well as the proceeds of such investments, in accordance with the policy set by the Board. The IIC has the responsibility to establish asset class guidelines and for selecting, monitoring, and terminating investment managers. The IIC is responsible for reporting to the Board on a quarterly and annual basis as directed by the statute.

#### Investment Team:

The NHRS Investment Team, led by the Chief Investment Officer (CIO), is responsible for implementation of the investment decisions made by the Board of Trustees and/or the IIC. In general, the responsibilities of the Investment Team include:

- Ensuring the asset allocation of the Fund is implemented in accordance with the policy approved by the Board, including rebalancing as necessary in accordance with the investment policy
- Monitoring policy and statutory compliance of the portfolio

- Assisting the IIC in developing investment policy recommendations to present to the Board for approval
- Monitoring investment managers and performing due diligence on new investment opportunities or managers as directed by the IIC
- Coordinating work with the investment consultant or any other investment-related service provider selected by the Board
- Conducting special research or analysis as directed by the Board, IIC, or CIO
- Ensuring the Board and IIC receive appropriate reporting regarding the investment portfolio

#### Investment Consultants:

The investment consultant will perform those services as described in its contract, either general consulting or specific asset class consulting. The investment consultant is hired by the Board and is expected to work cooperatively and collaboratively with the Board, the IIC, as well as the Investment Team.

In general, the investment consultant's responsibilities may include:

- Providing advice on total plan asset allocation, or specific asset class guidance
- Assisting the Board, IIC, and Team with decision-making
- Providing reviews of investment policy, asset class structure, and investment manager due diligence
- Calculating performance
- Reporting and analyzing performance of the total portfolio, asset classes, and individual investment managers
- Performing research as needed
- Providing investment education to the Board, IIC and team as requested
- Reporting quarterly to the Board on investment consultant contract fulfillment actions
- Reporting quarterly to the Board on recommendations made to the IIC and the status of their recommendations.

#### Investment Advisors:

The investment advisor will carry out the duties stipulated in their contractual agreements. Engaged by the Board, they are expected to actively cooperate and collaborate with the Investment Team, IIC, and the Board. The advisors may have full and complete discretion and authority with respect to the selection and management of investments in a specific asset class.

Broadly, the responsibilities of the investment advisors encompass:

- Assisting the Board, IIC and team with due diligence, selection, review, management and reporting.
- Providing strategic guidance to the IIC and Team on investment strategies, market trends, and economic developments as requested

• Ensuring all investments comply with legal and regulatory requirements and preparing detailed reports for stakeholders on the fund's financial health and performance.

#### Investment Managers:

The investment managers hired by the IIC have the duty to manage the assets allocated to them as fiduciaries and in accordance with the Investment Management Guidelines established for their accounts and their individual contracts. Investment managers must execute all transactions for the benefit of NHRS and update NHRS regarding any major changes to the portfolio management team, investment strategy, portfolio structure, ownership, organizational structure, or other changes relevant to the account.

Managers may also play a role in transition management, which includes the following responsibilities:

- Transition Planning: Develop transition strategies, including setting timelines and milestones.
- Execution Management: Oversee trade execution and coordinate with custodians, brokers, and other relevant parties.
- Risk Management and Compliance: Manage risks, ensure compliance, and oversee transition processes.
- Performance Monitoring: Track the transition's performance against benchmarks and objectives and provide regular updates.
- Providing guidance to investment office when executing asset class transition management.

#### **Custodian Bank:**

The duties of the custodian bank are set forth by their contract with NHRS.

In general, the custodian's responsibilities include:

- Safekeeping of NHRS assets
- Settling investment transactions and collecting income
- Preparing monthly and year-end accounting statements
- Serving as the "book of record" for investment transactions and valuations
- Properly recording and reporting investment activities, transactions, income, and valuations
- Calculating and reporting on gross and net investment performance as well as other investment analytics

When selecting the custodian bank, the IIC will use the current industry standards appropriate for evaluating the qualifications of a custodian bank.

#### **Proxy Voting Service Provider:**

The duties of the proxy voting service provider are set forth by their contract with NHRS.

In general, those responsibilities include:

- Voting proxies on behalf of NHRS per the Proxy Voting Policy
- Providing research reports
- Preparing monthly and year-end summaries
- Alerting the Investment Team to issues not covered by the NHRS Proxy Voting Policy
- Recommending revisions to the NHRS Proxy Voting Policy
- Assisting in revising the NHRS Proxy Voting Policy

#### Transparency / Monitoring Service Provider:

The duties of the Transparency and Monitoring Service Provider, as outlined in their contract with NHRS, include:

- Analyzing financial documentation: Identify and advise on any potential fee discrepancies between contracted Investment Managers and NHRS
- Detecting hidden fees and costs: Search for and analyze hidden fees or costs charged to funds or portfolio investments (e.g., double fee layers, placement agents) and assess any excessive high operating expenses
- Presenting findings: Report findings to NHRS and the respective managers.
- Negotiating resolutions: Work to resolve any identified issues
- Monitoring refunds and optimizations: Oversee the refund process and ensure optimization where applicable

#### **External Fund Counsel:**

The duties of external fund counsel, as outlined in their contract with NHRS, include but not limited to:

- Engagement and legal diligence for prospective contracts for fund investments and subscription to private fund mandates and commitments
- Review and assistance with negotiating private investments with external general partners and fund managers
- Representation and assistance in administrative, regulatory proceedings, or litigation related to investment matters
- Ongoing notification and education relevant to changes in the law and industry practices affecting investments

#### **Internal Partners:**

The duty of the internal NHRS partners, is to support and/or facilitate activities being performed by the Investment Team to fulfill fiduciary responsibilities to the beneficiaries. The internal partners are made up of the following teams:

Finance & Accounting:

- Cash Management and Financial Reporting
- Processing wires required to fund new investments and/or capital calls, pay service providers and vendors
- Maintaining log of Investment-related transactions
- Budget oversight ensuring the alignment of investment decisions with the fund's budgetary constraints and cash flow needs

Legal:

- Regulatory compliance: Ensure investment activities align with local, state, and federal laws
- Vendor contract review: Assess and approve agreements with external managers, custodians, and consultants
- Coordination with external fund counsel in the legal diligence of investment management agreements with external general partners and fund managers

Information Technology:

- Supporting the secure storage and accessibility of investment-related data systems
- Ensuring that software platforms for investment analytics, risk management, and accounting work seamlessly
- Overseeing the implementation process, ensuring the system is tested and seamlessly integrated

Communications:

- Stakeholder engagement: Facilitate communication between the Investment Team, board members and plan participants
- Policy dissemination: Ensure clarity and accessibility of the investment policy statement to relevant parties.

The Accountability Matrix incorporated herein by reference further summarizes key responsibilities and duties of the Board; IIC; Chief Investment Officer and Investment Team; Internal Legal Team; Investment Consultant(s); and Actuary. Additional responsibilities are also detailed in the Board's governance manual, contracts, and NHRS's position descriptions for Team.

#### III. Investment Objectives

Considering the purpose of the System, the Board, based on the recommendation of the IIC, has adopted the following investment objectives:

- Efficiently allocate and manage the assets of the Fund so that beneficiaries will receive promised benefits.
- Manage the portfolio on a total return basis, which recognizes the importance of the preservation of capital, as well as the fact that reasonable and varying degrees of investment risk are generally rewarded over the long-term
- Work towards achieving and then maintaining a fully funded pension status.
- Exceed the Policy benchmark on a net of fees basis over a full market cycle.

#### **IV. Risk Management**

The Board's role in risk management is to approve the asset allocation targets and ranges for each asset class of the Fund. The Board recognizes that in order for the Fund to achieve its investment objectives, a reasonable level of risk must be present within the investment portfolio. Risk is referenced both in terms of absolute risk (the risk of loss) and volatility (the variability of returns). The Board will seek to minimize the risk of loss by approving an asset allocation that includes an appropriate level of diversification of Fund assets. The Board will periodically review the level of risk as represented by the asset allocation targets and ranges within the Fund and each asset class to ensure it is reasonable and within its tolerance for risk. Equity volatility (risk) is among the highest for any asset class. Other risks that the Board will consider when approving investment policy include benchmark risk, timing risk, market risk, credit risk, currency risk, liquidity risk, and any other risk it determines is relevant.

The Board acknowledges that the IIC also has a responsibility to consider risk when recommending asset allocation, and to monitor risks within the portfolio. The IIC will consider market risk, credit risk, currency risk, liquidity risk, and any other risk it believes to be relevant when it determines an asset allocation to recommend to the Board. The IIC is responsible for risk management at the manager level as it decides upon the number and types of managers to utilize within each asset class portfolio. When making decisions, the IIC will consider idiosyncratic risk (firm specific risk), benchmark risk, timing risk, market risk, credit risk, liquidity risk, interest rate risk, operational risk, concentration risk or any other risk it determines relevant as it makes its decisions.

The investment managers are responsible for risk management within the portfolio they manage on behalf of NHRS. Investment managers will consider those risks most relevant to their portfolio, which could include market risk, credit risk, currency risk, liquidity risk, inflation risk, geo-political risk, political risk, interest rate risk, and operational risk.

Descriptions of major types of risk follow:

- A. <u>Credit Risk</u>: The risk of default of a party owing cash to the System as the result of a transaction. These parties may include, but are not limited to, the counterparty and the issuer.
- B. <u>Counterparty risk (default risk)</u>: The risk to each party of a contract that the counterparty will not live up to its contractual obligations. Counterparty risk is a risk to both parties and should be considered when evaluating a contract.
- C. <u>Liquidity Risk</u>: There are two types of liquidity risk: market liquidity risk and funding liquidity risk. Market liquidity risk is the risk of being unable to purchase or liquidate a security quickly enough (or in requisite quantities) at a fair price. Market liquidity risk differs from market risk (defined below). Market liquidity risk only reflects realized price changes, while market risk reflects both realized and unrealized price changes. Funding liquidity risk relates to the relative ease of the organization to meet its cash flow needs as they come due.
- D. <u>Market Risk</u>: The risk of unexpected change in market price (amount or direction). Price changes in securities can result from movements in equity markets, interest rates, and currency exchange rates, in addition to various other factors. Market risk incorporates both realized and unrealized price changes.
- E. <u>Systemic Risk:</u> Risk that affects an entire financial market or system, and not just specific asset classes. Systemic risk cannot be avoided through diversification.
- F. <u>Absolute Risk</u>: Risk of loss of capital.
- G. Volatility Risk: The variability of returns often used as a proxy for risk.
- H. <u>Operational Risk</u>: The risk of inadequate controls against fraud, incorrect market valuation, failure to record or settle a deal, settlement with the wrong counterparty, failure to collect amounts due, failure of the computer system, or enforceability of contracts. The implications of operational risk include both financial loss and loss of reputation.
- I. <u>Geo-Political Risk</u>: The risk of the occurrence of an unanticipated international and/or domestic incident such as war, assassination, terrorism or energy shock that adversely affects global and capital markets resulting in the re-pricing of securities.
- J. <u>Political Risk</u>: The risk of nationalization or other unfavorable government action.

- K. <u>Idiosyncratic Risk</u>: Firm specific risk or the risk of the change in price of a security due to the unique circumstances of that security.
- L. <u>Benchmark Risk:</u> The risk that an investment may outperform or underperform its target return.
- M. <u>Interest rate risk:</u> The risk of an investment losing value (such as bonds) when interest rates rise. Rising interest rates increase the cost of doing business for most companies and can also, thereby, raise market risk.
- N. <u>Inflation risk:</u> The risk that rising inflation may erode the value of income and/or assets.
- O. <u>Currency risk:</u> The risk that currency movements will negatively impact an investment's return. If the value of the U.S. dollar rises in relation to other currencies, the value of foreign stock shares translates into a smaller number of U.S. dollars for investors who hold those shares. Put another way, a "strong" dollar can buy more foreign goods, including foreign stocks. Conversely, if the dollar falls in relation to other currencies, the value of foreign stock shares rises, as more "weak" dollars are needed to buy a given amount of foreign stock.
- P. <u>Timing risk:</u> The risk that the market will not move in the anticipated direction when an investment is made (upward for long positions, and downward for short positions).
- Q. <u>Concentration risk:</u> The risk that the System does not appropriately and effectively diversify the assets within an asset class. An example of concentration risk is having too large a percentage of System assets with a single investment manager.

#### V. Asset Allocation

The Board approves the asset allocation targets and ranges for each asset class of the Fund (the allowable asset classes and the distribution of assets among those asset classes) based on recommendations from the IIC. As fiduciaries, the Board and the IIC have a duty to diversify the investments of the System to reduce risk, while maximizing the investment return. Approximately ninety percent (90%) of the long-term total return stems from the asset allocation decision. The remaining ten percent (10%) is expected to be attributable to either the selection of individual assets or timing. Accordingly, asset allocation based on recommendations from the IIC, which relies upon the advice from the Chief Investment Officer and the investment consultant to formulate its recommendations to the Board.

The asset allocation approved by the Board will reflect the results of an Asset Allocation Study performed at least once in every five-year period, or more often, as recommended by the IIC, in consultation with the Investment Team and investment consultant. The study may also include an Asset Liability Study that analyzes the current assets and projected liabilities under various scenarios to ensure long-term funding for retiree benefits.

The Asset Allocation Study identifies a mix of investments, by asset class, which is expected to produce the return required to meet future funding requirements at the lowest level of risk, given all of the assumptions made and employing a mean-variance optimization model.

The asset allocation chart, which follows, lists the approved asset classes in the portfolio and the target percentages and ranges, at market value, of the System's assets to be invested in each. Due to fluctuations of market values, positioning within a specified range is acceptable and constitutes compliance with the policy. Based on the approved asset allocation, recommendations from the System's consulting actuary, IIC, investment managers and the Team, the Board adopts an assumed rate of return, which is subject to periodic change and which is the long-term return that can be expected from this combination of assets. As of June 9, 2020, the assumed rate of return was 6.75%.

Asset Class	Target Allocation	Allocation Range
Public Markets:		
Global Equity	40%	30 - 50%
Global Fixed Income	25%	18 – 32%
Private Markets:		
Private Equity	10%	5 – 15%
Private Credit	10%	0 – 15%
Infrastructure	5%	0 – 10%
Real Estate	10%	5 – 20%
Cash:	0%	0 – 5%

Asset Allocation Targets were approved in December 2023 and the Ranges approved in December 2024.

The Board has approved the use of the above listed asset classes for the following reasons:

<u>Global Equity:</u> The allocation to global equity serves to expose the fund to economic growth throughout the world and will serve as the primary growth engine for capital appreciation.

<u>Global Fixed Income</u>: The investment in fixed income will serve to reduce volatility experienced in the equity markets, as well as offer an opportunity for return enhancement by investment in selected securities (for example, investment grade corporates and high yield). A portion of the fixed income allocation is expected to be invested in Treasury or other government-related issues, which will serve to reduce risk within the portfolio.

<u>Private Markets:</u> Private markets investments are non-traditional investments, not covered by another investment class. In general, private market investments are incorporated into the NHRS asset allocation to enhance the portfolio's risk-adjusted return (private equity/private credit) or to diversify volatility. While the risk associated with these types of investments is higher than that of other asset classes, the expected return is also higher.

- <u>Private Equity:</u> generates attractive risk-adjusted rates of return through investments in private companies and earns returns in excess of the public equity markets over the long-term. Private Equity sub asset classes include leveraged buyouts, venture capital, growth equity and special situations such as investment in general partner interests and industry sector funds, and include co-investments, secondaries and other customized strategies.
- <u>Private Credit</u>: investments will be made across the credit universe, seeking attractive risk-adjusted returns using a diverse set of strategies. Sub asset class strategies include direct lending, mezzanine finance, distressed and special situations, specialty finance, structured credit, real assets credit, real estate credit, and liquid credit.
- Infrastructure: refers to physical assets or facilities that are used to provide essential services or support economic activity, and which are privately owned and managed rather than publicly owned or operated. This category typically includes assets in sectors such as energy (e.g., power plants, renewable energy installations), transportation (e.g., toll roads, bridges, ports, airports), utilities (e.g., water, sewage, telecommunications), and social infrastructure (e.g., schools, hospitals, and housing projects). Private infrastructure investments often involve long-term capital commitments, offering the potential for stable, inflation-linked cash flows and diversification benefits within a broader investment portfolio.
- <u>Real Estate:</u> The investment in real estate will serve as an inflation hedge, return enhancement opportunity, income generator, and diversification source and will include investments within core, value-added, and opportunistic opportunities.

The actual asset class allocation of the Fund will be continuously reviewed by the Investment Team relative to the asset class policy targets. Market movements or cash flow requirements may require the actual allocations in the portfolio to deviate from the target allocations. The Team shall seek to maintain the Fund's actual asset allocation within allocation ranges at all times. When rebalancing is required, the team will develop a rebalancing plan that, when possible, minimizes transaction costs. The plan will identify whether the assets will be rebalanced to a point within the allowable range, or to the allocation target. The Team will give due consideration to market environments, costs and risks of implementation, potential impacts on manager-level performance, and other relevant factors. The Team will report to the IIC and the Board regarding rebalancing activities that have occurred.

#### VII. Equity Investment in Another Entity

When the System makes an equity investment in another entity, the underlying assets of such other entity will be deemed "assets" of the System for purposes of Section 100-A15, I-b of the RSA except with respect to investments in the following entities:

- (a) Publicly-offered securities
- (b) An investment company registered under the Investment Company Act of 1940
- (c) A Company primarily engaged, either directly or through majority-owned subsidiaries, in the production and/or sale of goods and/or services (other than the investment of capital) ("Operating Company")
- (d) A private equity fund whose primary objective is to invest in Operating Companies in which it has contractual rights to influence company management
- (e) A private investment fund whose primary objective is to invest in real estate with respect to which it has the right to participate directly in the development or management
- (f) A government mortgage pool guaranteed by the United States or an agency or instrumentality thereof
- (g) An investment fund or entity in which:

(1) (i) private U.S. employee benefit plans subject to Part 4 of Subtitle B of Title 1 of the Employee Retirement Income Security Act of 1974 ("ERISA Plans"), (ii) plans subject to Section 4975 of the Internal Revenue Code ("4975 Plans"), and (iii) other entities deemed under ERISA to hold assets of such

ERISA Plans and 4975 Plans (together with ERISA Plans and 4975 Plans, "Benefit Plan Investors"), hold less than 25% of any class of equity interests and

- (2) the System holds less than 25% of the total equity interests
- (h) An insurance company general account to the extent that the non-guaranteed policy portion of such account is less than 25% held by Benefit Plan Investors and less than 25% held by the System.

It is the intention of the Board that in settling any ambiguity regarding this section of policy, the Board shall look to available guidance under ERISA to settle such ambiguity.

#### VIII. Liquidity

Currently, each fiscal year, the member benefit payments paid by the System exceed the employer contributions received by the System. As a result, maintaining appropriate liquidity is critical to the System's operations and the System's ability to meet its financial obligations. The Team will be responsible for ensuring the System maintains the appropriate liquidity for the payment of member benefits, fund expenses and capital calls from its General Partners.

#### IX. Active and Passive Management

The IIC may implement the Board's approved asset allocation through the use of both passive and active management. The use of active and passive management is detailed in the guidelines for each asset class. The goal of passive management is to gain diversified exposure to the desired asset class while incurring minimal expense and seeking a performance return comparable to the asset class benchmark. The goal of active management is to exceed the performance of the appropriate index on a net-of-fees basis at a commensurate level of risk over a full market cycle.

#### X. Benchmarks

The following benchmarks represent the standards of measurement to be used for the various investment asset classes of the New Hampshire Retirement System as determined by the Board and IIC.

Asset Class	Benchmark
Global Equity	MSCI ACWI IMI (All Country World Index Investable Market Index)
Sub-asset class:	
Domestic Equity	Russell 3000 Index
Non-U.S Equity	MSCI ACWI ex USA IMI Index

Global Fixed Income	Bloomberg Barclays Capital U.S. Universal Bond Index
Private Markets:	
Private Equity	Russell 3000 Index + 2.0%
Private Credit	(50% S&P/LSTA U.S. Leveraged Loan 100 Index and 50% Bloomberg High Yield Index) + 1.0%
Infrastructure	Consumer Price Index + 4%
Real Estate	NCREIF NFI-ODCE Index (net of fees)
Cash Equivalents	Three-month Treasury Bill Index
Total Fund	Total Fund Custom Benchmark

The Total Fund Custom Benchmark is a weighted average return comprised of the respective asset class benchmarks in the same proportion as the target asset allocation.

As performance results may vary under different economic conditions and market cycles, an effective period for measuring performance would span three to five years or more. Performance returns are expected to meet or exceed the relevant benchmark on a net-of-fees basis over time.

The IIC has responsibility for identifying appropriate benchmarks for each investment in the Fund.

Definitions of the benchmarks are listed below:

- A. The <u>MSCI ACWI (All Country World Index) IMI</u> is a global equity benchmark that includes large, mid, and small-cap companies across 23 developed and 26 emerging markets. It is designed to represent the performance of global equity markets and provides broad diversification across regions and sectors.
- B. The <u>Russell 3000 Index</u> measures the performance of the largest 3,000 U.S. companies, representing approximately 98% of the investable U.S. equity market.
- C. The <u>MSCI ACWI ex USA (All Country World Index excluding the United States)</u> <u>IMI</u> is a global equity benchmark that includes large, mid, and small-cap companies across 23 developed markets and 26 emerging markets, excluding the United States. It is designed to represent the performance of global equity markets outside of the U.S. and provides broad diversification across regions and sectors.
- D. The Bloomberg <u>Barclays Capital U.S. Universal Index</u> represents the union of Bloomberg Barclays Capital's U.S. Aggregate Index (see below), U.S. Corporate High-Yield, Investment Grade 144A Index, Eurodollar Index, U.S. Emerging

Markets Index, and the non-ERISA eligible portion of the CMBS Index. The index covers USD-denominated, taxable bonds that are rated either investment grade or below investment grade.

- E. The Bloomberg <u>Barclays Capital U.S. Aggregate Index</u> is an unmanaged, market-value-weighted index of taxable investment-grade fixed-rate debt issues, including government, corporate, asset-backed and mortgage-backed securities, with maturities of one year or more.
- F. The <u>National Council of Real Estate Investment Fiduciaries (NCREIF) Fund</u> <u>Index Open-End Diversified Core (NFI-ODCE)</u> is a composite comprised of primarily Core open-end funds widely used by institutional investors for exposure to domestic private market real estate. An open-end fund is a large pool of properties held in a commingled fund structure where investors have redemption rights (typically quarterly right to make capital deposits or withdrawals). Because of quarterly purchase or redemption of fund shares, open-end funds have some of the best valuation disciplines in private market real estate. The funds report performance quarterly to NCREIF. Nearly all open-end funds are designed to be perpetual life vehicles, with many having history dating back to the 1970s.
- G. The <u>S&P/LSTA U.S. Leveraged Loan 100 Index</u> is a daily tradable index for the U.S. market that seeks to mirror the market-weighted performance of the largest institutional leverage loans. The constituents are drawn from a universe of syndicated leveraged loans representing over 90% of the leveraged loan market.
- H. The <u>Bloomberg High Yield Index</u> measures the USD-denominated, high-yield, fixed-rate corporate bond market. Securities are classified as high yield if the middle rating of Moody's, Fitch, and S&P is Ba1/BB+/BB+ or below. Consumer Price Index (CPI) measures the average change over time in the prices paid by urban consumers for a basket of goods and services. It is commonly used as a gauge of inflation and to assess changes in the cost of living. The CPI is a key economic indicator and is often used to adjust income and investment returns for inflation.
- I. The <u>Three-month Treasury bill</u> serves as a common benchmark for cash equivalents in an institutional portfolio due to its risk-free rate, backed by the full faith and credit of the US government, high liquidity, short-term maturity capturing current interest rate conditions, and widely published, accessible and transparent benchmark for performance comparison.

#### XI. Reporting to the Board

Pursuant to RSA 100-A:15, II-a, the IIC will report to the Board at least quarterly on the management, investment, and reinvestment activities of the IIC, and may delegate such reporting as it deems appropriate.

The quarterly report will include:

- A report on the investment performance of the assets of the System
- Changes, if any, in the investment managers of the System
- Changes, if any, in the investment guidelines for each of the asset classes
- Rebalancing activities, if any

Pursuant to RSA 100-A:15, VII, the IIC will prepare, for Board approval, a comprehensive annual investment report for the Board.

The annual report will include:

- A description of the IIC's philosophy for investing the assets of the System
- An analysis of the return on investment, by category
- An annual investment policy statement
- Any suggested changes in legislation which the Board may seek in order to better serve the members of the system

After Board approval, the comprehensive annual investment report is submitted to the president of the senate, the speaker of the house, and the governor.

The Investment Team, investment consultant(s), custodian bank, and other parties will also provide reporting to the Board as requested or needed.

#### XII. Manager Selection, Monitoring, and Termination

The IIC, with the assistance of the Investment Team and the investment consultant, will establish a process by which to select investment managers. Criteria for each manager search will be tailored to the search underway and NHRS' specific needs and requirements.

Examples of criteria include:

- Organizational stability
- Investment team, experience and tenure
- Investment process
- Ownership
- Fees
- Performance

Manager searches will be conducted in a fair and transparent manner. During a manager search, a "no contact policy" will be in effect. During this time, only the Investment Team members designated by the Chief Investment Officer will have any contact with potential candidates. Trustees, IIC members, and other team members will refrain from discussing the search with candidate firms or potential candidate firms. This policy does not preclude existing managers from carrying out their normal business requirements with NHRS.

The IIC has delegated selected manager monitoring efforts to the Team and the investment consultant. Any significant changes to a manager's investment philosophy, fees, personnel, ownership or organizational structure will be summarized and reported to the IIC. The IIC will receive quarterly and annual reporting regarding the performance of the investment managers within the fund.

The IIC has the right to terminate any investment manager at any time. Grounds for termination may include, but are not limited to:

- Changes in asset allocation that require re-structuring of the portfolio
- Failure to comply with investment management agreements
- Underperformance over the short to medium term, with consideration of long-term investment strategy and time horizon
- Significant process, organizational, ownership or personnel changes
- Unethical behavior
- Loss of confidence in the organization
- Unresponsiveness or inability to satisfy reporting requests

#### XIII. Private Markets Fund Advisory Board/Committee Participation

The primary purpose of a private markets fund advisory board/committee is to (1) provide "checks and balances" on the general partner's power and authority to operate the fund; and (2) act as a "sounding board" for matters where the interests of all the fund's partners may not be aligned.

The System has determined that the benefits of the Investment Team participating on advisory boards/committees far outweigh the risks or potential risks of not participating on advisory boards/committees. As a result, it is appropriate for the CIO or designated team member to represent the System as a member of an advisory board/committee, with the approval of the IIC and provided that there are appropriate protections for such members (e.g., with respect to fiduciary duty/standard of care, indemnification, confidentiality, etc.).

#### XIV. Use of Derivatives

Derivatives may only be used to modify risk/return characteristics of the portfolio, implement asset allocation changes in a cost-effective manner, or reduce transaction costs or taxes. Derivatives may not be used for speculation or leverage (borrowing).

Contracts with separate account managers will identify the types of derivatives that may be used, consistent with this Manual and prudent discretion. Managers must notify the CIO of modifications in the types of derivatives used and obtain the CIO's approval of

such modifications. The System's Non-U.S. Equity managers generally have authorization for broader use of derivatives; however, their actions will be monitored for excessive risk.

Investments in commingled funds are open to other investors; therefore, it is not possible for the System to insist that the managers of such funds abide by System policy regarding the use of derivatives; however, their actions will be monitored for excessive risk. The CIO will monitor a manager's use of derivatives on an ongoing basis to determine whether continued investment in a fund is prudent.

#### XV. Prohibited Transactions

The following transactions will be prohibited unless stated otherwise in the investment manager guidelines:

- "Prohibited transactions" as defined under the Employee Retirement Income Security Act of 1974 (ERISA).
- Transactions that involve a broker acting as a "principal", where such broker is also the investment manager who is making the transaction.
- Any or all investment activities forbidden by SEC or other applicable governing bodies.

The exposure for options, when permitted by contract, must be based on an appropriate options pricing model.

#### XVI. Review of Investment Policy

The IIC will review the investment policy at least annually to ensure it remains appropriate and to determine whether any modifications are needed and make a recommendation to the Board for changes, if any, to the investment policy. The Board will review the recommendations of the IIC regarding the investment policy and review the policy at least annually.

#### XVII. Glossary of Common Investment Terms

Investment in any particular instrument or security remains subject to applicable law and circumstances then prevailing. Notwithstanding, the most common investments are cited below:

A. <u>Private Markets Investments</u> are investable assets that fall outside traditional investments (stocks, bonds, cash), and involve less liquid and more specialized strategies (e.g. private equity / private credit and other private markets strategies)

- B. <u>American Depositary Receipts (ADRs)</u> are receipts for the shares of a foreignbased corporation held in the vault of a U.S. bank and entitling the shareholder to all dividends and capital gains. These are traded on various U.S.-based exchanges and are available for hundreds of stocks from numerous countries.
- C. <u>Commercial Mortgage-Backed Securities (CMBS)</u> are multi-class bonds backed by pools of commercial mortgages.
- D. <u>Commercial Mortgage Lending</u> investments are notes and bonds secured by a mortgage or deed of trust providing first lien on real estate.
- E. <u>Derivatives</u> are financial instruments such as forwards, futures, options, or other instruments whose values are "derived" from another financial instrument.
- F. <u>Domestic Equity Securities</u> for System purposes typically consist of corporate common stock. These stocks must be registered on a national securities exchange or must be otherwise registered as provided in the Securities Exchange Act of 1934 as amended, with price quotations furnished through a nationwide automated quotations system approved by the National Association of Securities Dealers, Inc. (NASD). Domestic Equity Securities also include stock in corporate real estate investment trusts (REITs), which are traded on a national exchange and acquired as part of an index fund or by one of the System's domestic equity managers.
- G. <u>Domestic Fixed Income Securities</u> are U.S. Treasury or Government agency obligations; equipment trust certificates; corporate, industrial, or utility bonds; U.S. dollar denominated Euro or Yankee bonds, including Canadian obligations payable in U.S. dollars; residential and commercial mortgage-backed securities; and pass-through certificates. For System purposes, Domestic Fixed Income Securities primarily consist of instruments with maturities in excess of twelve (12) months at time of purchase.
- H. <u>Emerging Market Equities</u> are common or preferred stocks and investment shares which are registered on exchanges outside the U.S. Emerging market countries are the developing international countries which have a relatively low per capita Gross National Product. There is wide variety of economic, regulatory, and market development among the emerging countries.
- Equity Real Estate Investments are any investments in real property, either made directly or through the use of pooled vehicles such as limited partnerships, open or closed-end commingled funds, Real Estate Investment Trusts (REITs) including publicly traded REIT securities, and Real Estate Operating Companies (REOCs).

- J. <u>Non-U.S. Equity Securities</u> are common or preferred corporate stocks and investment trust shares. Only stocks registered on recognized exchanges outside the U.S. are to be considered Non-U.S. Equity Securities.
- K. <u>Real Estate Mezzanine Funds</u> are investments in funds or partnerships whose portfolios consist of junior loans secured by real estate or partnership interests in real estate ownership.
- L. <u>Repurchase Agreements</u> are agreements between a seller and a buyer, whereby the seller agrees to repurchase the securities at an agreed upon price and, usually, at a stated time.
- M. <u>Securities Lending</u> occurs when a lender transfers a security to a borrower for cash or non-cash collateral pursuant to an agreement to return the collateral for an identical security in the future.
- N. <u>Short Term Investments (Cash Equivalents)</u> include, but are not limited to, interest bearing or discount instruments such as money market funds; U.S. Treasury Bills; corporate-issued commercial paper; bank-issued Certificates of Deposit; bankers' acceptances; and fully collateralized repurchase agreements. For System purposes, short-term investments consist primarily of instruments maturing in twelve (12) months or less at time of purchase.

# New Hampshire Retirement System Accountability Matrix

#### Total Fund Investment Policy<sup>1</sup>

F	unction	Independent Investment Committee	Board	Chief Investment Officer and Investment Team	Legal Counsel	Investment Consultants	Actuary
1.	Establishing (and modifying when necessary) investment policy, which includes risk tolerances and investment objectives	Recommends 100-A:14-b, III; A:15, I-a(b) & VII(c)	Decides 100-A:15, I; I- a(b) & (c) & VII(c)	Provides advice/analysis		Provides advice/analysis	Provides input
2.	Establishing asset allocation targets and ranges	Recommends A:15, VII(c)(2)	Decides A:15, VII(c)(2)	Provides advice/analysis		Provides advice/analysis	Provides input
3.	Determining Investment Committee's philosophy for investing assets	Decides A:15, VII(a)	Reviews A:15, VII(a)	Provides advice/analysis			
4.	Rebalancing procedures	Decides A:15, I, II-a(b) & VII(c)(2)	Reviews A:15, I-a(c) & VII(c)(2)	Provides advice/analysis		Provides advice/analysis	
5.	Monitoring policy compliance	Reviews and assigns responsibility A:15, I-a(a)	Reviews A:15, I-a(a)	Oversees		Serves as a double check	
6.	Ensuring statutory compliance of investments parameters	Reviews quarterly A:15, I-a(a)	Reviews annually A:15, I-a(a)	Monitors compliance	Reviews for legal compliance	Abides by parameters	
7.	Monitoring Total Fund performance	Reviews and reports to the Board quarterly A:15, II-a(c)	Reviews quarterly IIC reports A:15, II-a(c)	Provides advice/analysis		Provides advice/analysis	
8.	Completing comprehensive annual investment report (as outlined in HB 1645)	Prepares A:15, VII	Approves A:15, VII	Provides assistance	Provides assistance	Provides assistance	Provides assistance

<sup>&</sup>lt;sup>1</sup> Items in red are responsibilities dictated by statute.

## Global Equity<sup>2</sup>

F	unction	Independent Investment Committee	Board	Chief Investment Officer and Investment Team	Legal Counsel	Investment Consultants
1.	Determining global equity asset class guidelines (active vs. passive, style, limitations, etc.)	Decides A:15, I-a(a)	Reviews A:15, I-a(a)	Provides advice/analysis		Provides advice/analysis
2.	Setting and reviewing domestic and international equity benchmarks	Decides A:15, I-a(a)	Reviews A:15, I-a(a)	Provides Advice/Analysis		Provides advice/analysis
3.	Determining number and types of managers for the asset class	Decides A:14-b, III; A:15, II- a(b)	Reviews A:15, I-a(a)	Provides advice/analysis		Provides advice/analysis
4.	Selecting external investment managers	<mark>Decides</mark> A:14-b, III; A:15, II- a(b)	Monitors A:15, I-a(a)	Recommends	Reviews contracts	Influences/ recommends
5.	Monitoring compliance with asset class strategy and guidelines	Reviews and assigns responsibility A:15, VII(c)(3)	Reviews A:15, I-a(a) & VII(c)(3)	Oversees		Serves as a double check
6.	Reviewing asset class performance	Reviews and reports to the Board quarterly A:15, II-a(c)	Reviews quarterly IIC reports A:15, II-a(c)	Provides advice/analysis		Provides advice/analysis
7.	Monitoring performance of external investment managers	Reviews on on- going basis A:14-b, III; A:15, VII(c)(3)	Reviews quarterly reports A:15, II-a(c)	Completes monitoring activities		Completes monitoring activities

<sup>&</sup>lt;sup>2</sup> Items in red are responsibilities dictated by statute.

#### Global Fixed Income<sup>3</sup>

F	unction	Independent Investment Committee	Board	Chief Investment Officer and Investment Team	Legal Counsel	Investment Consultants
1.	Determining global fixed income asset class guidelines (active vs. passive, style, limitations, etc.)	Decides A:15, I-a(a)	Reviews A:15, I-a(a)	Provides advice/analysis		Provides advice/analysis
2.	Setting and reviewing asset class benchmarks	Decides A:15, I-a(a)	Reviews A:15, I-a(a)	Recommends		Provides advice/analysis
3.	Determining number and types of managers for each asset class	Decides A:14-b, III; A:15, II-a(b)	Reviews A:15, I-a(a)	Provides advice/analysis		Provides advice/analysis
4.	Selecting external investment managers	Decides A:14-b, III; A:15, II-a(b)	Monitors A:15, I-a(a)	Recommends	Reviews contracts	Influences/ Recommends
5.	Monitoring compliance with asset class strategy and guidelines	Reviews and assigns responsibility A:15, VII(c)(3)	Reviews A:15, VII(c)(3)	Oversees		Serves as a double check
6.	Reviewing performance of asset classes	Reviews and reports to the Board quarterly A:15, II-a(c)	Reviews quarterly IIC reports A:15, II-a(c)	Provides advice/analysis		Provides advice/analysis
7.	Monitoring performance of external investment managers	Reviews on on- going basis A:14-b, III; A:15, VII(c)(3)	Reviews quarterly reports A:15, II-a(c)	Completes monitoring activities		Completes monitoring activities

<sup>&</sup>lt;sup>3</sup> Items in red are responsibilities dictated by statute.

#### Real Estate <sup>4</sup>

F	unction	Independent Investment Committee	Board	Chief Investment Officer and Investment Team		Investment Consultants
1.	Determining real estate asset class guidelines (diversification, style, limitations, etc.)	Decides A:15, I-a(a)	Reviews A:15, I-a(a)	Provides advice/analysis		Provides advice/analysis
2.	Setting and reviewing asset class benchmarks	Decides A:14-b, III; A:15, VII	Reviews A:15, VII	Provides advice/analysis		Provides advice/analysis
3.	Determining number and types of managers for the asset class	Decides A:14-b, III; A:15, II-a(b)	Reviews A:15, I-a(a)	Provides advice/analysis		Provides advice/analysis
4.	Selecting external investment management firms	Decides A:14-b, III; A:15, II-a(b)	Monitors A:15, I-a(a)	Recommends	Reviews contracts	Influences
5.	Monitoring compliance with policy	Reviews and assigns responsibility	Reviews A:15, I-a(a)	Oversees		Serves as a double check
6.	Reviewing performance of the asset class	Reviews and reports to the Board quarterly A:15, II-a(c)	Reviews quarterly IIC reports A:15, II-a(c)	Provides advice/analysis		Provides advice/analysis
7.	Monitoring performance of external investment managers	Reviews on on- going basis A:14-b, III; A:15, VII(c)(3)	Reviews quarterly reports A:15, II-a(c)	Completes monitoring activities		Completes monitoring activities
8.	Valuation of real estate	Reviews quarterly A:15, I-a(b)(3); A:15, VII(c)(3)	Monitors A:15, I-a(a)	Ensures valuations are completed		Assists as needed
9.	Executing purchase and sale agreements on real estate	Reviews quarterly A:15, II-a(b) & VII(c)(3)		Ensures valuations are completed	Reviews contracts	

<sup>4</sup> Items in red are responsibilities dictated by statute.

#### Private Markets Policy<sup>5</sup>

	Private Markets Policy <sup>®</sup>	Independent Investment		Chief Investment Officer and		Investment
F	unction	Committee	Board	Investment Team	Legal Counsel	Consultants
1.	Determining private markets class guidelines (style, diversification, limitations, etc.)	Decides A:15, I-a(a)	Reviews A:15, I-a(a)	Provides advice/analysis		Provides advice/analysis
2.	Setting and reviewing asset class benchmarks	Decides A:14-b, III; A:15, VII	Reviews A:15, VII	Provides advice/analysis		Provides advice/analysis
3.	Approving number and types of external managers	Decides A:14-b, III; A:15, II- a(b)	Monitors A:15, I-a(a)	Provides advice/analysis		Provides advice/analysis
4.	Selecting external investment management firms	Decides A:14-b, III; A:15, II-a(b)	Monitors A:15, I-a(a)	Recommends	Reviews contracts	Influences
5.	Monitoring compliance with policy	Reviews and assigns responsibility A:15, VII(c)(3)	Reviews A:15, I-a(a)	Oversees		Serves as a double check
6.	Reviewing performance of the asset class	Reviews and reports to the Board quarterly A:15, II-a(c)	Reviews quarterly IIC reports A:15, II-a(c)	Provides advice/analysis		Provides advice/analysis
7.	Monitoring performance of external investment managers	Reviews on on- going basis A:14-b, III; A:15, VII(c)(3)	Reviews quarterly reports A:15, II-a(c)	Completes monitoring activities		Completes monitoring activities
8.	Valuation of private equity	Reviews quarterly A:15, I-a(b)(3); A:15, VII(c)(3)		Ensures valuations are completed		Assists as needed
9.	Executing partnership agreements on private equity	Reviews quarterly A:14-b, III; A:15, II-a(b)		Ensures agreements are executed	Reviews agreements	

#### Selection and Monitoring of Investment Managers<sup>6</sup>

F	unction	Investment Committee		Chief Investment Officer and Investment Team	Legal Counsel	Investment Consultants
1.	Selecting specific external investment management firms	Decides A:14-b, III; A:15, II-a(b)	Monitors A:15, I-a(a)	Recommends	Reviews contracts	Influences
2.	Conducting due diligence meetings and activities	Reviews staff/consultants A:15, I-a(a); A:15, VII(c)(3); A:15, (c)(3)		Completes investment manager due diligence		Completes independent due diligence activities
3.	Developing individual manager guidelines			Recommends	Reviews	Provides advice/analysis
4.	Executing investment manager contracts			Approves	Conducts legal diligence	Provides assistance
5.	Monitoring performance of external investment managers	Reviews on on-going basis A:14-b, III; A:15, VII(c)(3)	Reviews quarterly reports A:15, II-a(c)	Completes monitoring activities	<i>y</i>	Completes monitoring activities

<sup>6</sup> Items in red are responsibilities dictated by statute.

#### Selection of Other Service Providers<sup>7</sup>

F	unction	Independent Investment Committee	Board	Chief Investment Officer and Investment Team	Legal Counsel	Investment Consultant
1.	Selecting (and periodically reviewing) custodian banks	Decides A:15, II-a(a)	Monitors A:15, I-a(a)	Influences	Reviews contract	Influences
2.	Selecting (and periodically reviewing) general investment consultant	Recommends A:14-b, III	Decides A:15, II(c)	Provides input	Reviews contract	
3.	Selecting (and periodically reviewing) specialty investment consultants	Recommends A:14-b, III	Decides A:15, II(c)	Provides input	Reviews contract	
4.	Selecting (and periodically reviewing) the fund's actuary		Decides A:15, II(a)	Influences	Reviews contract	
5.	Selecting (and periodically reviewing) outside legal counsel for investment issues		Decides A:15, IV	Influences	Recommends	
6.	Selecting (and periodically reviewing) proxy voting service provider		Approves A:15, I-a(a)	Recommends	Oversees/Recom mends/Reviews Contract	Influences
7.	Selecting (and periodically reviewing) transition managers	Decides A:14-b, III; A:15, II-a(b)	Reviews A:15, I-a(a)	Recommends	Reviews contract	Influences
8.	Selecting (and periodically reviewing) transaction analysis provider	Decides A:15, II-a(b)	Reviews A:15, I-a(a)	Recommends	Reviews contract	Influences

<sup>7</sup> Items in red are responsibilities dictated by statute.

#### Proxy Voting

	Function	Investment Committee	Board	Executive Director or Chief Investment Officer	Legal Counsel	Investment Consultant
1.	Setting (and modifying) proxy voting policy		Decides A:15, I-a(a)	Recommends	Provides input	Provides advice/analysis
2.	Identifying proxy voting issues and positions		Decides A:15, I-a(a)	Provides advice/analysis	Provides input	Provides advice/analysis
3.	Monitoring proxy voting activity		Reviews annually A:15, I-a(a)	Prepares		
4.	Approving exceptions to the policy		Reviews annually A:15, I-a(a)	Oversees/ recommends	Provides input	Provides advice/analysis
5.	Ensuring policy compliance		Reviews annually A:15, I-a(a)	Oversees	Provides input	Provides advice/analysis

#### Securities Lending

	Function	Investment Committee	Board	Executive Director or Chief Investment Officer	Legal Counsel	Investment Consultant
1	. Setting (and modifying) securities lending policy	Provides Input A:15, I-a(a)	Decides A:15, I-a(a)	Provides advice/analysis	Provides input	Provides advice/analysis
2	<ol> <li>Creating and updating securities lending guidelines</li> </ol>	Approves A:15, I-a(a)	Reviews A:15, I-a(a)	Recommends	Provides input	Provides advice/analysis
3	<ol> <li>Monitoring securities lending activity</li> </ol>	Reviews and assigns responsibility A:15, I-a(a)	Reviews A:15, I-a(a)	Oversees	Provides input	Provides advice/analysis
4	Ensuring policy compliance	Reviews and assigns responsibility A:15, I-a(a)	Reviews A:15, I-a(a)	Oversees	Provides input	Provides advice/analysis

### **Global Equity Investment Guidelines**

**Purpose**: The Global Equity allocation provides the assets of the System with broad participation in global equity markets, including both domestic and international equities. This diversified allocation, across various styles, capitalizations, and geographies, aims to maximize long-term total returns while mitigating risk through geographical and sector diversification.

**Allocation**: The target allocation to Global Equity is 40% of the Total Fund, with an allowable range of 30 – 50%.

**Structure**: The Global Equity portfolio is structured to incorporate both active and passive management strategies. Active management is utilized where there is the greatest potential for alpha generation, while passive management is employed in regions or sectors where alpha generation is difficult to obtain, focusing instead on low-cost, efficient beta exposure. The portfolio is diversified across styles, capitalizations, and geographies, with a focus on areas where active management is expected to add value. Global Equity will encompass the Domestic Equity asset class and the Non-US Equity asset class.

Domestic Equity: The Domestic Equity portion is primarily managed with both active and passive strategies, with a minimum of 50% allocated to passive, large-cap equity securities domiciled in the US.

Non-U.S. Equity: The Non-U.S. Equity portion is predominantly actively managed and diversified across global markets, including developed and emerging markets excluding the US. Passive management may be used if determined to be beneficial by Investment Team and the Independent Investment Committee (IIC).

**Custody**: All Global Equity securities, including both Domestic and Non-U.S. equities, shall be maintained in the custody and safekeeping of the System's master custodian bank. Commingled fund assets may be held in custody at the discretion of the fund manager.

**Use of Commingled Funds:** Mutual funds and other types of commingled investment vehicles provide, under some circumstances, lower costs and better diversification than can be obtained with a separately managed account pursuing the same investment objectives. However, commingled investment funds cannot customize investment guidelines to the specific needs of individual clients. The Independent Investment Committee (IIC) is willing to accept the policies of such funds in order to achieve the lower costs and diversification benefits of commingled funds, as long as the commingled guidelines are consistent with the spirit of those specified herein and the underlying individual investment manager portfolio-level guidelines. The IIC relies on the Investment Team and the Investment Consultant to assess and monitor the investment policies of any commingled fund used by the System.

**Manager Guidelines for Separate Accounts**: Portfolio-level guidelines are negotiated with each IIC-approved investment manager with the purpose of establishing agreed-upon parameters for the management of assets. These guidelines are generally based on the guidelines for the respective manager's composite portfolio and investment style; are reviewed by the Team in collaboration with the System's Investment Consultant; and are subject to execution by the Chief Investment Officer and the manager prior to implementation. Each manager will be granted full discretion within the context of their respective portfolio-level negotiated guidelines.

Managers are prohibited from deviating from their respective portfolio-level guidelines without prior written approval from the Chief Investment Officer. Any guideline violation must be reported by the manager in writing as soon as it is discovered (within 24 hours). Recommendations for guideline revisions are to be provided to the Chief Investment Officer in writing, and shall include the rationale for the changes and all relevant research. Any guideline revision requests are reviewed by the Chief Investment Officer in consultation with the System's Investment Consultant prior to approval. All substantive changes to manager guidelines will be reported to the IIC at the next meeting.

**Permissible Investments**: All eligible securities shall be traded in domestic markets and be of a class listed on a national securities exchange or traded in the over-the-counter market.

Permissible investments are defined within individual manager portfolio-level guidelines, and generally include:

- Common stocks, preferred stocks, and securities with equity characteristics (including, but not limited to, American Depository Receipts and Shares, warrants, and rights) of U.S. and foreign issuers
- European Depository Receipts listed and traded on major U.S. exchanges and in overthe-counter markets
- Securities convertible into common stocks
- 144A securities
- Futures contracts
- Exchange traded funds and similar vehicles
- Closed-end funds
- Private placements, Secondary Offerings, IPO investments and offers for sale
- Real Estate Investment Trusts and Income Trusts
- Short-term fixed income securities and cash equivalents

**Prohibited Investments**: Any security or strategy not specifically permitted in the respective manager portfolio guidelines requires written permission from the Chief Investment Officer prior to purchase.

Prohibited investments are defined within individual manager portfolio-level guidelines, and generally include:

- Short sales
- Margin transactions
- Use of leverage
- Stock in non-public corporations, private placements or other non-marketable issues
- Specialized investment vehicles
- Direct investments in commodities
- Direct investments in real estate
- Direct investments in Venture Capital
- Lettered stock
- Foreign securities other than those noted in *Permissible Investments* above
- Direct investments in oil, gas, or other mineral exploration or development programs
- Concentration Limits: The System shall closely monitor instances where its investments represent a significant component of a commingled fund or total assets under management (AUM) at the strategy level. If the System's positions become more than 20% of any commingled investment fund, or total strategy AUM, Investment Team will notify the IIC and the investment will be monitored to see if any changes are warranted.

### **Global Fixed Income Investment Guidelines**

**Purpose**: The allocation to Global Fixed Income serves to provide income and potentially reduce volatility experienced in the equity markets, as well as offer an opportunity for return enhancement by investing in selected global debt sectors (for example, investment grade corporate bonds and high yield debt). A portion of the Global Fixed Income allocation is expected to be invested in U.S. Treasury securities or other government-related issues, which will potentially reduce risk within the portfolio.

**Allocation**: The current target allocation to Global Fixed Income is 25% of the Total Fund, with an allowable range of 18% - 32%.

**Structure**: The Global Fixed Income portfolio is currently 100% actively managed, as fixed income has been identified as an area in the capital markets where it is more likely that active management will add value. The portfolio is broadly diversified across global markets, sectors, securities and maturities. Active management is focused where there is the greatest potential for alpha generation. Passive management is focused where alpha generation has been demonstrated to be difficult to obtain while also allowing the ability to gain low-cost efficient beta exposure. Passive management may be utilized if determined to be beneficial by the Independent Investment Committee (IIC).

Allocation
Target*
Minimum of 60%

\* As a percentage of Global Fixed Income.

The Global Fixed Income Core component is defined as securities held within the Bloomberg Barclays U.S. Aggregate Index which measures the investment grade, U.S. dollar-denominated, fixed-rate taxable bond market. The index includes U.S. Treasuries, government-related and corporate securities, mortgage backed securities, asset backed securities, and commercial mortgage backed securities. TIPS, 144a securities with registration rights and permanent 144a securities are also permitted.

**Custody**: All Global Fixed Income securities shall be maintained in the custody and safekeeping of the System's master custodial bank. Commingled fund assets, however, are held in custody at the discretion of the fund manager.

**Use of Commingled Funds:** Mutual funds and other types of commingled investment vehicles provide, under some circumstances, lower costs and better diversification than can be obtained with a separately managed account pursuing the same investment objectives. However, commingled investment funds cannot customize investment guidelines to the specific needs of individual clients. The IIC is willing to accept the policies of such funds in order to achieve the lower costs and diversification benefits of commingled funds, as long as the commingled guidelines are consistent with the spirit of those specified herein and the underlying individual investment manager portfolio-level

guidelines. The IIC relies on the Team and the Investment Consultant to assess and monitor the investment policies of any commingled fund used by the System.

**Manager Guidelines for Separate Accounts**: Portfolio-level guidelines are negotiated with each IIC-approved investment manager with the purpose of establishing agreed-upon parameters for the management of assets. These guidelines are generally based on the guidelines for the respective manager's composite portfolio and investment style; are reviewed by the Team in collaboration with the System's Investment Consultant; and are subject to execution by the Chief Investment Officer and the manager prior to implementation. Each manager will be granted full discretion within the context of their respective portfolio-level negotiated guidelines.

Managers are prohibited from deviating from their respective portfolio-level guidelines without prior written approval from the Chief Investment Officer. Any guideline violation must be reported by the manager in writing as soon as it is discovered (within 24 hours). Recommendations for guideline revisions are to be provided to the Chief Investment Officer in writing, and shall include the rationale for the changes and all relevant research. Any guideline revision requests are reviewed by the Team and the System's Investment Consultant prior to approval. All substantive changes to manager guidelines will be reported to the IIC at the next meeting.

**Permissible Investments**: Permissible investments are defined within individual manager portfolio-level guidelines, and generally include:

- U.S. Treasuries and U.S. Treasury Inflation Protected Securities
- Obligations of U.S. Federal Agencies and Government Sponsored Enterprises (GSEs)
- Foreign Sovereign Debt
- Small Business Administration Securities
- Municipal Securities
- Corporate Obligations, including but not limited to, Convertible Bonds
- Foreign Sovereign Debt
- Structured Securities including Asset Backed Securities; Collateralized Mortgage Obligations; Commercial Mortgage Backed Securities; Residential Mortgage Backed Securities
- Zero Coupon Securities
- Non-Sovereign Government/Non-Supranational Debt
- Emerging Market Debt
- Forward exchange contracts/currency derivatives, when used to protect the U.S. Dollar value of the portfolio, dampen portfolio volatility, or to facilitate the settlement of securities
- Private Placements, including 144A securities
- Exchange traded funds and similar vehicles
- Common Stock (shall not exceed 5% of the market value of any individual manager)
- Preferred Stock (shall not exceed 20% of the market value of any individual manager)

2

Capital Securities

- Trust Preferred Securities
- Real Estate Investment Trust debt
- Short-term fixed income securities and cash equivalents

**Prohibited Investments**: Any security or strategy not specifically permitted in the respective manager portfolio guidelines requires written permission from the Chief Investment Officer prior to purchase.

Prohibited investments are defined within individual manager portfolio-level guidelines, and generally include:

- Short Sales
- Margin transactions
- Use of leverage
- Specialized investment vehicles
- Direct investments in commodities
- Direct investments in real estate
- Direct investments in Venture Capital
- Direct investments in oil, gas, or other mineral exploration or development programs

#### **Concentration Limits:**

 The System shall closely monitor instances where its investments represent a significant component of a commingled fund or total assets under management (AUM) at the strategy level. If the System's positions become more than 20% of any commingled investment fund, or total strategy AUM, the Team will notify the IIC and the investment will be monitored to see if any changes are warranted.

## Private Markets Guidelines

**Purpose**: Private markets investments or alternative investments represent nontraditional vehicles that do not fit within conventional investment asset classes. These investments aim primarily to achieve superior risk-adjusted returns. They may also exhibit a low correlation with broader stock and bond market returns, potentially reducing the volatility of the plan's total returns. Examples of private markets investments encompass private equity, private credit, real estate, infrastructure, hedge funds, and opportunistic strategies.

Due to their non-traditional, long-term, and illiquid nature, private markets investments necessitate the development of an Annual Strategic Plan. This plan will be prepared and presented to the Independent Investment Committee (IIC) for approval.

**Allocation**: The current target allocation to Private Markets Investments is 25% of the Total Fund, with an allowable range of 15 - 35%.

In order to reach and maintain the target allocation, capital commitments in excess of 25% of the Total Fund may be made. The primary reasons for permitting such an over commitment are the staged capital calls for new investments and anticipated returns of capital.

### Targets:

Sub Strategy	Allocation Target*
Private Equity	10%
Private Credit	10%
Infrastructure	5%
* As a paraantage of Total Fund	

\* As a percentage of Total Fund

**Custody:** All assets are held in custody at the discretion of the fund manager.

**Structure**: The Private Markets portfolio primarily includes the following:

Private Equity – The purpose of Private Equity is to earn risk-adjusted returns in excess of public equity markets. These investments are also expected to decrease the volatility of the System's assets through the diversification benefits of having lower correlations with other asset classes.

Sub-strategies include:

 Buyouts/Corporate Finance – Provides leveraged capital and business development capital to enable the restructuring of existing business and industries.

- Private Energy Investments may include exploration & production, generation, storage, transmission, distribution, renewable energy sources, clean technologies, energy technologies and other similar investments.
- Growth Equity Provides expansion capital for small, growing businesses that are generating cash flow and profits. Generally, these types of investments have reduced exposure to technology risk compared with venture capital.
- Secondaries Private equity interests that are generally purchased at a discount from valuation from motivated sellers. The interests purchased are generally venture and buyout interests with limited exposure to unfunded capital commitments. The strategy also includes the purchase of direct interests in companies through the secondary market.
- Distressed/Special Situations A strategy whereby a manager invests in the distressed debt of companies that likely will undergo some sort of financial and/or operational restructuring. A manager will usually build a controlling stake in a distressed company through the "fulcrum security" which is generally a high yield bond or bank debt. The investment team will then work actively to maximize the value of the investment through driving either an informal restructuring or a formal bankruptcy procedure. The balance sheet may be restructured; new management inserted; cost cutting implemented; as well as other operational improvements put in place. Distressed debt returns are generally comprised of a combination of a debt coupon; capital appreciation of the distressed security; and, participation in the upside of post-reorganization equity.
- Venture Capital Implies early, late and balanced-stages of financing, as well as growth capital, of rapidly growing companies with an innovative/disruptive business idea for a proprietary product or service.

Private Credit - diversify the portfolio and aim to generate higher risk-adjusted returns compared to public credit markets. These investments focus on opportunities in private lending, providing stable income and reducing overall portfolio volatility. They complement traditional fixed income investments by offering lower correlation with public markets and potential for attractive yields. Our strategy aims to preserve capital, generate income sustainably, and enhance overall portfolio performance over the long term.

Sub-strategies include:

- Direct Lending An investment strategy involving senior or unitranche lending directly to companies that seek to generate high current income while focusing on preservation of capital.
- Distressed Includes trading strategies through control positions. For trading strategies, distressed securities are defined as securities experiencing financial or operational distress, default, or are under bankruptcy. Investment instruments

include publicly-traded debt securities, private debt, trade claims, mortgage debt, common and preferred stock and commercial paper. Control strategies involve companies with poorly-organized capital structures, turnaround situations and bankrupt companies. Long and short positions are commonly used as a technique to lock in profit or reduce risk.

- Mezzanine/Junior Capital An investment strategy involving subordinated debt (the level of financing tranche that is senior to equity but below senior debt). Capital supplied by mezzanine or junior capital financing is used for various situations such as facilitating changes in ownership through leveraged buyouts or recapitalizations, financing acquisitions, or enabling growth. Venture lending and leasing is a subset of mezzanine financing that targets venture-backed companies. Revenue and Royalty interests are a subset of mezzanine financing that targets intellectual property, license agreements and other similar property that has the ability to restrict the rights to commercialization.
- Asset-Based Lending providing loans that are secured by a borrower's tangible assets, such as accounts receivable, inventory, equipment, or real estate. This strategy focuses on lending to companies that may not have access to traditional credit markets but possess valuable physical assets that can be used as collateral. ABL investments are typically structured as revolving credit facilities or term loans, and are primarily used to finance working capital needs, acquisitions, or other corporate requirements.
- Structured Credit A private credit strategy which, involves investing in complex financial instruments that are typically collateralized by a pool of assets, such as collateralized loan obligations (CLOs), collateralized debt obligations (CDOs), or asset-backed securities (ABS).Returns are driven by a combination of underlying loan coupon; value enhancement through servicing; and, upside through public market securitization.
- Specialty Finance A private credit strategy which generally provides growth capital in the form of senior secured loans to loan origination platforms such as mortgage; consumer debt and transportation leasing. These loans are securitized by a pool of underlying loans which are placed in a bankruptcy remote structure and pay amortize over time. Specialty finance lenders' returns are generated by a combination of a coupon and, in some cases, equity kickers in the underlying borrower. These loan pools may be securitized and sold into the public market.
- Litigation Finance A private credit strategy which lends money to corporations or law firms to fund the cost of prolonged litigation, often contingent on a favorable payout. Financings may be pre-settlement in which returns are driven by a combination of a debt coupon and upside participation in one, or a diversified pool of legal cases. Litigation funding in the form of a loan may also be provided post a legal settlement. This this type of funding is used to bridge a payment expected by the law firm or other entity entitled to litigation proceeds.

 Real Asset Lending – Private asset-backed loans including backed by real asset collateral such as real estate and infrastructure. Real Assets credit investments may include senior debt or project finance loans, often with long-term, stable cash flows.

**Risk Management:** Private Markets strategies do not lend themselves to traditional quantitative measures of risk such as standard deviation and benchmark tracking error. Rather, risk is managed through a combination of quantitative and qualitative constraints. The following sections identify the unique risks with private markets investments and method of control:

- Industry Typically, private markets funds are permitted to invest in a wide variety of industries with limited controls. Industry risk is controlled primarily through appropriate diversification across strategies and sub-strategies.
- Leverage Many underlying private markets programs will utilize leverage. The intent of the System is to not rely on managers employing high degrees of leverage.
- Vintage Year Vintage year reflects the year of first capital draw and vintage risk refers to the variability of investment commitments over time. A long-term investment pacing schedule is developed which minimizes vintage risk while achieving targeted exposure.
- Concentration Limits The System shall not own more than 10% of any single investment vehicle except with prior approval of the NHRS IIC.
- Due Diligence Each potential investment will be evaluated for portfolio fit; organizational stability; investment staff; investment strategy; investment process; and fund economics.
- Annual Strategic Plan Given the non-traditional, long-term and illiquid nature of private markets investments, an Annual Strategic Plan will be prepared and presented to the IIC for approval. The Annual Strategic Plan will include a review of performance; cash flow and liquidity analyses; commitment pacing; and substrategy recommendations.

**Purpose**: The allocation to Infrastructure serves to provide diversification to the overall plan as well as offer the opportunity to generate superior risk-adjusted returns through income and capital appreciation. This allocation is expected to have a lower overall correlation with other asset classes, thus potentially reducing the volatility of the return of the Total Fund. Moreover, like real estate assets, infrastructure investments may serve as an inflation hedge.

**Allocation**: The target allocation to Infrastructure is 5% of the Total Fund per the strategic asset allocation, with an allowable range of 0 - 10%.

During the initial investment period the portfolio is likely to be below the 5% target as infrastructure funds often require several years to identify and acquire assets.

To achieve and maintain the target allocation, capital commitments in excess of 5% of the Total Fund may be made. An annual pacing pace will be approved by the Independent Investment Committee (IIC). This flexibility in over-commitment is designed to accommodate the nature of capital calls, offering periods, and the anticipated return of capital.

**Structure**: The Infrastructure portfolio seeks to be broadly diversified and consists of two strategy segments: Core and Non-Core, defined below.

<u>Core Infrastructure:</u> Core Infrastructure are typically investments which produce stable, long-lived current income through assets with operating history and high level of contracted revenues with no capital appreciation. Core infrastructure assets generally have been operationally de-risked, with fixed pricing through long-term contracts and contractual inflation escalation. Core investments are typically located in developed markets, which infrastructure managers commonly refer to as the Organization for Economic Co-operation and Development ("OECD") markets; member countries represent approximately 80% of world trade. Core investments offer relatively high current income returns, and as a result, a greater predictability of total returns under normal market conditions. The income component typically represents a significant component of the expected total return.

<u>Core Plus:</u> Core Plus Infrastructure investments are expected to have low to moderate levels of capital appreciation through improvements, repairs, or expansion with little to no construction risk. Core Plus investments will have a higher exposure to fluctuations in demand compared to Core assets, with features that will limit overall risk (e.g., long-term contracts, regulatory price support, etc.). Core Plus assets are typically found in OECD markets, although may include investments in non-OECD countries. Core Plus infrastructure will yield exposure primarily to current income with some capital

appreciation exposure through higher operational or structural complexity.

Non-Core Infrastructure includes Value-Add and Opportunistic strategies, which are accessed through closed-end funds.

<u>Value-Add Infrastructure:</u> Value-Add Infrastructure investments are expected to have moderate levels of capital appreciation through improvements, repairs, or expansion with little to no construction risk. Value-Add investments will exhibit higher operating risk with higher growth potential compared to Core strategies. Value-Add assets are typically found in OECD markets, although may include investments in non-OECD countries. Value Add infrastructure derives a higher share return from capital appreciation than current income, which is often re-invested into the infrastructure business.

<u>Opportunistic Infrastructure:</u> Opportunistic Infrastructure investments are assets with a high exposure to capital appreciation returns through development or construction. Opportunistic investments exhibit the highest risk-return profile, focusing on capital growth of the underlying asset and very little on stable cash flows, with no contracted revenues and higher exposure to market competition. Opportunistic investments can be found in both OECD and emerging markets. Opportunistic investments will attribute most of its returns to capital growth and appreciation.

Portfolio Composition	Lower Target	Upper Target	OECD	Non- OECD
Core / Core Plus Infrastructure	70%	100%		
Non-core Infrastructure	0%	30%		
Total Portfolio		100%	≥ 75%	≤ 25%

Target: 75% Core / Core Plus & 25% Non-core

Infrastructure sectors vary across three project stages or development stages that are analogous to risk profile:

- Secondary a fully operational asset or structure that has no further need for development investment, with fully developed operational cash flow and revenue.
- Brownfield an existing structure or asset that requires improvements, repairs or expansion, that is partially operational and may be generating income.
- Greenfield an asset that does not currently exist and needs to be designed and constructed, with uncertain demand, usage, price and development costs. Greenfield investments have no revenue generation prior to existence.

The infrastructure investment opportunity set can be broken into six sector groupings:

- Transportation includes toll roads, bridges, tunnels, airports, ports, rail and mass transit networks
- Energy and Power Generation includes both conventional and renewable power generation, storage and pipelines
- Utilities includes power utilities, water utilities, regulated transmission and distribution assets, water treatment and processing,
- Telecommunications includes fiber optics networks, broadcast and mobile towers, data centers and digital assets
- Energy transition includes electric vehicle charging infrastructure, smart metering, hydrogen, carbon capture, waste to energy, microgrids
- Social includes educational facilities, health care offices, courts, police stations, defense, judicial and community centers

**Implementation:** Investment vehicles for the infrastructure asset class will be made primarily through private open-end funds and closed-end commingled funds. Other structures such as fund of funds, fund-of-one mandates, or managed accounts by an advisor approved by the IIC may be considered. Additionally, investments may also include secondaries and co-investments alongside a general partner or a dedicated co-investment vehicle. Open-end funds will have defined investment and redemption provisions and/or limited partnerships will have fund expiration and extension provisions.

**Custody**: All assets are held in custody at the discretion of the general partner (investment manager) of the fund vehicle.

**Currency**: NHRS accepts the currency risks consistent with the geographic exposures of the infrastructure asset class. Infrastructure managers may or may not offer investment vehicles that are hedged back to United States Dollars (USD), but the Fund will not implement currency hedges. Where possible, the Fund will make investments in USD-hedged vehicles and receive distributions in USD.

**Benchmark**: The portfolio will initially benchmark performance against an absolute benchmark Consumer Price Index (CPI) + 400 bps and evaluate the universe of benchmarks as the asset class continues to evolve.

**Portfolio Construction**: Portfolio investments will be allocated across various factors to achieve the intended target. The attributes by which investments should be distributed or diversified to most effectively reduce risk are:

- 1) Sector
- 2) Geographic location
- 3) Manager allocation and investment size
- 4) Leverage

As such, within the infrastructure asset class allocation, the guidelines are as follows:

**Sector** - The portfolio will limit exposure to any single infrastructure sub-sector to avoid over-concentration. This strategy is designed to mitigate sector-specific risks and enhance the overall stability and resilience of the portfolio.

**Geographic Location** – Investments within the Infrastructure allocation will be distributed geographically for the purpose of attaining economic market diversification. OECD markets are expected to represent a minimum of 75% of the portfolio. Non-OECD markets may represent up to 25% of the portfolio.

**Manager Allocation and Investment Size** – Investments within the Infrastructure allocation will be diversified both by individual investment exposure and manager exposure, as the System does not want the failure of a single investment to have a significant or material impact on the performance of the overall asset class.

- No more than 50% of capital committed to any single investment manager
- No more than 50% of the non-OECD exposure to come from investments in emerging markets

**Leverage** – infrastructure investments will utilize leverage based on risk profile, with the amount of leverage related to the level and security of the asset's revenue streams. Core investments will usually have higher levels of leverage and Non-Core investments may have lower leverage levels. The intent for the asset class is to have a moderate level of leverage with respect to the overall portfolio exposure, typically at the fund level.

Permissible leverage: The total Program shall, in aggregate, utilize no more than 65% fund level leverage. Any single fund shall utilize no more than 75% leverage.

# Summary of Policy Limits

Policy Parameter	Policy Limit
Allocation to Infrastructure	5% of total plan assets; range of 0-10%.
Permissible Investments	Equity investments in infrastructure.
Investment Styles <ul> <li>Core / Core Plus</li> <li>Non-Core</li> </ul>	Core / Core Plus: Target: 70% to 100% Non-Core: Target 0% to 30%
Manager Exposure	No more than 50% of capital committed to any single investment manager
Infrastructure Sector Ranges <ul> <li>Communications / Data</li> <li>Power / Energy (including Renewables)</li> <li>Water / Wastewater</li> <li>Transportation</li> <li>Social</li> </ul>	The portfolio will limit exposure to any single infrastructure sub-sector to avoid over-concentration. This strategy is designed to mitigate sector-specific risks and enhance the overall stability and resilience of the portfolio.
Geographic Exposures Developed Markets / OECD Emerging Markets / Non-OECD	<ul> <li>The Fund aims to invest in a broadly diversified range of geographic markets, with a primary focus on major investable infrastructure markets within the OECD, specifically North America, Europe, and Australia. Investments in these regions will comprise at least 75% of the Fund's infrastructure allocation.</li> <li>Additionally, investments in emerging markets and/or non-OECD countries will be capped at a maximum of 25% of the Fund's infrastructure allocation.</li> </ul>
Leverage	<ul> <li>Underlying investment managers may use various forms of debt financing to execute their respective investment mandates. The use of leverage will be monitored for prudency and will maintain the following loan to value ratios.</li> <li>The total Program shall, in aggregate, utilize no more than 65% fund level leverage</li> <li>Any single fund shall utilize no more than 75% leverage</li> </ul>
Portfolio Buildout	During the initial investment period the portfolio is likely to be below the 5% target as infrastructure funds often require several years to identify and acquire assets.

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# New Hampshire Retirement System Investment Policy Amended by NHRS Board of Trustees on February 11, 2025June 14, 2022

### I. Introduction to the Investment Policy

The purpose of this Investment Policy is to:

- A. Fulfill the Board's and IIC's statutory duty to oversee the investments of NHRS in accordance with the basic fiduciary responsibilities. These duties include:
  - Managing the fund with the care, skill, prudence, and diligence under the circumstances then prevailing that a prudent person acting in a like capacity and familiar with these matters would use in the conduct of an enterprise of a like character with like objectives.
  - Making all decisions solely in the interest of, and for the exclusive purpose of providing benefits to the members, retirees, and their beneficiaries.
  - Defraying reasonable administrative expenses.
- B. Set forth the investment policies the Board and IIC judge to be appropriate, prudent and, in consideration of the Systems' needs, to comply with current laws and to direct the investment of the System's assets.
- C. Ensure appropriate flexibility within the investment process to allow for the System to participate in prudent investment opportunities while also establishing risk parameters within which the portfolio will operate.
- D. Establish criteria to evaluate the System's investment performance.
- E. Communicate investment policies, objectives, asset class guidelines, and performance criteria to the investment team staff, external investment managers/advisors, consultants, custodians, and all other interested parties.
- F. Serve as a review document to guide ongoing oversight of the System's investments for compliance with the laws of New Hampshire.

### **II. Responsible Parties and Their Duties**

Key parties that participate in the investment decision-making and oversight process for NHRS include the:

- Board of Trustees
- Independent Investment Committee (IIC)
- Investment StaffTeam (Team)
- Investment Consultants
- Investment Advisors
- Investment Managers
- Custodian Bank
- Proxy Voting Service Provider
- Investment Service Providers
- External Fund Counsel
- Internal Stakeholders:
  - o Finance & Accounting
  - <u>o Legal</u>
  - o Information Technology
  - ⊖ Public Relations
  - o <u>LegalCommunications</u>

#### **Board of Trustees:**

The Board sets investment policy in accordance with applicable State and Federal laws, hires the investment consultant(s), and sets policy for establishing and modifying investment objectives. The Board also has responsibility to review quarterly and annual reports from the IIC.

#### Independent Investment Committee:

The IIC prepares for the Board's review and approval an investment policy statement, including investment objectives, an expected rate of return the System is attempting to earn, asset allocation targets and ranges, and identification of appropriate benchmarks. The IIC has the full power to hold, purchase, sell, assign, transfer, and dispose of any securities and investments, as well as the proceeds of such investments, in accordance with the policy set by the Board. The IIC has the responsibility to establish asset class guidelines and for selecting, monitoring, and terminating investment managers. The IIC is responsible for reporting to the Board on a quarterly and annual basis as directed by the statute.

#### Investment <a>Staff</a>Team:

The NHRS <u>Investment\_staffInvestment Team</u>, led by the <u>Chief Investment Officer</u> (<u>CIO</u>)Director of Investments, is responsible for implementation of the investment decisions made by the Board of Trustees and/or the IIC. In general, the responsibilities of the <u>investment\_Investment staffTeam</u> include:

- Ensuring the asset allocation of the Fund is implemented in accordance with the policy approved by the Board, including rebalancing as necessary in accordance with the investment policy
- Monitoring policy and statutory compliance of the portfolio
- Assisting the IIC in developing investment policy recommendations to present to the Board for approval
- Monitoring investment managers and performing due diligence on new investment opportunities or managers as directed by the IIC
- Coordinating work with the investment consultant or any other investment-related service provider selected by the Board
- Conducting special research or analysis as directed by the Board, IIC, or <u>Director</u> of Investments-<u>CIO</u>
- Ensuring the Board and IIC receive appropriate reporting regarding the investment portfolio

# Investment Consultants:

The investment consultant will perform those services as described in its contract, <u>either</u> <u>general consulting or specific asset class consulting</u>. The investment consultant is hired by the <u>Board and</u> is expected to work cooperatively and collaboratively with the Board, the IIC, as well as the <u>investment Investment staffTeam</u>.

In general, the investment consultant's responsibilities may include:

- Providing advice on total plan asset allocation, or specific asset class guidance
- Assisting the Board, IIC, and staff <u>Team</u> with decision-making
- Providing reviews of investment policy, asset class structure, and investment manager <u>due diligence</u>
- Calculating performance
- Reporting and analyzing performance of the total portfolio, asset classes, and individual investment managers
- Performing research as needed
- Providing investment education to the Board, IIC and staffteam as requested
- Reporting quarterly to the Board on investment consultant contract fulfillment actions
- <u>Reports Reporting quarterly</u> to the Board quarterly on recommendations made to the IIC and the status of their recommendations.

# Investment Advisors:

The investment advisor will carry out the duties stipulated in their contractual agreements. Engaged by the Board, they are expected to actively cooperate and collaborate with the Board, the IIC, and the Investment Team, IIC, and the Board. The advisors may have full and complete discretion and authority with respect to the selection and management of investments in a specific asset class.

Broadly, the responsibilities of the investment advisors encompass: The advisors may have full and complete discretion and authority with respect to the selection and management of investments.

- Assisting the Board, IIC and team with due diligence, selection, review, management and reporting.
- Providing strategic guidance to the IIC and Team on investment strategies, market trends, and economic developments as requested.
- .
- —Ensuring all investments comply with legal and regulatory requirements and preparing detailed reports for stakeholders on the fund's financial health and performance.
- -

# **Investment Managers:**

The investment managers hired by the IIC have the duty to manage the assets allocated to them as fiduciaries and in accordance with the Investment Management Guidelines established for their accounts and their individual contracts. Investment managers must execute all transactions for the benefit of NHRS and update NHRS regarding any major changes to the portfolio management team, investment strategy, portfolio structure, ownership, organizational structure, or other changes relevant to the account.

Managers may also play a role in transition management, which includes the following responsibilities:

- Transition Planning: Develop transition strategies, including setting timelines and milestones.
- Execution Management: Oversee trade execution and coordinate with custodians, brokers, and other relevant parties.
- Risk Management and Compliance: Manage risks, ensure compliance, and oversee transition processes.
- Performance Monitoring: Track the transition's performance against benchmarks and objectives and provide regular updates.
- Providing guidance to investment office when executing asset class transition management.

# Custodian Bank:

The duties of the custodian bank are set forth by their contract with NHRS.

In general, the custodian's responsibilities include:

- Safekeeping of NHRS assets
- Settling investment transactions and collecting income
- Preparing monthly and year-end accounting statements
- Serving as the "book of record" for investment transactions and valuations
- Properly recording and reporting investment activities, transactions, income, and valuations

 <u>Calculating and reporting on gross and net investment performance as well as other</u> <u>investment analytics</u>

When selecting the custodian bank, the IIC will use the current industry standards appropriate for evaluating the qualifications of a custodian bank.

# Proxy Voting Service Provider:

The duties of the proxy voting service provider are set forth by their contract with NHRS.

In general, those responsibilities include:

- Voting proxies on behalf of NHRS per the Proxy Voting Policy
- Providing research reports
- Preparing monthly and year-end summaries
- Alerting the Investment staffTeam to issues not covered by the NHRS Proxy Voting Policy
- Recommending revisions to the NHRS Proxy Voting Policy
- Assisting in revising the NHRS Proxy Voting Policy

# Transparency / Monitoring Service Provider:

The duties of the Transparency and Monitoring Service Provider, as outlined in their contract with NHRS, include:

- Analyzing financial documentation: Identify and advise on any potential fee discrepancies between contracted Investment Managers and NHRS.
- Detecting hidden fees and costs: Search for and analyze hidden fees or costs charged to funds or portfolio investments (e.g., double fee layers, placement agents) and assess any excessive high operating expenses.
- Presenting findings: Report findings to NHRS and the respective managers.
- Negotiating resolutions: Work to resolve any identified issues.
- Monitoring refunds and optimizations: Oversee the refund process and ensure optimization where applicable.

# External Fund Counsel:

The duties of external fund counsel, as outlined in their contract with NHRS, include but not limited to:

- Engagement and legal diligence for prospective contracts for fund investments and subscription to private fund mandates and commitments
- Review and assistance with negotiating private investments with external general partners and fund managers

- Representation and assistance in administrative, regulatory proceedings, or litigation related to investment matters
- Ongoing notification and education relevant to changes in the law and industry practices affecting investments

# **Internal Partners:**

The duty of the internal NHRS partners, is to support and/-or facilitate activities being performed by the Investment Team to fulfill fiduciary responsibilities to the beneficiaries. The internal partners are made up of the following teams:

## Finance & Accounting:

- Cash Management and Financial Reporting
- Processing wires required to fund new investments and/or capital calls, pay service providers and vendors
- -Maintaining log of Investment--related transactions
- Budget oversight ensuring the alignment of investment decisions with the fund's budgetary constraints and cash flow needs

# Legal:

- Regulatory compliance: Ensure investment activities align with local, state, and federal laws
- Vendor contract review: Assess and approve agreements with external managers, custodians, and consultants
- Coordination with external fund counsel in the legal diligence of investment management agreements with external general partners and fund managers

# Information Technology:

- Supporting the secure storage and accessibility of investment-related data systems
  - •
  - Ensuring that software platforms for investment analytics, risk management, and accounting work seamlessly
  - Overseeing the implementation process, ensuring the system is tested and seamlessly integrated

# Communications:

- Stakeholder engagement: Facilitate communication between the Investment Team, board members and plan participants
- Policy dissemination: Ensure clarity and accessibility of the investment policy statement to relevant parties.

<u>Legal</u>

- Regulatory Compliance; ensures investment activities align with local, state, and federal laws
- <u>Contract review; assesses and approves agreements with external managers,</u> <u>custodians, and consultants</u>

The Accountability Matrix adopted by the Board on April 10, 2012 and incorporated herein by reference further summarizes key responsibilities and duties of the Board; IIC; <u>Chief</u> <u>Investment OfficerDirector of Investments</u> and Investment <u>StaffTeam</u>; Internal Legal <u>StaffTeam</u>; Investment Consultant(s); and Actuary. Additional responsibilities are also detailed in the Board's governance manual, contracts, and NHRS's position descriptions for <u>staffTeam</u>.

# **III. Investment Objectives**

<u>Considering</u> the purpose of the System, the Board, based on the recommendation of the IIC, has adopted the following investment objectives:

- Efficiently allocate and manage the assets of the Fund so that beneficiaries will receive promised benefits.
- Manage the portfolio on a total return basis, which recognizes the importance of the preservation of capital, as well as the fact that reasonable and varying degrees of investment risk are generally rewarded over the long-term
- Work towards achieving and then maintaining a fully funded pension status.
- Exceed the Policy benchmark on a net of fees basis over a full market cycle.

# **IV. Risk Management**

The Board's role in risk management is to approve the asset allocation targets and ranges for each asset class of the Fund. The Board recognizes that in order for the Fund to achieve its investment objectives, a reasonable level of risk must be present within the investment portfolio. Risk is referenced both in terms of absolute risk (the risk of loss) and volatility (the variability of returns). The Board will seek to minimize the risk of loss by approving an asset allocation that includes an appropriate level of diversification of Fund assets. The Board will periodically review the level of risk as represented by the asset allocation targets and ranges within the Fund and each asset class to ensure it is reasonable and within its tolerance for risk. Equity volatility (risk) is among the highest for any asset class. Other risks that the Board will consider when approving investment policy include benchmark risk, timing risk, market risk, credit risk, currency risk, liquidity risk, and any other risk it determines is relevant.

The Board acknowledges that the IIC also has a responsibility to consider risk when recommending asset allocation, and to monitor risks within the portfolio. The IIC will consider market risk, credit risk, currency risk, liquidity risk, and any other risk it believes to be relevant when it determines an asset allocation to recommend to the Board. The IIC is responsible for risk management at the manager level as it decides upon the number and types of managers to utilize within each asset class portfolio. When making decisions, the IIC will consider idiosyncratic risk (firm specific risk), benchmark risk, timing risk, market risk, credit risk, liquidity risk, interest rate risk, operational risk, concentration risk or any other risk it determines relevant as it makes its decisions.

The investment managers are responsible for risk management within the portfolio they manage on behalf of NHRS. Investment managers will consider those risks most relevant to their portfolio, which could include market risk, credit risk, currency risk, liquidity risk, inflation risk, geo-political risk, political risk, interest rate risk, and operational risk.

Descriptions of major types of risk follow:

- A. <u>Credit Risk</u>: The risk of default of a party owing cash to the System as the result of a transaction. These parties may include, but are not limited to, the counterparty and the issuer.
- B. <u>Counterparty risk (default risk)</u>: The risk to each party of a contract that the counterparty will not live up to its contractual obligations. Counterparty risk is a risk to both parties and should be considered when evaluating a contract.
- C. <u>Liquidity Risk</u>: There are two types of liquidity risk: market liquidity risk and funding liquidity risk. Market liquidity risk is the risk of being unable to purchase or liquidate a security quickly enough (or in requisite quantities) at a fair price. Market liquidity risk differs from market risk (defined below). Market liquidity risk only reflects realized price changes, while market risk reflects both realized and unrealized price changes. Funding liquidity risk relates to the relative ease of the organization to meet its cash flow needs as they come due.
- D. <u>Market Risk</u>: The risk of unexpected change in market price (amount or direction). Price changes in securities can result from movements in equity markets, interest rates, and currency exchange rates, in addition to various other factors. Market risk incorporates both realized and unrealized price changes.
- E. <u>Systemic Risk:</u> Risk that affects an entire financial market or system, and not just specific asset classes. Systemic risk cannot be avoided through diversification.

- F. Absolute Risk: Risk of loss of capital.
- <u>G. Volatility Risk</u>: The variability of returns often used as a proxy for risk.
- H. <u>Operational Risk</u>: The risk of inadequate controls against fraud, incorrect market valuation, failure to record or settle a deal, settlement with the wrong counterparty, failure to collect amounts due, failure of the computer system, or enforceability of contracts. The implications of operational risk include both financial loss and loss of reputation.
- I. <u>Geo-Political Risk</u>: The risk of the occurrence of an unanticipated international and/or domestic incident such as war, assassination, terrorism or energy shock that adversely affects global and capital markets resulting in the re-pricing of securities.
- J. <u>Political Risk</u>: The risk of nationalization or other unfavorable government action.
- K. <u>Idiosyncratic Risk</u>: Firm specific risk or the risk of the change in price of a security due to the unique circumstances of that security.
- L. <u>Benchmark Risk:</u> The risk that an investment may outperform or underperform its target return.
- M. <u>Interest rate risk:</u> The risk of an investment losing value (such as bonds) when interest rates rise. Rising interest rates increase the cost of doing business for most companies and can also, thereby, raise market risk.
- N. <u>Inflation risk:</u> The risk that rising inflation may erode the value of income and/or assets.
- O. <u>Currency risk:</u> The risk that currency movements will negatively impact an investment's return. If the value of the U.S. dollar rises in relation to other currencies, the value of foreign stock shares translates into a smaller number of U.S. dollars for investors who hold those shares. Put another way, a "strong" dollar can buy more foreign goods, including foreign stocks. Conversely, if the dollar falls in relation to other currencies, the value of foreign stock shares rises, as more "weak" dollars are needed to buy a given amount of foreign stock.
- P. <u>Timing risk:</u> The risk that the market will not move in the anticipated direction when an investment is made (upward for long positions, and downward for short positions).
- Q. <u>Concentration risk:</u> The risk that the System does not appropriately and effectively diversify the assets within an asset class. An example of

concentration risk is having too large a percentage of System assets with a single investment manager.

#### V. Asset Allocation

The Board approves the asset allocation targets and ranges for each asset class of the Fund (the allowable asset classes and the distribution of assets among those asset classes) based on recommendations from the IIC. As fiduciaries, the Board and the IIC have a duty to diversify the investments of the System to reduce risk, while maximizing the investment return. Approximately ninety percent (90%) of the long-term total return stems from the asset allocation decision. The remaining ten percent (10%) is expected to be attributable to either the selection of individual assets or timing. Accordingly, asset allocation based on recommendations from the IIC, which relies upon the advice from the Director of Investments Chief Investment Officer and the investment consultant to formulate its recommendations to the Board.

The asset allocation approved by the Board will reflect the results of an Asset Liability <u>Allocation</u> Study performed at least once in every <u>five-year</u> period, or more often, as recommended by the IIC, <u>System stain consultation with the Investment Teamff</u>, and investment consultant. <u>The study may also include an Asset Liability Study that analyzes the current assets and projected liabilities under various scenarios to ensure long--term funding for retiree benefits.</u>

The Asset <u>Liability Allocation</u> Study identifies a mix of investments, by asset class, which is expected to produce the return required to meet future funding requirements at the lowest level of risk, given all of the assumptions made and employing a mean-variance optimization model.

The asset allocation chart, which follows, lists the approved asset classes in the portfolio and the target percentages and ranges, at market value, of the System's assets to be invested in each. Due to fluctuations of market values, positioning within a specified range is acceptable and constitutes compliance with the policy. Based on the approved asset allocation, recommendations from the System's consulting actuary, IIC, investment managers and <u>the stafftTeam</u>, the Board adopts an assumed rate of return, which is subject to periodic change and which is the long-term return that can be expected from this combination of assets. As of June 9, 2020, the assumed rate of return was 6.75%.

Asset Class	Target Allocation	Allocation Range
Public Markets:		
Domestic EquityGlobal Equity:	<u>40%</u> 30%	<u>30 – 50%<del>20 –</del> 40%</u>
Non-U.S. Equity	<del>20%</del>	<del>15 – 25%</del>

PublicGlobal Fixed Income	25%	<u> 18 – 32%<del>20 – 30%</del></u>
<u>Cash:</u>	<u>0%</u>	<u>0    5%</u>
Real Estate	<del>10%</del>	<del>- 5 - 20%</del>
Alternative InvestmentsPrivate	<del>15%</del>	<del>5 – 25%</del>
Markets:		
Private Equity	<u>10%</u>	<u>5 – 15%</u>
Private Credit	<u>10%</u>	<u>0 – 15%</u>
Infrastructure	<u>5%</u>	<u>0 – 10%</u>
Real Estate	<u>10%</u>	<u>5 – 20%</u>
<u>Cash:</u>	<u>0%</u>	<u>0 – 5%</u>

Asset Allocation Targets were approved in December 2023 and the Ranges approved in December 202412/2023, allocation ranges approved 12/10/24.

The Board has approved the use of the above listed asset classes for the following reasons:

<u>Global Equity: The allocation to global equity serves to expose the fund to economic growth throughout the world and will serve as the primary growth engine for capital appreciation.</u>

<u>Domestic Equity:</u> The allocation to domestic equity serves to expose the fund to the largest economy of the world. An allocation to domestic equity should allow for return enhancement and principal appreciation.

<u>Non-U.S. Equity:</u> The allocation to non-U.S. equity, both developed and emerging markets, will serve as potential for return enhancement and principal appreciation. A secondary consideration is the diversification it provides from the U.S. market. While the U.S. and non-U.S. markets are considerably correlated, they are not perfectly correlated. Assets that are not perfectly correlated serve to reduce volatility over the long term.

<u>Global Fixed Income</u>: The investment in fixed income will serve to reduce volatility experienced in the equity markets, as well as offer an opportunity for return enhancement by investment in selected securities (for example, investment grade corporates and high yield). A portion of the fixed income allocation is expected to be invested in Treasury or other government-related issues, which will serve to reduce risk within the portfolio.

Private Markets: Private markets investments are non-traditional investments, not covered by another investment class. In general, private market alternative investments

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are incorporated into the NHRS asset allocation to enhance the portfolio's risk-adjusted return (private equity/private debtcredit) or to diversify volatility. While the risk associated with these types of investments is higher than that of other asset classes, the expected return is also higher.

- Private Equity: generates attractive risk-adjusted rates of return through investments in private companies and earns returns in excess of the public equity markets over the long-term. Private Equity sub asset classes include leveraged buyouts, venture capital, growth equity and special situations such as investment in general partner interests and industry sector funds, and include co-investments, secondaries and other customized strategies.
- Private Credit: to accomplish this objective, investments will be made across the credit universe, seeking attractive risk-adjusted returns using a diverse set of strategies. Sub asset class strategies include direct lending;, mezzanine finance;, distressed and special situations;, specialty finance;, structured credit;, real assets credit;, real estate credit;, and liquid credit.
- Infrastructure: refers to physical assets or facilities that are used to provide essential services or support economic activity, and which are privately owned and managed rather than publicly owned or operated. This category typically includes assets in sectors such as energy (e.g., power plants, renewable energy installations), transportation (e.g., toll roads, bridges, ports, airports), utilities (e.g., water, sewage, telecommunications), and social infrastructure (e.g., schools, hospitals, and housing projects). Private infrastructure investments often involve long-term capital commitments, offering the potential for stable, inflation-linked cash flows and diversification benefits within a broader investment portfolio.e.
- Real Estate: The investment in real estate will serve as an inflation hedge, return enhancement opportunity, income generator, and diversification source and will include investments within core, value-added, and opportunistic opportunities.

Private Infrastructure: refers to physical assets or facilities that are used to provide essential services or support economic activity, and which are privately owned and managed rather than publicly owned or operated. This category typically includes assets

<sup>&</sup>lt;u>Real Estate: The investment in real estate will serve as an inflation hedge, return</u> <u>enhancement opportunity, income generator, and diversification source and will include</u> <u>investments within core, value-added, and opportunistic opportunities.</u>Real Estate: The investment in real estate will serve as an inflation hedge, return enhancement opportunity, income generator, and diversification source and will include investments within core, value-added, and opportunistic opportunities.

in sectors such as energy (e.g., power plants, renewable energy installations), transportation (e.g., toll roads, bridges, ports, airports), utilities (e.g., water, sewage, telecommunications), and social infrastructure (e.g., schools, hospitals, and housing projects). Private infrastructure investments often involve long-term capital commitments, offering the potential for stable, inflation-linked cash flows and diversification benefits within a broader investment portfolio.

<u>Alternative Investments:</u> Alternative investments are nontraditional investments, not covered by another investment class. In general, alternative investments are incorporated into the NHRS asset allocation to enhance the portfolio's risk-adjusted return (private equity/private debt) or to diversify volatility (opportunistic strategies). While the risk associated with these types of investments is higher than that of other asset classes, the expected return is also higher. Strategies the IIC may use in private equity/private debt may include, but are not limited to: Buyouts; Distressed Opportunities; Energy-focused; Growth Equity; Infrastructure; Mezzanine; Direct Lending; Secondaries; Special Situations; and Venture Capital. Strategies the IIC may use for opportunistic strategies include: Credit Linked; Equity Linked; Event Driven; Trading; and Multi-Strategy.

## VI. Rebalancing

The actual asset class allocation of the Fund will be continuously reviewed by <u>the</u> <u>Investment staff Team</u> relative to the asset class policy targets. Market movements or cash flow requirements may require the actual allocations in the portfolio to deviate from the target allocations. <u>The Team</u> shall seek to maintain the Fund's actual asset allocation within allocation ranges at all times. When rebalancing is required, the <u>staff team</u> will develop a rebalancing plan that, when possible, minimizes transaction costs. The plan will identify whether the assets will be rebalanced to a point within the allowable range, or to the allocation target. <u>TheStaff Team</u> will give due consideration to market environments, costs and risks of implementation, potential impacts on manager-level performance, and other relevant factors. The <u>staff Team</u> will report to the IIC and the Board regarding rebalancing activities that have occurred.

## VII. Equity Investment in Another Entity

When the System makes an equity investment in another entity, the underlying assets of such other entity will be deemed "assets" of the System for purposes of Section 100-A15, I-b of the RSA except with respect to investments in the following entities:

- (a) Publicly-offered securities
- (b) An investment company registered under the Investment Company Act of 1940
- (c) A Company primarily engaged, either directly or through majority-owned subsidiaries, in the production and/or sale of goods and/or services (other than the investment of capital) ("Operating Company")
- (d) A private equity fund whose primary objective is to invest in Operating Companies in which it has contractual rights to influence company management
- (e) A private investment fund whose primary objective is to invest in real estate with respect to which it has the right to participate directly in the development or management
- (f) A government mortgage pool guaranteed by the United States or an agency or instrumentality thereof
- (g) An investment fund or entity in which:

(1) (i) private U.S. employee benefit plans subject to Part 4 of Subtitle B of Title 1 of the Employee Retirement Income Security Act of 1974 ("ERISA Plans"), (ii) plans subject to Section 4975 of the Internal Revenue Code ("4975 Plans"), and (iii) other entities deemed under ERISA to hold assets of such ERISA Plans and 4975 Plans (together with ERISA Plans and 4975 Plans, "Benefit Plan Investors"), hold less than 25% of any class of equity interests and

- (2) the System holds less than 25% of the total equity interests
- (h) An insurance company general account to the extent that the non-guaranteed policy portion of such account is less than 25% held by Benefit Plan Investors and less than 25% held by the System.

It is the intention of the Board that in settling any ambiguity regarding this section of policy, the Board shall look to available guidance under ERISA to settle such ambiguity.

#### VIII. Liquidity

Currently, each fiscal year, the member benefit payments paid by the System exceed the employer contributions received by the System. As a result, maintaining appropriate

liquidity is critical to the System's operations and the System's ability to meet its financial obligations. The staff <u>Team</u> will be responsible for ensuring the System maintains the appropriate liquidity for the payment of member benefits, fund expenses and capital calls from its General Partners.

#### IX. Active and Passive Management

The IIC may implement the Board's approved asset allocation through the use of both passive and active management. The use of active and passive management is detailed in the guidelines for each asset class. The goal of passive management is to gain diversified exposure to the desired asset class while incurring minimal expense and seeking a performance return comparable to the asset class benchmark. The goal of active management is to exceed the performance of the appropriate index on a net-of-fees basis at a commensurate level of risk over a full market cycle.

## X. Benchmarks

The following benchmarks represent the standards of measurement to be used for the various investment asset classes of the New Hampshire Retirement System as determined by the Board and IIC.

Asset Class	Benchmark
Global Equity	MSCI ACWI IMI (All Country World Index Investable
	<u>Market Index)</u>
Sub-asset class:	
Domestic Equity	Russell 3000 Index
	MSCI ACWI ex USA IMI Index
Non-U.S Equity	MSCI All Country World Ex-U.S. Index
<u>Global</u> Fixed Income	Bloomberg Barclays Capital U.S. Universal Bond Index
Real Estate	NCREIF NFI-ODCE Index (net of fees)
Alternative InvestmentsPrivate	
Markets:	Russell 3000 Index + 2.0%
Private Equity	(50% S&P/LSTA U.S. Leveraged Loan 100 Index and
Private Debt-Credit	50% Bloomberg High Yield Index) + 1.0%
	Consumer Price Index + 4%
Infrastructure Real Estate	NCREIF NFI-ODCE Index (net of fees)
Cash Equivalents	Three-month Treasury Bill SecurityIndex
Total Fund	Total Fund Custom Benchmark

The Total Fund Custom Benchmark is a weighted average return comprised of the respective asset class benchmarks in the same proportion as the target asset allocation.

As performance results may vary under different economic conditions and market cycles, an effective period for measuring performance would span three to five years or more. Performance returns are expected to meet or exceed the relevant benchmark on a netof-fees basis over time.

The IIC has responsibility for identifying appropriate benchmarks for each investment in the Fund.

Definitions of the benchmarks are listed below:

A. <u>The MSCI ACWI (All Country World Index) IMI is a global equity benchmark that</u> <u>includes large, mid, and small-cap companies across 23 developed and 26</u> <u>emerging markets. It is designed to represent the performance of global equity</u> <u>markets and provides broad diversification across regions and sectors.</u>

<u>A.</u>

B. The Russell 3000 Index measures the performance of the largest 3,000 U.S. companies, representing approximately 98% of the investable U.S. equity market.

<u>B.</u>

C. The MSCI ACWI ex USA (All Country World Index excluding the United States) IMI is a global equity benchmark that includes large, mid, and small-cap companies across 23 developed markets and 26 emerging markets, excluding the United States. It is designed to represent the performance of global equity markets outside of the U.S. and provides broad diversification across regions and sectors. The MSCI ACWI (All Country World Index) is a free float-adjusted market capitalization weighted index that is designed to measure the equity market performance of developed and emerging markets. The term "free float" refers to the number of shares of stock publicly owned and available for trading.

<u>C.</u>

- D. The Bloomberg Barclays Capital U.S. Universal Index represents the union of Bloomberg Barclays Capital's U.S. Aggregate Index (see below), U.S. Corporate High-Yield, Investment Grade 144A Index, Eurodollar Index, U.S. Emerging Markets Index, and the non-ERISA eligible portion of the CMBS Index. The index covers USD-denominated, taxable bonds that are rated either investment grade or below investment grade.
- E. The Bloomberg Barclays Capital U.S. Aggregate Index is an unmanaged, market-value-weighted index of taxable investment-grade fixed-rate debt issues,

including government, corporate, asset-backed and mortgage-backed securities, with maturities of one year or more.

- F. The National Council of Real Estate Investment Fiduciaries (NCREIF) Fund Index Open-End Diversified Core (NFI-ODCE) is a composite comprised of primarily Core open-end funds widely used by institutional investors for exposure to domestic private market real estate. An open-end fund is a large pool of properties held in a commingled fund structure where investors have redemption rights (typically quarterly right to make capital deposits or withdrawals). Because of quarterly purchase or redemption of fund shares, open-end funds have some of the best valuation disciplines in private market real estate. The funds report performance quarterly to NCREIF. Nearly all open-end funds are designed to be perpetual life vehicles, with many having history dating back to the 1970s.
- G. The S&P/LSTA U.S. Leveraged Loan 100 Index is a daily tradable index for the U.S. market that seeks to mirror the market-weighted performance of the largest institutional leverage loans. The constituents are drawn from a universe of syndicated leveraged loans representing over 90% of the leveraged loan market.
- H. The Bloomberg High Yield Index measures the USD-denominated, high-yield, fixed-rate corporate bond market. Securities are classified as high yield if the middle rating of Moody's, Fitch, and S&P is Ba1/BB+/BB+ or below. Consumer Price Index (CPI) measures the average change over time in the prices paid by urban consumers for a basket of goods and services. It is commonly used as a gauge of inflation and to assess changes in the cost of living. The CPI is a key economic indicator and is often used to adjust income and investment returns for inflation.
- I. The Three-month Treasury bill serves as a common benchmark for cash equivalents in an institutional portfolio due to its risk-free rate, backed by the full faith and credit of the US government, high liquidity, short-term maturity capturing current interest rate conditions, and widely published, accessible and transparent benchmark for performance comparison.
- <u>The MSCI ACWI (All Country World Index) IMI is a global equity benchmark that includes large,</u> mid, and small-cap companies across 23 developed and 26 emerging markets. It is designed to represent the performance of global equity markets and provides broad diversification across regions and sectors.
  - A. The <u>Russell 3000 Index</u> measures the performance of the largest 3,000 U.S. companies, representing approximately 98% of the investable U.S. equity market.

B. The <u>MSCI\_ACWI (All\_Country\_World\_Index)</u> is a free-float-adjusted market capitalization weighted index that is designed to measure the equity market performance

of developed and emerging markets. The term "free float" refers to the number of shares of stock publicly owned and available for trading.

- C. The Bloomberg Barclays Capital U.S. Universal Index represents the union of Bloomberg Barclays Capital's U.S. Aggregate Index (see below), U.S. Corporate High-Yield, Investment Grade 144A Index, Eurodollar Index, U.S. Emerging Markets Index, and the non-ERISA eligible portion of the CMBS Index. The index covers USD-denominated, taxable bonds that are rated either investment grade or below investment grade.
- D. The Bloomberg <u>Barclays Capital U.S. Aggregate Index</u> is an unmanaged, market-value-weighted index of taxable investment-grade fixed-rate debt issues, including government, corporate, asset-backed and mortgage-backed securities, with maturities of one year or more.
- E. The <u>National Council of Real Estate Investment Fiduciaries (NCREIF) Fund</u> <u>Index Open-End Diversified Core (NFI-ODCE)</u> is a composite comprised of primarily Core open end funds widely used by institutional investors for exposure to domestic private market real estate. An open-end fund is a large pool of properties held in a commingled fund structure where investors have redemption rights (typically quarterly right to make capital deposits or withdrawals). Because of quarterly purchase or redemption of fund shares, open-end funds have some of the best valuation disciplines in private market real estate. The funds report performance quarterly to NCREIF. Nearly all open-end funds are designed to be perpetual life vehicles, with many having history dating back to the 1970s.
- F. The <u>S&P/LSTA U.S. Leveraged Loan 100 Index (LL100)</u> is a daily tradable index for the U.S. market that seeks to mirror the market-weighted performance of the largest institutional leverage loans. The constituents are drawn from a universe of syndicated leveraged loans representing over 90% of the leveraged loan market.

The <u>Bloomberg High Yield Index</u> measures the USD-denominated, high-yield, fixed-rate corporate bond market. Securities are classified as high yield if the middle rating of Moody's, Fitch, and S&P is Ba1/BB+/BB+ or below.

I. Consumer Price Index (CPI) measures the average change over time in the prices paid by urban consumers for a basket of goods and services. It is commonly used as a gauge of inflation and to assess changes in the cost of living. The CPI is a key economic indicator and is often used to adjust income and investment returns for inflation.

## XI. Reporting to the Board

Pursuant to RSA 100-A:15, II-a, the IIC will report to the Board at least quarterly on the management, investment, and reinvestment activities of the IIC, and may delegate such reporting as it deems appropriate.

The quarterly report will include:

- A report on the investment performance of the assets of the System
- Changes, if any, in the investment managers of the System
- Changes, if any, in the investment guidelines for each of the asset classes
- Rebalancing activities, if any

Pursuant to RSA 100-A:15, VII, the IIC will prepare, for Board approval, a comprehensive annual investment report for the Board.

The annual report will include:

- A description of the IIC's philosophy for investing the assets of the System
- An analysis of the return on investment, by category
- An annual investment policy statement
- Any suggested changes in legislation which the Board may seek in order to better serve the members of the system

After Board approval, the comprehensive annual investment report is submitted to the president of the senate, the speaker of the house, and the governor.

The Investment staff <u>Team</u>, investment consultant(s), custodian bank, and other parties will also provide reporting to the Board as requested or needed.

# XII. Manager Selection, Monitoring, and Termination

The IIC, with the assistance of the <u>linvestment staff Team</u> and the investment consultant, will establish a process by which to select investment managers. Criteria for each manager search will be tailored to the search underway and NHRS' specific needs and requirements.

Examples of criteria include:

- Organizational stability
- Investment staffteam, experience and tenure
- Investment process
- Ownership
- Fees
- Performance

Manager searches will be conducted in a fair and transparent manner. During a manager search, a "no contact policy" will be in effect. During this time, only the Investment staff

<u>Team members</u> designated by the <u>Chief Investment Officer Director of Investments</u> will have any contact with potential candidates. Trustees, IIC members, and other staff team members will refrain from discussing the search with candidate firms or potential candidate firms. This policy does not preclude existing managers from carrying out their normal business requirements with NHRS.

The IIC has delegated selected manager monitoring efforts to the <u>staff Team</u> and the investment consultant. Any significant changes to a manager's investment philosophy, fees, personnel, ownership or organizational structure will be summarized and reported to the IIC. The IIC will receive quarterly and annual reporting regarding the performance of the investment managers within the fund.

The IIC has the right to terminate any investment manager at any time. Grounds for termination may include, but are not limited to:

- Changes in asset allocation that require re-structuring of the portfolio
- Failure to comply with investment management agreements
- Underperformance over the short to medium term, with consideration of long-term investment strategy and time horizon
- Significant process, organizational, ownership or personnel changes
- Unethical behavior
- Loss of confidence in the organization
- Unresponsiveness or inability to satisfy reporting requests

## XIII. Private Equity Markets Fund Advisory Board/Committee Participation

The primary purpose of a private equity markets fund advisory board/committee is to (1) provide "checks and balances" on the general partner's power and authority to operate the fund; and (2) act as a "sounding board" for matters where the interests of all the fund's partners may not be aligned.

The System has determined that the benefits of staff<u>the Investment Team</u> participating on advisory boards/committees far outweigh the risks or potential risks of not participating on advisory boards/committees. As a result, it is appropriate for <u>System staff the CIO or</u> <u>designated staffteam member</u> to represent the System as a member of an advisory board/committee, with the approval of the IIC and provided that there are appropriate protections for such members (e.g., with respect to fiduciary duty/standard of care, indemnification, confidentiality, etc.).

#### XIV. Use of Derivatives

Derivatives may only be used to modify risk/return characteristics of the portfolio, implement asset allocation changes in a cost-effective manner, or reduce transaction costs or taxes. Derivatives may not be used for speculation or leverage (borrowing).

Contracts with separate account managers will identify the types of derivatives that may be used, consistent with this Manual and prudent discretion. Managers must notify the <u>CIO Director of Investments</u> of modifications in the types of derivatives used and obtain the <u>CIO's Director of Investments</u>' approval of such modifications. The System's Non-U.S. Equity managers generally have authorization for broader use of derivatives; however, their actions will be monitored for excessive risk.

Investments in commingled funds are open to other investors; therefore, it is not possible for the System to insist that the managers of such funds abide by System policy regarding the use of derivatives; however, their actions will be monitored for excessive risk. The <u>CIO\_Director of Investments</u> will monitor a manager's use of derivatives on an ongoing basis to determine whether continued investment in a fund is prudent.

## XV. Prohibited Transactions

The following transactions will be prohibited unless stated otherwise in the investment manager guidelines:

- "Prohibited transactions" as defined under the Employee Retirement Income Security Act of 1974 (ERISA).
- Transactions that involve a broker acting as a "principal", where such broker is also the investment manager who is making the transaction.
- Any or all investment activities forbidden by SEC or other applicable governing bodies.

The exposure for options, when permitted by contract, must be based on an appropriate options pricing model.

#### XVI. Review of Investment Policy

The IIC will review the investment policy at least annually to ensure it remains appropriate and to determine whether any modifications are needed and make a recommendation to the Board for changes, if any, to the investment policy. The Board will review the recommendations of the IIC regarding the investment policy and review the policy at least annually.

#### **XVII. Glossary of Common Investment Terms**

Investment in any particular instrument or security remains subject to applicable law and circumstances then prevailing. Notwithstanding, the most common investments are cited below:

- A. <u>Alternative-Private Markets Investments</u> are <u>investable assets that fall outside</u> non-traditional investments (stocks, bonds, cash), not covered by another investment classand involve less liquid and more specialized strategies (e.g. private equity\_/\_private debt\_credit\_and opportunistic\_other private markets strategies)
- B. <u>American Depositary Receipts (ADRs)</u> are receipts for the shares of a foreignbased corporation held in the vault of a U.S. bank and entitling the shareholder to all dividends and capital gains. These are traded on various U.S.-based exchanges and are available for hundreds of stocks from numerous countries.
- C. <u>Commercial Mortgage BackedMortgage-Backed Securities (CMBS)</u> are multiclass bonds backed by pools of commercial mortgages.
- D. <u>Commercial Mortgage Lending</u> investments are notes and bonds secured by a mortgage or deed of trust providing first lien on real estate.
- E. <u>Derivatives</u> are financial instruments such as forwards, futures, options, or other instruments whose values are "derived" from another financial instrument.
- F. <u>Domestic Equity Securities</u> for System purposes typically consist of corporate common stock. These stocks must be registered on a national securities exchange or must be otherwise registered as provided in the Securities Exchange Act of 1934 as amended, with price quotations furnished through a nationwide automated quotations system approved by the National Association of Securities Dealers, Inc. (NASD). Domestic Equity Securities also include stock in corporate real estate investment trusts (REITs), which are traded on a national exchange and acquired as part of an index fund or by one of the System's domestic equity managers.
- G. <u>Domestic Fixed Income Securities</u> are U.S. Treasury or Government agency obligations; equipment trust certificates; corporate, industrial, or utility bonds; U.S. dollar denominated Euro or Yankee bonds, including Canadian obligations payable in U.S. dollars; residential and commercial mortgage-backed securities; and pass-through certificates. For System purposes, Domestic Fixed Income Securities primarily consist of instruments with maturities in excess of twelve (12) months at time of purchase.
- H. <u>Emerging Market Equities</u> are common or preferred stocks and investment shares which are registered on exchanges outside the U.S. Emerging market countries are the developing international countries which have a relatively low per capita Gross National Product. There is wide variety of economic, regulatory, and market development among the emerging countries.

- Equity Real Estate Investments are any investments in real property, either made directly or through the use of pooled vehicles such as limited partnerships, open or closed-end commingled funds, Real Estate Investment Trusts (REITs) including publicly traded REIT securities, and Real Estate Operating Companies (REOCs).
- J. <u>Non-U.S. Equity Securities</u> are common or preferred corporate stocks and investment trust shares. Only stocks registered on recognized exchanges outside the U.S. are to be considered Non-U.S. Equity Securities.
- K. <u>Real Estate Mezzanine Funds</u> are investments in funds or partnerships whose portfolios consist of junior loans secured by real estate or partnership interests in real estate ownership.
- L. <u>Repurchase Agreements</u> are agreements between a seller and a buyer, whereby the seller agrees to repurchase the securities at an agreed upon price and, usually, at a stated time.
- <u>M. Securities Lending</u> occurs when a lender transfers a security to a borrower for cash or non-cash collateral pursuant to an agreement to return the collateral for an identical security in the future.

#### <del>M.</del>

N. <u>Short Term Investments (Cash Equivalents)</u> include, but are not limited to, interest bearing or discount instruments such as money market funds; U.S. Treasury Bills; corporate-issued commercial paper; bank-issued Certificates of Deposit; bankers' acceptances; and fully collateralized repurchase agreements. For System purposes, short-term investments consist primarily of instruments maturing in twelve (12) months or less at time of purchase.

# New Hampshire Retirement System Accountability Matrix

F	unction	Independent Investment Committee	Board	Director of InvestmentsChi ef Investment andOfficer and Investment StaffTeam	Legal Counsel	Investment Consultant <u>s</u>	Actuary
1.	Establishing (and modifying when necessary) investment policy, which includes risk tolerances and investment objectives	Recommends 100-A:14-b, III; A:15, I-a(b) & VII(c)	Decides 100-A:15, I; I- a(b) & (c) & VII(c)	Provides advice/analysis		Provides advice/analysis	Provides input
2.	Establishing asset allocation targets and ranges	Recommends A:15, VII(c)(2)	Decides A:15, VII(c)(2)	Provides advice/analysis		Provides advice/analysis	Provides input
3.	Determining Investment Committee's philosophy for investing assets	Decides A:15, VII(a)	Reviews A:15, VII(a)	Provides advice/analysis			
4.	Rebalancing procedures	Decides A:15, I, II-a(b) & VII(c)(2)	Reviews A:15, I-a(c) & VII(c)(2)	Provides advice/analysis		Provides advice/analysis	
5.	Monitoring policy compliance	Reviews and assigns responsibility A:15, I-a(a)	Reviews A:15, I-a(a)	Oversees		Serves as a double check	
6.	Ensuring statutory compliance of investments parameters	Reviews quarterly A:15, I-a(a)	Reviews annually A:15, I-a(a)	Monitors compliance	Reviews for legal compliance	Abides by parameters	
7.	Monitoring Total Fund performance	Reviews and reports to the Board quarterly A:15, II-a(c)	Reviews quarterly IIC reports A:15, II-a(c)	Provides advice/analysis		Provides advice/analysis	
8.	Completing comprehensive annual investment report (as outlined in HB 1645)	Prepares A:15, VII	Approves A:15, VII	Provides assistance	Provides assistance	Provides assistance	Provides assistance

<sup>&</sup>lt;sup>1</sup> Items in red are responsibilities dictated by statute.

	Domestic Global Equity <sup>2</sup>					
	unction	Independent Investment Committee	Board	Director of Investments <u>Chief</u> Investment andOfficer and Investment Staff <u>Team</u>	Legal Counsel	Investment Consultant <u>s</u>
1.	Determining <u>domestic_global</u> equity asset class guidelines (active vs. passive, style, limitations, etc.)	Decides A:15, I-a(a)	Reviews A:15, I-a(a)	Provides advice/analysis		Provides advice/analysis
2.	Setting and reviewing domestic <u>and international</u> equity benchmarks	Decides A:15, I-a(a)	Reviews A:15, I-a(a)	Provides Advice/Analysis		Provides advice/analysis
3.	Determining number and types of managers for <del>each</del> <u>the</u> asset class	Decides A:14-b, III; A:15, II- a(b)	Reviews A:15, I-a(a)	Provides advice/analysis		Provides advice/analysis
4.	Selecting external investment managers	Decides A:14-b, III; A:15, II- a(b)	Monitors A:15, I-a(a)	Recommends	Reviews contracts	Influences/ recommends
5.	Monitoring compliance with asset class strategy and guidelines	Reviews and assigns responsibility A:15, VII(c)(3)	Reviews A:15, I-a(a) & VII(c)(3)	Oversees		Serves as a double check
6.	Reviewing asset class performance	Reviews and reports to the Board quarterly A:15, II-a(c)	Reviews quarterly IIC reports A:15, II-a(c)	Provides advice/analysis		Provides advice/analysis
7.	Monitoring performance of external investment managers	Reviews on on- going basis A:14-b, III; A:15, VII(c)(3)	Reviews quarterly reports A:15, II-a(c)	Completes monitoring activities		Completes monitoring activities

 $<sup>^{\</sup>rm 2}$  Items in red are responsibilities dictated by statute.

Non-U.S. Equity

_HUIT-U.J. Equity					
Function 1Determining international equity asset class	Independent Investment Committee	Board Reviews	Provides	<del>Legal Counsel</del>	Investment Consultant Provides
guidelines (active vs. passive, style, limitations, etc.) 2. Setting and reviewing international equity benchmarks	A <del>:15, I-a(a)</del> Decides A:15, I-a(a)	A:15, I-a(a) Reviews A:15, I-a(a)	advice/analysis Recommends		advice/analysis Provides advice/analysis
3. Determining number and types of managers for each asset class	<del>Decides</del> A:14 <del>b, III;</del> A:1 <del>5, II-a(b)</del>	<del>Reviews</del> A <del>:15, I a(a)</del>	Provides advice/analysis		<del>Provides</del> advice/analysis
4. Selecting external investment managers	<del>Decides</del> A:14-b, III; A:15, II-a(b)	<del>Monitors</del> - <del>A:15, I a(a)</del>	Recommends	Reviews contracts	Influences/ recommends
5. Monitoring compliance with asset class strategy and guidelines	Reviews and assigns responsibility A:15, I a(a)	<del>Reviews</del> A:1 <del>5, I a(a)</del>	<del>Oversees</del>		<del>Serves as a</del> <del>double check</del>
6: Reviewing performance of the asset class	Reviews and reports to the Board quarterly A:15, II-a(c)		Provides advice/analysis		<del>Provides</del> advice/analysis
7. Monitoring performance of external investment managers	<del>Reviews on on- going basis</del> A:14 b, III; A:15, <del>VII(c)(3)</del>	Reviews quarterly reports A:15, II-a(c)	Completes monitoring activities		Completes monitoring activities

	Fixed-Global Fixed Incom	e <sup>3</sup>				
F	Function	Independent Investment Committee	Board	Director of Investments <u>Chief</u> Investment andOfficer and Investment StaffTeam	Legal Counsel	Investment Consultant <u>s</u>
1.	Determining <u>global</u> fixed income asset class guidelines (active vs. passive, style, limitations, etc.)	Decides A:15, I-a(a)	Reviews A:15, I-a(a)	Provides advice/analysis		Provides advice/analysis
2.	Setting and reviewing asset class benchmarks	Decides A:15, I-a(a)	Reviews A:15, I-a(a)	Recommends		Provides advice/analysis
3.	Determining number and types of managers for each asset class	Decides A:14-b, III; A:15, II-a(b)	Reviews A:15, I-a(a)	Provides advice/analysis		Provides advice/analysis
4.	Selecting external investment managers	Decides A:14-b, III; A:15, II-a(b)	Monitors A:15, I-a(a)	Recommends	Reviews contracts	Influences/ Recommends
5.	Monitoring compliance with asset class strategy and guidelines	Reviews and assigns responsibility A:15, VII(c)(3)	Reviews A:15, VII(c)(3)	Oversees		Serves as a double check
6.	Reviewing performance of asset classes	Reviews and reports to the Board quarterly A:15, II-a(c)	Reviews quarterly IIC reports A:15, II-a(c)	Provides advice/analysis		Provides advice/analysis
7.	Monitoring performance of external investment managers	Reviews on on- going basis A:14-b, III; A:15, VII(c)(3)	Reviews quarterly reports A:15, II-a(c)	Completes monitoring activities		Completes monitoring activities

<sup>&</sup>lt;sup>3</sup> Items in red are responsibilities dictated by statute.

	Real Estate <sup>4</sup>					
F	unction	Independent Investment Committee	Board	Director of InvestmentsChie f Investment andOfficer and Investment StaffTeam	Legal Counsel	Investment Consultant <u>s</u>
1.	Determining real estate asset class guidelines (diversification, style, limitations, etc.)	Decides A:15, I-a(a)	Reviews A:15, I-a(a)	Provides advice/analysis		Provides advice/analysis
2.	Setting and reviewing asset class benchmarks	Decides A:14-b, III; A:15, VII	Reviews A:15, VII	Provides advice/analysis		Provides advice/analysis
3.	Determining number and types of managers for the asset class	Decides A:14-b, III; A:15, II-a(b)	Reviews A:15, I-a(a)	Provides advice/analysis		Provides advice/analysis
4.	Selecting external investment management firms	Decides A:14-b, III; A:15, II-a(b)	Monitors A:15, I-a(a)	Influences <u>Recom</u> mends	Reviews contracts	Influences
5.	Monitoring compliance with policy	Reviews and assigns responsibility	Reviews A:15, I-a(a)	Oversees		Serves as a double check
6.	Reviewing performance of the asset class	Reviews and reports to the Board quarterly A:15, II-a(c)	Reviews quarterly IIC reports A:15, II-a(c)	Provides advice/analysis		Provides advice/analysis
7.	Monitoring performance of external investment managers	Reviews on on- going basis A:14-b, III; A:15, VII(c)(3)	Reviews quarterly reports A:15, II-a(c)	Completes monitoring activities		Completes monitoring activities
8.	Valuation of real estate	Reviews quarterly A:15, I-a(b)(3); A:15, VII(c)(3)	Monitors A:15, I-a(a)	Ensures valuations are completed		Assists as needed
9.	Executing purchase and sale agreements on real estate	Reviews quarterly A:15, II-a(b) & VII(c)(3)		Ensures valuations are completed	Reviews contracts	

<sup>4</sup> Items in red are responsibilities dictated by statute.

Alternatives InvestmentsPrivate Markets Policy<sup>5</sup>

	Function	Independent Investment Committee	Board	Director of InvestmentsChief Investment andOfficer and Investment StaffTeam	Legal Counsel	Investment Consultant <u>s</u>
1.	Determining <del>alternative</del> asset <u>private markets</u> class guidelines (style, diversification, limitations, etc.)	Decides A:15, I-a(a)	Reviews A:15, I-a(a)	Provides advice/analysis		Provides advice/analysis
2.	Setting and reviewing asset class benchmarks	Decides A:14-b, III; A:15, VII	Reviews A:15, VII	Provides advice/analysis		Provides advice/analysis
3.	Approving number and types of external managers	Decides A:14-b, III; A:15, II- a(b)	Monitors A:15, I-a(a)	Provides advice/analysis		Provides advice/analysis
4.	Selecting external investment management firms	Decides A:14-b, III; A:15, II-a(b)	Monitors A:15, I-a(a)	Influences <u>Recom</u> <u>mends</u>	Reviews contracts	Influences
5.	Monitoring compliance with	Reviews and assigns responsibility A:15, VII(c)(3)	Reviews A:15, I-a(a)	Oversees	P	Serves as a double check
6.	Reviewing performance of the asset class	Reviews and reports to the Board quarterly A:15, II-a(c)	Reviews quarterly IIC reports A:15, II-a(c)	Provides advice/analysis		Provides advice/analysis
7.	Monitoring performance of external investment managers	Reviews on on- going basis A:14-b, III; A:15, VII(c)(3)	Reviews quarterly reports A:15, II-a(c)	Completes monitoring activities		Completes monitoring activities
8.	Valuation of private equity	Reviews quarterly A:15, I-a(b)(3); A:15, VII(c)(3)		Ensures valuations are completed		Assists as needed

<sup>5</sup> Items in red are responsibilities dictated by statute.

Function	Independent Investment Committee	Board	Director of InvestmentsChief Investment andOfficer and Investment StaffTeam	Legal Counsel	Investment Consultant <u>s</u>
<ol> <li>Executing partnership agreements on private equity</li> </ol>	Reviews quarterly A:14-b, III; A:15, II-a(b)		Ensures agreements are executed	Reviews agreements	

Selection and Monitoring of Investment Managers<sup>6</sup>

<b>- F</b> 1.	Function Selecting specific external investment management firms	Investment Committee Decides A:14-b, III; A:15, II-a(b)	Board Monitors A:15, I-a(a)	Director of Investments <u>Chief</u> Investment andOfficer and Investment <u>StaffTeam</u> Influences <u>Recom</u> <u>mends</u>	Legal Counsel	Investment Consultants Influences
2.	Conducting due diligence meetings and activities	Reviews staff/consultants A:15, I-a(a); A:15, VII(c)(3); A:15, (c)(3)		Oversees <u>Complet</u> es <u>investment</u> <u>manager</u> due diligence		Completes <u>independent</u> due diligence activities
3.	Developing individual manager guidelines			Approves <u>Recomm</u> ends	Reviews	Provides advice/analysis
4.	Executing investment manager contracts			Approves	Recommends <u>Con</u> ducts legal <u>diligence</u>	Provides assistance
5.	Monitoring performance of external investment managers	Reviews on on-going basis A:14-b, III; A:15, VII(c)(3)	Reviews quarterly reports A:15, II-a(c)	Completes monitoring activities		Completes monitoring activities

<sup>6</sup> Items in red are responsibilities dictated by statute.

Selection of Other Service Providers<sup>7</sup>

				<del>Director of</del> Investments <u>Chief</u> Investment		
F	unction	Independent Investment Committee	Board	andOfficer and Investment Staff <u>Team</u>	Legal Counsel	Investment Consultant
1.	Selecting (and periodically reviewing) custodian banks	Decides A:15, II-a(a)	Monitors A:15, I-a(a)	Influences	Reviews contract	Influences
2.	Selecting (and periodically reviewing) general investment consultant	Recommends A:14-b, III	Decides A:15, II(c)	Provides input	Reviews contract	
3.	Selecting (and periodically reviewing) specialty investment consultants	Recommends A:14-b, III	Decides A:15, II(c)	Provides input	Reviews contract	
4.	Selecting (and periodically reviewing) the fund's actuary		Decides A:15, II(a)	Influences	Reviews contract	
5.	Selecting (and periodically reviewing) outside legal counsel for investment issues		Decides A:15, IV	Influences	Recommends	
6.	Selecting (and periodically reviewing) proxy voting service provider		Approves A:15, I-a(a)	Recommends	Reviews contractOversees/ <u>Recommends/Rev</u> iews Contract	Influences
7.	Selecting (and periodically reviewing) transition managers	Decides A:14-b, III; A:15, II-a(b)	Reviews A:15, I-a(a)	Recommends	Reviews contract	Influences
8.	Selecting (and periodically reviewing) transaction analysis provider	Decides A:15, II-a(b)	Reviews A:15, I-a(a)	Recommends	Reviews contract	Influences

<sup>7</sup> Items in red are responsibilities dictated by statute.

Proxy Voting						
F	unction	Investment Committee	Board	Executive Director or <del>Director of</del> Investments <u>Chief</u> Investment Officer	Legal Counsel	Investment Consultant
1.	Setting (and modifying) proxy voting policy		Decides A:15, I-a(a)	Recommends	Provides input	Provides advice/analysis
2.	Identifying proxy voting issues and positions		Decides A:15, I-a(a)	Provides advice/analysis	Provides input	Provides advice/analysis
3.	Monitoring proxy voting activity		Reviews annually A:15, I-a(a)	Prepares		
4.	Approving exceptions to the policy		Reviews annually A:15, I-a(a)	Oversees/ recommends	Provides input	Provides advice/analysis
5.	Ensuring policy compliance		Reviews annually A:15, I-a(a)	Oversees	Provides input	Provides advice/analysis

	Securities Lending					
	Function	Investment Committee	Board	Executive Director or Director of InvestmentsChie <u>f Investment</u> Officer	Legal Counsel	Investment Consultant
	<ol> <li>Setting (and modifying) securities lending policy</li> </ol>	Provides Input A:15, I-a(a)	Decides A:15, I-a(a)	Provides advice/analysis	Provides input	Provides advice/analysis
	<ol> <li>Creating and updating securities lending guidelines</li> </ol>	Approves A:15, I-a(a)	Reviews A:15, I-a(a)	Recommends	Provides input	Provides advice/analysis
	<ol> <li>Monitoring securities lending activity</li> </ol>	Reviews and assigns responsibility A:15, I-a(a)	Reviews A:15, I-a(a)	Oversees	Provides input	Provides advice/analysis
4	4. Ensuring policy compliance	Reviews and assigns responsibility A:15, I-a(a)	Reviews A:15, I-a(a)	Oversees	Provides input	Provides advice/analysis

## **Global Equity Investment GuidelinesDomestic Equity Investment Guidelines**

**Purpose**: The Global Equity allocation provides the assets of the System with broad participation in global equity markets, including both domestic and international equities. This diversified allocation, across various styles, capitalizations, and geographies, aims to maximize long-term total returns while mitigating risk through geographical and sectoral diversification. The allocation to Domestic Equity provides the assets of the System with participation in the largest economy of the world. A diversified allocation, across style and capitalization, to domestic equity should assist in maximizing long-term total returns.

Allocation: <u>The target allocation to Global Equity is 40% of the Total Fund, with an allowable range of 30 – 50%.</u>

The current target allocation to Domestic Equity is 30% of the Total Fund, with an allowable range of 20 – 40%.

**Structure**: The Global Equity portfolio is structured to incorporate both active and passive management strategies. Active management is utilized where there is the greatest potential for alpha generation, while passive management is employed in regions or sectors where alpha generation is difficult to obtain, focusing instead on low-cost, efficient beta exposure. The portfolio is diversified across styles, capitalizations, and geographies, with a focus on areas where active management is expected to add value. Global Equity will encompass the Domestic Equity asset class and the Non-US Equity asset class.

Domestic Equity: The Domestic Equity portion is primarily managed with both active and passive strategies, with a minimum of 50% allocated to passive, large-cap equity securities domiciled in the US.

Non-U.S. Equity: The Non-U.S. Equity portion is predominantly actively managed and diversified across global markets, including developed and emerging markets excluding the US. Passive management may be used if determined to be beneficial by Investment StaffInvestment Team and the Independent Investment Committee (IIC). The Domestic Equity portfolio is structured to incorporate both active and passive management. Active management is focused where there is the greatest potential for alpha generation. Passive management is focused where alpha generation has been demonstrated to be difficult to obtain. Therefore, the goal of the passive allocation is to gain low-cost efficient beta exposure. The portfolio is focused to increase exposure to those areas of the capital markets where it is more likely that active management will add value.

Component	Allocation Target*		
<mark>Large Cap, Passive</mark>	Minimum of 50%		
* As a percentage of Domestic Equity	4		

**Custody**: <u>All Global Equity securities, including both Domestic and Non-U.S. equities,</u> shall be maintained in the custody and safekeeping of the System's master custodia<u>In</u> bank. Commingled fund assets may be held in custody at the discretion of the fund <u>manager.All Domestic Equity securities shall be maintained in the custody and safekeeping of the System's master custodial bank. Commingled fund assets, however, are held in custody at the discretion of the fund manager.</u>

**Use of Commingled Funds:** Mutual funds and other types of commingled investment vehicles provide, under some circumstances, lower costs and better diversification than can be obtained with a separately managed account pursuing the same investment objectives. However, commingled investment funds cannot customize investment guidelines to the specific needs of individual clients. The Independent Investment Committee (IIC) is willing to accept the policies of such funds in order to achieve the lower costs and diversification benefits of commingled funds, as long as the commingled guidelines are consistent with the spirit of those specified herein and the underlying individual investment manager portfolio-level guidelines. The IIC relies on Staff the Investment Team and the Investment Consultant to assess and monitor the investment policies of any commingled fund used by the System.

**Manager Guidelines for Separate Accounts**: Portfolio-level guidelines are negotiated with each IIC-approved investment manager with the purpose of establishing agreed-upon parameters for the management of assets. These guidelines are generally based on the guidelines for the respective manager's composite portfolio and investment style; are reviewed by staffthe Team in collaboration with the System's Investment Consultant; and are subject to execution by the Director of Investments Chief Investment Officer and the manager prior to implementation. Each manager will be granted full discretion within the context of their respective portfolio-level negotiated guidelines.

Managers are prohibited from deviating from their respective portfolio-level guidelines without prior written approval from the <u>Director of InvestmentsChief Investment Officer</u>. Any guideline violation must be reported by the manager in writing as soon as it is discovered (within 24 hours). Recommendations for guideline revisions are to be provided to the <u>Director of InvestmentsChief Investment Officer</u> in writing, and shall include the rationale for the changes and all relevant research. Any guideline revision requests are reviewed by the <u>Director of InvestmentsChief Investment Officer</u> and thein consultation with the System's Investment Consultant prior to approval. All substantive changes to manager guidelines will be reported to the IIC at the next meeting.

**Permissible Investments**: All eligible securities shall be traded in domestic markets and be of a class listed on a national securities exchange or traded in the over-the-counter market.

Permissible investments are defined within individual manager portfolio-level guidelines, and generally include:

- Common stocks, preferred stocks, and securities with equity characteristics (including, but not limited to, American Depository Receipts and Shares, warrants, and rights) of U.S. and foreign issuers
- European Depository Receipts listed and traded on major U.S. exchanges and in overthe-counter markets
- Securities convertible into common stocks
- 144A securities
- Futures contracts
- Exchange traded funds and similar vehicles
- Closed-end funds
- Private placements, Secondary Offerings, IPO investments and offers for sale
- Real Estate Investment Trusts and Income Trusts
- Short-term fixed income securities and cash equivalents

**Prohibited Investments**: Any security or strategy not specifically permitted in the respective manager portfolio guidelines requires written permission from the <u>Director of InvestmentsChief Investment Officer</u> prior to purchase.

Prohibited investments are defined within individual manager portfolio-level guidelines, and generally include:

- Short sales
- Margin transactions
- Use of leverage
- Stock in non-public corporations, private placements or other non-marketable issues
- Specialized investment vehicles
- Direct investments in commodities
- Direct investments in real estate
- Direct investments in Venture Capital
- Lettered stock
- Foreign securities other than those noted in *Permissible Investments* above
- Direct investments in oil, gas, or other mineral exploration or development programs

#### **Concentration Limits:**

 The System shall closely monitor instances where its investments represent a significant component of a commingled fund or total assets under management (AUM) at the strategy level. If the System's positions become more than 20% of any commingled investment fund, or total strategy AUM, <u>Staff Investment Team</u> will notify the IIC and the investment will be monitored to see if any changes are warranted.

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#### **Global** Fixed Income Investment Guidelines

**Purpose**: The allocation to <u>Global</u> Fixed Income serves to provide income and potentially reduce volatility experienced in the equity markets, as well as offer an opportunity for return enhancement by investing in selected <u>global</u> <u>market\_debt</u> sectors (for example, investment grade corporate bonds and high yield debt). A portion of the <u>Global</u> Fixed Income allocation is expected to be invested in U.S. Treasury securities or other government-related issues, which will potentially reduce risk within the portfolio.

**Allocation**: The current target allocation to <u>Global</u> Fixed Income is 25% of the Total Fund, with an allowable range of  $\frac{20\%18\%}{20\%18\%}$  –  $\frac{30\%32\%}{20\%32\%}$ .

**Structure**: The <u>Global</u> Fixed Income portfolio is currently 100% actively managed, as fixed income has been identified as an area in the capital markets where it is more likely that active management will add value. The portfolio is broadly diversified across global markets, sectors, securities and maturities. Active management is focused where there is the greatest potential for alpha generation. Passive management is focused where alpha generation has been demonstrated to be difficult to obtain while also allowing the ability to gain low-cost efficient beta exposure. Passive management may be utilized if determined to be beneficial by the Independent Investment Committee (IIC).

Component	Allocation
	Target*
Core	Minimum of 60%

\* As a percentage of Fixed Income Global Fixed Income.

The Fixed IncomeGlobal Fixed Income Core component is defined as securities held within the Bloomberg Barclays U.S. Aggregate Index which measures the investment grade, U.S. dollar-denominated, fixed-rate taxable bond market. The index includes U.S. Treasuries, government-related and corporate securities, mortgage backed securities, asset backed securities, and commercial mortgage backed securities. TIPS, 144a securities with registration rights and permanent 144a securities are also permitted.

**Custody**: All Fixed Income<u>Global Fixed Income</u> securities shall be maintained in the custody and safekeeping of the System's master custodial bank. Commingled fund assets, however, are held in custody at the discretion of the fund manager.

**Use of Commingled Funds:** Mutual funds and other types of commingled investment vehicles provide, under some circumstances, lower costs and better diversification than can be obtained with a separately managed account pursuing the same investment objectives. However, commingled investment funds cannot customize investment guidelines to the specific needs of individual clients. The IIC is willing to accept the policies of such funds in order to achieve the lower costs and diversification benefits of commingled funds, as long as the commingled guidelines are consistent with the spirit of those specified herein and the underlying individual investment manager portfolio-level

guidelines. The IIC relies on Staff the Team and the Investment Consultant to assess and monitor the investment policies of any commingled fund used by the System.

**Manager Guidelines for Separate Accounts**: Portfolio-level guidelines are negotiated with each IIC-approved investment manager with the purpose of establishing agreed-upon parameters for the management of assets. These guidelines are generally based on the guidelines for the respective manager's composite portfolio and investment style; are reviewed by staff the -Team in collaboration with the System's Investment Consultant; and are subject to execution by the <u>Director of InvestmentsChief Investment Officer</u> and the manager prior to implementation. Each manager will be granted full discretion within the context of their respective portfolio-level negotiated guidelines.

Managers are prohibited from deviating from their respective portfolio-level guidelines without prior written approval from the <u>Director of InvestmentsChief Investment Officer</u>. Any guideline violation must be reported by the manager in writing as soon as it is discovered (within 24 hours). Recommendations for guideline revisions are to be provided to the <u>Director of InvestmentsChief Investment Officer</u> in writing, –and shall include the rationale for the changes and all relevant research. Any guideline revision requests are reviewed by <u>Staff the Team</u> and the System's Investment Consultant prior to approval. All substantive changes to manager guidelines will be reported to the IIC at the next meeting.

**Permissible Investments**: Permissible investments are defined within individual manager portfolio-level guidelines, and generally include:

- U.S. Treasuries and U.S. Treasury Inflation Protected Securities
- Obligations of U.S. Federal Agencies and Government Sponsored Enterprises (GSEs)
- Foreign Sovereign Debt
- Small Business Administration Securities
- Municipal Securities
- Corporate Obligations, including but not limited to, Convertible Bonds
- Foreign Sovereign Debt
- Structured Securities including Asset Backed Securities; Collateralized Mortgage Obligations; Commercial Mortgage Backed Securities; Residential Mortgage Backed Securities
- Zero Coupon Securities
- Non-Sovereign Government/Non-Supranational Debt
- Emerging Market Debt
- Forward exchange contracts/currency derivatives, when used to protect the U.S. Dollar value of the portfolio, dampen portfolio volatility, or to facilitate the settlement of securities
- Private Placements, including 144A securities
- Exchange traded funds and similar vehicles
- Common Stock (shall not exceed 5% of the market value of any individual manager)
- Preferred Stock (shall not exceed 20% of the market value of any individual manager)

- Capital Securities
- Trust Preferred Securities
- Real Estate Investment Trust debt
- Short-term fixed income securities and cash equivalents

**Prohibited Investments**: Any security or strategy not specifically permitted in the respective manager portfolio guidelines requires written permission from the <u>Director of InvestmentsChief Investment Officer</u> prior to purchase.

Prohibited investments are defined within individual manager portfolio-level guidelines, and generally include:

- Short Sales
- Margin transactions
- Use of leverage
- Specialized investment vehicles
- Direct investments in commodities
- Direct investments in real estate
- Direct investments in Venture Capital
- Direct investments in oil, gas, or other mineral exploration or development programs

## **Concentration Limits:**

 The System shall closely monitor instances where its investments represent a significant component of a commingled fund or total assets under management (AUM) at the strategy level. If the System's positions become more than 20% of any commingled investment fund, or total strategy AUM, staff\_the Team will notify the IIC and the investment will be monitored to see if any changes are warranted.

#### Alternative InvestmentPrivate Markets- Guidelines

**Purpose**: Private markets investments or alternative investments represent nontraditional vehicles that do not fit within conventional investment asset classes. These investments aim primarily to achieve superior risk-adjusted returns. They may also exhibit a low correlation with broader stock and bond market returns, potentially reducing the volatility of the Total Fund'splan's total returns. Examples of private markets investments encompass private equity, private credit, real estate, opportunistic strategies, infrastructure, and hedge funds, and opportunistic strategies.

Due to their non-traditional, long-term, and illiquid nature, alternativeprivate markets investments necessitate the development of an Annual Strategic Plan. This plan will be prepared and presented to the Independent Investment Committee (IIC) for approval. Alternative investments are non-traditional investment vehicles that do not fall within another investment asset class. The primary objective of alternative investments is to seek superior risk-adjusted returns. Secondarily, these investments have had a low correlation with broad stock and bond market returns, thus potentially reducing the volatility of the return of the Total Fund. Examples of alternative investments include private equity, private debt, opportunistic strategies, and hedge funds. As a result of the non-traditional, long-term and illiquid nature of alternative investments, an Annual Strategic Plan will be prepared and presented to the Independent Investment Committee (IIC) for approval.

**Allocation**: The current target allocation to <u>Alternative Private Markets</u> Investments is 1525% of the Total Fund, with an allowable range of 15 - 2535%.

In order to reach and maintain the target allocation, capital commitments in excess of <del>1525</del>% of the Total Fund may be made. The primary reasons for permitting such an over commitment are the staged capital calls for new investments and anticipated returns of capital.

## Targets:

Sub Sti	rategy	Allocation Target*
Private	Equity	<u>10%</u>
Private	Credit	<u>10%</u>
Infrastru	ucture	<u>5%</u>
* As a per	centage of Total I	Fund

Custody: All assets are held in custody at the discretion of the fund manager.

**Structure**: The <u>Alternative InvestmentPrivate Markets</u> portfolio primarily includes the following:

Private Equity – The purpose of Private Equity is to earn risk-adjusted returns in excess of public equity markets. These investments are also expected to decrease the volatility of the System's assets through the diversification benefits of having lower correlations with other asset classes.

Sub-strategies include:

- Buyouts/Corporate Finance Provides leveraged capital and business development capital to enable the restructuring of existing business and industries.
- Private Energy Investments may include exploration & production, generation, storage, transmission, distribution, renewable energy sources, clean technologies, energy technologies and other similar investments.
- Growth Equity Provides expansion capital for small, growing businesses that are generating cash flow and profits. Generally, these types of investments have reduced exposure to technology risk compared with venture capital.
- Infrastructure Investments involve the purchase of critical service assets (i.e. toll roads, bridges, water treatment plants, etc.). Typically, infrastructure assets exhibit one or more of the following qualities: monopolistic or quasi-monopolistic, high barriers to entry, long-term assets, regulatory or permitting constraints.
- Secondaries Private equity interests that are generally purchased at a discount from valuation from motivated sellers. The interests purchased are generally venture and buyout interests with limited exposure to unfunded capital commitments. The strategy also includes the purchase of direct interests in companies through the secondary market.
- Distressed/Special Situations A strategy whereby a manager invests in the distressed debt of companies that likely will undergo some sort of financial and/or operational restructuring. A manager will usually build a controlling stake in a distressed company through the "fulcrum security" which is generally a high yield bond or bank debt. The investment team will then work actively to maximize the value of the investment through driving either an informal restructuring or a formal bankruptcy procedure. The balance sheet may be restructured; new management inserted; cost cutting implemented; as well as other operational improvements put in place.

a combination of a debt coupon; capital appreciation of the distressed security; and, participation in the upside of post-reorganization equity.

 Venture Capital – Implies early, late and balanced-stages of financing, as well as growth capital, of rapidly growing companies with an innovative/disruptive business idea for a proprietary product or service.

Private Credit - diversify the portfolio and aim to generate higher risk-adjusted returns compared to public credit markets. These investments focus on opportunities in private lending, providing stable income and reducing overall portfolio volatility. They complement traditional fixed income investments by offering lower correlation with public markets and potential for attractive yields. Our strategy aims to preserve capital, generate income sustainably, and enhance overall portfolio performance over the long term.Private Debt – The purpose of Private Debt is to earn risk-adjusted returns in excess of public debt markets. These investments are also expected to decrease the volatility of the System's assets through the diversification benefits of having lower correlations with other asset classes.

Sub-strategies include:

*Direct Lending* — An investment strategy involving senior or unitranche lending directly to companies that seek to generate high current income while focusing on preservation of capital.

- Direct Lending An investment strategy involving senior or unitranche lending directly to companies that seek to generate high current income while focusing on preservation of capital.
- Distressed Includes trading strategies through control positions. For trading strategies, distressed securities are defined as securities experiencing financial or operational distress, default, or are under bankruptcy. Investment instruments include publicly-traded debt securities, private debt, trade claims, mortgage debt, common and preferred stock and commercial paper. Control strategies involve companies with poorly-organized capital structures, turnaround situations and bankrupt companies. Long and short positions are commonly used as a technique to lock in profit or reduce risk.
- Mezzanine/Junior Capital An investment strategy involving subordinated debt (the level of financing tranche that is senior to equity but below senior debt). Capital supplied by mezzanine or junior capital financing is used for various situations such as facilitating changes in ownership through leveraged buyouts or recapitalizations, financing acquisitions, or enabling growth. Venture lending and leasing is a subset of mezzanine financing that targets venture-backed companies. Revenue and Royalty interests are a subset of mezzanine financing that targets intellectual property, license agreements and other similar property that has the ability to restrict the rights to commercialization.

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- <u>Asset-Based Lending providing loans that are secured by a borrower's tangible</u> assets, such as accounts receivable, inventory, equipment, or real estate. This strategy focuses on lending to companies that may not have access to traditional credit markets but possess valuable physical assets that can be used as collateral. ABL investments are typically structured as revolving credit facilities or term loans, and are primarily used to finance working capital needs, acquisitions, or other corporate requirements.
- Structured Credit A private credit strategy which, involves investing in complex financial instruments that are typically collateralized by a pool of assets, such as collateralized loan obligations (CLOs), collateralized debt obligations (CDOs), or asset-backed securities (ABS).invests in assets such as pools of loans in the consumer, real estate and transportation space. Often, a manager of this strategy will originate or purchase a pool of loans; service them; and, in some cases, securitize them and sell securitized tranches to the market. Returns are driven by a combination of underlying loan coupon; value enhancement through servicing; and, upside through public market securitization.
- Specialty Finance A private credit strategy which generally provides growth capital in the form of senior secured loans to loan origination platforms such as mortgage; consumer debt and transportation leasing. These loans are securitized by a pool of underlying loans which are placed in a bankruptcy remote structure and pay amortize over time. Specialty finance lenders' returns are generated by a combination of a coupon and, in some cases, equity kickers in the underlying borrower. These loan pools may be securitized and sold into the public market.
- Royalty Finance A private credit strategy which provides debt financing to entities secured by the cash flow of royalty payments of a licensed product. For example, healthcare royalty strategies provide capital in the form of senior secured debt backed by predictable royalty payments from pharmaceutical or other medical devices. Music royalties' strategies, for example, provide debt which is backed by royalty payments from a particular portfolio of music recordings.
- Litigation Finance A private credit strategy which lends money to corporations or law firms to fund the cost of prolonged litigation, often contingent on a favorable payout. Financings may be pre-settlement in which returns are driven by a combination of a debt coupon and upside participation in one, or a diversified pool of legal cases. Litigation funding in the form of a loan may also be provided post a legal settlement. This this type of funding is used to bridge a payment expected by the law firm or other entity entitled to litigation proceeds.

— Real Asset Lending – Private asset-backed loans including backed by real asset collateral such as real estate and infrastructure. Real Assets credit investments may include senior debt or project finance loans, often with long-term, stable cash flows.



Targets:

	Sub Strategy	Allocation Target*
ſ	Private Equity	<del>10%</del>
ſ	Private Debt	<del>5%</del>
	* As a perceptage of Total Fund	

Custody: All assets are held in custody at the discretion of the fund manager.

**Risk Management:** Alternative investmentPrivate Markets strategies do not lend themselves to traditional quantitative measures of risk such as standard deviation and benchmark tracking error. Rather, risk is managed through a combination of quantitative and qualitative constraints. The following sections identify the unique risks with alternative private markets investments and method of control:

- Industry Typically, alternative investmentprivate markets funds are permitted to invest in a wide variety of industries with limited controls. Industry risk is controlled primarily through appropriate diversification across strategies and substrategies.
- Leverage Many underlying <u>alternative investmentprivate markets</u> programs will utilize leverage. The intent of the System is to not rely on managers employing high degrees of leverage.
- Vintage <u>Year</u> Vintage <u>year merely</u> reflects the year of first capital draw and vintage risk refers to the variability of investment commitments over time.\_—A long-term investment pacing schedule is developed which minimizes vintage risk while achieving targeted exposure.

- Concentration Limits The System shall not own more than 10% of any single investment vehicle except with prior approval of the NHRS IIC.
- Due Diligence Each potential investment will be evaluated for portfolio fit; organizational stability; investment staff; investment strategy; investment process; and fund economics.
- Annual Strategic Plan Given the non-traditional, long-term and illiquid nature of alternative private markets investments, an Annual Strategic Plan will be prepared and presented to the IIC for approval. The Annual Strategic Plan will include a review of performance; cash flow and liquidity analyses; commitment pacing; and sub-strategy recommendations.

Draft: February 11, 2025July 23, 2021 6

### **LEGISLATIVE COMMITTEE**



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### 2025 Legislative Tracker

*February 6, 2025* 

Legislation introduced in the 2025 session that would impact the New Hampshire Retirement System (NHRS, the retirement system) is listed below. For details on a particular bill, visit the State of New Hampshire General Court website at: <a href="http://gencourt.state.nh.us/">http://gencourt.state.nh.us/</a>

BILL #	BRIEF DESCRIPTION	PRIMARY SPONSOR	STATUS
	2025 NHRS-RELA	TED BILLS	
HB 197	This bill provides that the state shall pay 7.5% of contributions of retirement system employers other than the state for group I teachers and group II members.	Rep. Michael Edgar	2/5/25: House Finance Div. 1 voted <i>RETAINED IN COMMITTEE</i> , 8-0.
HB 216	This bill removes the one year cap of creditable service towards retirement benefits for workers' compensation.	Rep. Carol McGuire	1/22/25: House ED&A Committee voted to recommend <i>OTP</i> , 13-0. 2/6/25: House voted OTP. 2/6/25: Referred to House Ways and Means.
HB 445	This bill establishes a commission, that includes a representative from the NHRS' Board, appointed by the Board, to study the causes of and ways to alleviate the shortage of law enforcement officers in New Hampshire.	Rep. Terry Roy	House Criminal Justice and Public Safety Committee public hearing scheduled for 2/7/25 at 2:30 pm in LOB Rm. 202
HB 534	This bill excludes supplemental pay paid by the employer while the member is receiving workers' compensation from the calculation of the average percentage of compensation paid in excess of the full base rate of compensation.	Rep. Mark Pearson	1/30/25: House ED&A Committee voted to recommend <i>ITL</i> , 13-0. The recommendation will be voted on by the full House at a future date.
HB 536	This bill provides a COLA to NHRS retirees who have been retired for at least 60 months as of 7/1/25.	Rep. Jaci Grote	1/30/25: House ED&A Committee held public hearing. Sent subcommittee to schedule work session.
HB 581	This bill establishes a group III, defined contribution state retirement plan for new state employee members of the retirement system, who begin service on or after $7/1/25$ .	Rep. Dan McGuire	1/30/25: House ED&A Committee held public hearing. Sent to subcommittee to schedule work session.
HB 622	This bill increases the hours that a part-time employee in the NHRS can work, removes the 28-day waiting period before a retiree may be employed on a part-time basis, and adds that certain detail assignments performed by retired law enforcement officers shall not count towards the maximum hours cap.	Rep. Douglas Trottier	1/30/25: House ED&A Committee voted to recommend <i>ITL</i> , 14-0. The recommendation will be voted on by the full House at a future date.
HB 637	This bill provides that the reduction of a retiree's annuity at the member's full retirement age under the federal Social Security system shall apply to any group I retired state employee member or retired teacher member of group I who retired prior to 7/1/23, and who has not reached full social security retirement age by 7/1/25	Rep. David Luneau	1/30/25: House ED&A Committee held public hearing. ED&A subcommittee work session scheduled for 2/6/25 at 1:30 pm in LOB 306.
HB 702	This bill adds specific provisions regarding extra or special duty pay in the context of part-time employment for retired members of the New Hampshire retirement system.	Sen. Fred Doucette	2/5/25: House ED&A Committee held public hearing. Sent to subcommittee to schedule work session.

BILL #	BRIEF DESCRIPTION	PRIMARY SPONSOR	STATUS
НВ 727	This bill makes significant changes to the NH retirement system, including the maximum retirement benefits for certain employees, the dates and percentages related to the calculation of retirement benefit, and the definition of "earnable compensation."	Rep. Charles Foote	2/5/25: House ED&A voted: <i>RETAINED IN COMMITTEE</i>
SB 20	This bill provides that the state shall pay 7.5% of local employer retirement contributions for Group I Teachers and Group II Police and Fire members.	Sen. Cindy Rosenwald	1/30/25: Senate passed bill on roll call vote. 1/30/25: <i>LAID ON TABLE</i> .
SB 83	This LSR diverts a portion of Video Lottery Terminals proceeds to fund retirement benefits for group II members of the retirement system.	Lang	Senate Ways and Means Committee public hearing held 2/5/25. No action taken.
SB 242	Relative to the cost-of-living adjustments for certain group II retirees in the New Hampshire retirement system.	Sen. Bill Gannon	Senate Finance public hearing scheduled for 2/11/25 at 1:55 pm in SH Rm. 103.
	stration;		
	<b>Location Key:</b> LOB = Legislative Off	ice Building; SH = State	e House.
	OTP – Ought to Pass; ITL – In	nexpedient to Legislate	

	OTHER BILLS OF	' INTEREST	
BILL #	BRIEF DESCRIPTION	PRIMARY SPONSOR	STATUS
HB 66	Amends 91-A (1) allows any person to invoke the right to know law, (2) includes circulated preliminary drafts as disclosable, (3) allows persons to request documents in either paper or electronic form,	Rep. Bob Lynn	House Judiciary Committee held public hearing. Executive session held 1/30/25.
HB 74	Amends 91-A: (1) defining the term citizen and (2) includes preliminary drafts circulated to a quorum of a majority of a public body as disclosable documents.	Rep. Jess Edwards	1/30/25: House Judiciary Committee voted to recommend ITL, 13-4 The recommendation will be voted on by the full House at a future date.
HB 80	Amends 91-A: (1) allows participation other than in-person when "unavoidable;" (2) requires physical presence is necessary for voting.	Rep. Len Turcotte	1/30/25: House Judiciary Committee voted to recommend ITL, 13-4 The recommendation will be voted on by the full House at a future date.
HB 195	Relative to the expectation of privacy in the collection and use of personal information.	Rep. Bob Lynn	House Judiciary Committee public hearing scheduled for 3/5/25 at 10:15 am in LOB 206
HB 456	Restricts state employees (1) to providing information to legislative committee, and (2) from giving positions in support of or opposition.	Rep. Potenza	1/23/25: House Legislative Committee hearing held.
HB 522	Relative to the expectation of privacy in personal information maintained by the state.	Rep. Keith Eft	House Judiciary Committee public hearing for 3/5/25 at 11 am in LOB 206
HB 765	Consolidating school administrative units.	Rep. Dan McGuire	Education Policy and Admin Committee scheduled public hearing for 2/10/25 at 10:45 am LOB 205.
SB 148	Prohibiting those convicted of murder from financially profiting from the death of the victim.	Sen. Victoria Sullivan	Introduced 1/9/25 and referred to Senate Judiciary Committee.

SB 181	Relative to workers' compensation for firefighters with cancer.	Sen. Rebecca Perkins Kwoka	Senate ED&A Committee public hearing for 2/5/25 at 9:45 am in SH 103
SB 199	Relative to establishing a new recruitment and retention program for the new NH state troopers.	Sen. David Watters	2/5/25: Senate ED&A Committee held public hearing.
SB 201	Relative to classified and unclassified positions.	Sen. Daniel Innis	2/6/25: Senate ED&A Committee voted to recommend <i>OTP with Amendment,</i> 5-0. The recommendation will be voted on by the full Senate at a future date.

# 2025 Legislative Schedule

### SENATE

Tuesday, January 8, 2025	Deadline for prime sponsors to sign off on legislation.
Thursday, January 10, 2025	Deadline for co-sponsors to sign off on legislation.
Monday, February 24, 2025	Friday, February 28, 2025 SENATE BREAK.
Thursday, March 6, 2025	Deadline for Policy Committees to ACT on all Senate bills with a fiscal impact, except bills exempted pursuant to Senate Rule 4-5.
Thursday, March 27, 2025	CROSSOVER – Deadline to ACT on all Senate bills.
Thursday, May 15, 2025	Deadline for Policy Committees to ACT on all House bills with a fiscal impact, except bills exempted pursuant to Senate Rule 4-5.
Thursday, June 5, 2025	Deadline to ACT on all House bills.
Thursday, June 12, 2025	Deadline to FORM Committees of Conference.
Thursday, June 19, 2025	Deadline to SIGN Committee of Conference Reports.
Thursday, June 26, 2025	Deadline to ACT on Committee of Conference Reports to act on Committee of Conference reports

### HOUSE

Friday, January 24, 2025	Last day to introduce House Bills Last day to amend House Rules by majority vote
Thursday, March 6, 2025	Last day to report HBs going to a second committee
Thursday, March 13, 2025	Last day to act on HBs going to a second committee
Thursday, March 20, 2025	Last day to report all HBs not in a second committee, except budget bills
Thursday, March 27, 2025	Last day to act on HBs not in a second committee, except budget bills
Thursday, April 3, 2025	Last day to report all remaining HBs Last day to report list of retained HBs
Thursday, April 10, 2025	CROSSOVER Last day to act on all bills
Thursday, May 8, 2025	Last day to report Senate Bills going to a second committee
Thursday, May 15, 2025	Last day to act on SBs going to a second committee
Thursday, May 29, 2025	Last day to report all remaining SBs Last day to report list of retained SBs
Thursday, June 5, 2025	Last day to act on SBs
Thursday, June 12, 2025	Last day to form Committees of Conference
Thursday, June 19, 2025	Last day to sign Committee of Conference reports (4 p.m.)
Thursday, June 26, 2025	Last day

### **BENEFITS COMMITTEE**

#### New Hampshire Retirement System Benefits Committee Meeting

Consent Agenda December 3, 2024

#### **Disability Application Recommendations**

- 1. J.A. Grant accidental disability retirement (ADR) to this group I member who worked for the State of New Hampshire and has 8 years and 10 months of creditable service, based on medical evidence that supports his claim for permanent incapacity from his work duties.
- 2. D.H. Grant accidental disability retirement (ADR) to this group I member who worked for a political subdivision and has 8 years and 1 month of creditable service, based on medical evidence that supports his claim for permanent incapacity from his work duties.
- 3. J.P. Grant accidental disability retirement (ADR) to this group II member who worked for a political subdivision and has 18 years and 6 months of creditable service, based on medical evidence that supports his claim for permanent incapacity from his work duties.
- 4. A.S. Grant accidental disability retirement (ADR) to this group I member who worked for a political subdivision and has 5 years and 6 months of creditable service, based on medical evidence that supports her claim for permanent incapacity from her work duties.
- 5. R.S. Grant accidental disability retirement (ADR) to this group II member who worked for a political subdivision and has 23 years of creditable service, based on medical evidence that supports his claim for permanent incapacity from his work duties.

#### New Hampshire Retirement System Benefits Committee Meeting

Consent Agenda January 7, 2025

#### **Disability Application Recommendations**

- 1. D.D. Grant violent accidental disability retirement (VADR) to this group II member who worked for a political subdivision and has 9 years and 1 month of creditable service, based on medical evidence that supports his claim for permanent incapacity from his work duties due to a medical condition, and for whom the Commissioner of Safety has certified the incapacitating event meets the criteria of a violent attack.
- 2. T.H. Grant ordinary disability retirement (ODR) to this group I member who worked for a political subdivision and has 19 years of creditable service, based on medical evidence that supports his claim for permanent incapacity from his work duties due to a medical condition.
- 3. W.L. Grant violent accidental disability retirement (VADR) to this group II member who worked for a political subdivision and has 2 years and 4 months of creditable service, based on medical evidence that supports his claim for permanent incapacity from his work duties due to a medical condition, and for whom the Commissioner of Safety has certified the incapacitating event meets the criteria of a violent attack.
- 4. J.L. Grant ordinary disability retirement (ODR) to this group I member who worked for a political subdivision and has 19 years and 3 months of creditable service, based on medical evidence that supports her claim for permanent incapacity from her work duties due to a medical condition.

### PERSONNEL PERFORMANCE & COMPENSATION COMMITTEE

Oral Presentation Only

### AD HOC REAL ESTATE COMMITTEE

Oral Presentation Only

# Callan

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.

#### February 2025

### 2025 Capital Markets Assumptions

Capital Markets Research Group

Angel Haddad Fund Sponsor Consulting

Britt Murdoch Fund Sponsor Consulting

Jay Kloepfer Capital Market Research



Summary

# Callan's Capital Markets Assumptions: 10 Years (2025–2034)

Key changes from 2024

### Summary of important changes for 2025 Capital Markets Assumptions

- Cash return held constant at 3.0%
- Core fixed income return reduced by 50 bps, from 5.25% to 4.75%
- > Public equity returns reduced 20–30 bps; equity risk premium over cash narrowed and over fixed income widened slightly
- Inflation held at 2.5%
- > Private markets returns reduced commensurate with public equity, excluding real estate; hedge funds reflect starting cash return

### Allocations within equity reflect neutral weights to the broad markets

- Efficient SMID cap weight set to 15% of broad U.S. equity
- Efficient emerging market equity weight set to 30% of global ex-U.S. equity
- Efficient U.S. / global ex-U.S. equity set to 60/40 neutral weight (not a change, but the market has now caught up to us!)

### Broadened set of diversifying asset classes to consider

- Private credit
- Private infrastructure
- Inflation-sensitive equity REITs, natural resources, global listed infrastructure

### NHRS

- Increased target allocation to Private Credit from 5% to 10%
- New 5% target allocation to Infrastructure
- Reduced public equity allocation from 50% to 40% to fund Private Credit and Infrastructure allocation
- Expected return for the next 10 years reduced from 7.65% in 2024 to 7.30% in 2025 with a similar level of risk
- Expected return for the next 20 years reduced from 7.80% in 2024 to 7.45% in 2025 with a similar level of risk

# Customized NHRS Capital Market Projections – 10-Year Time Horizon

### NHRS Asset Allocation Model 2025-2034

			PROJECTE	PROJECTED RISK	
Asset Class	Prior Target Weight	New Target Weight	Single-Period Arithmetic Return	10-Year Geometric Return	Annualized Standard Deviation
Public Equity	50.0%	40.0%			
Broad US Equity (1)	30.0%	24.0%	8.70%	7.35%	17.35%
Global Ex-US Equity (2)	20.0%	16.0%	9.40%	7.45%	21.25%
Fixed Income	25.0%	25.0%			
Universal Fixed Income (3)	25.0%	25.0%	4.90%	4.85%	4.30%
Private Equity	10.0%	10.0%			
Private Equity	10.0%	10.0%	11.80%	8.50%	27.60%
Private Credit	5.0%	10.0%			
Private Credit	5.0%	10.0%	8.35%	7.25%	15.70%
Private Real Estate	10.0%	10.0%			
Private Real Estate	10.0%	10.0%	7.15%	6.25%	14.00%
Private Infrastructure	0.0%	5.0%			
Private Infrastructure (new)	0.0%	5.0%	7.40%	6.35%	15.20%
Cash Equivalents	0.0%	0.0%			
Cash Equivalents	0.0%	0.0%	3.00%	3.00%	0.90%
Inflation				2.50%	1.60%
Total Fund	100.0%	100.0%			
Single-Period Arithmetic Return	8.05%	7.90%			
10-Year Geometric Return	7.30%	7.30%			
Annualized Standard Deviation	12.70%	12.00%			

(1) Broad US equity = 85% large cap, 15% mid and small cap

(2) Global ex-US equity = 70% developed markets, 30% emerging markets

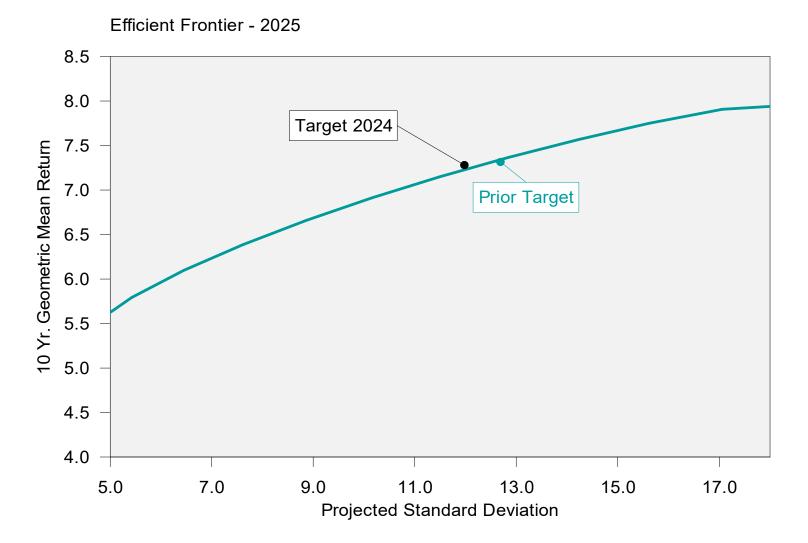
(3) NHRS fixed income benchmarked to the Bloomberg Universal; modeled as 96% Barclays Aggregate, 4% high yield

#### New target projected return of 7.30% compounded over 10 years, at a risk (standard deviation) of 12.0%

Source: Callan LLC



### **2025 Efficient Frontier – Prior and New Target**



Source: Callan LLC



# Customized NHRS Capital Market Projections – 20-Year Time Horizon

### NHRS Asset Allocation Model 2024-2053

			PROJECTE	D RETURN	PROJECTED RISK
Asset Class	Prior Target Weight	New Target Weight	Single-Period Arithmetic Return	20-Year Geometric Return	Annualized Standard Deviation
Public Equity	50.0%	40.0%			
Broad US Equity (1)	30.0%	24.0%	8.90%	7.55%	17.35%
Global Ex-US Equity (2)	20.0%	16.0%	9.65%	7.65%	21.25%
Fixed Income	25.0%	25.0%			
Universal Fixed Income (3)	25.0%	25.0%	5.00%	4.90%	4.30%
Private Equity	10.0%	10.0%			
Private Equity	10.0%	10.0%	12.00%	8.65%	27.60%
Private Credit	5.0%	10.0%			
Private Credit	5.0%	10.0%	8.40%	7.25%	15.70%
Private Real Estate	10.0%	10.0%			
Private Real Estate	10.0%	10.0%	7.35%	6.45%	14.00%
Private Infrastructure	0.0%	5.0%			
Private Infrastructure (new)	0.0%	5.0%	7.70%	6.65%	15.20%
Cash Equivalents	0.0%	0.0%			
Cash Equivalents	0.0%	0.0%	3.00%	3.00%	0.90%
Inflation				2.50%	1.60%
Total Fund	100.0%	90.0%			
Single-Period Arithmetic Return	8.20%	8.10%			
20-Year Geometric Return	7.50%	7.45%			
Annualized Standard Deviation	12.70%	12.00%			

(1) Broad US equity = 85% large cap, 15% mid and small cap

(2) Global ex-US equity = 70% developed markets, 30% emerging markets

(3) NHRS fixed income benchmarked to the Bloomberg Universal; modeled as 96% Barclays Aggregate, 4% high yield

### New target projected return of 7.45% compounded over 30 years, at a risk (standard deviation) of 12.0%

Source: Callan LLC





# **Summary of 2025 Projections**

# Why Make Capital Market Projections?

### Guiding objectives and process

### Cornerstone of a prudent process is a long-term strategic investment plan

- Capital market projections are key elements set reasonable return and risk expectations for the appropriate time horizon
- Projections represent our best thinking regarding the long-term (10-year) outlook, recognizing our median projections represent the midpoint of a range, rather than a specific number
- > Develop results that are readily defensible both for individual asset classes and for total portfolios
- Be conscious of the level of change suggested in strategic allocations for long-term investors: DB plan sponsors, foundations, endowments, trusts, DC participants, families and individuals
- ▶ Reflect common sense and recent market developments, within reason

### Callan's forecasts are informed by current market conditions, but are not built directly from them

> Balance recent, immediate performance and valuation against long-term equilibrium expectations

### How Are Capital Markets Projections Constructed?

### Guiding objectives and process

### Underlying beliefs guide the development of the projections:

- An initial bias toward long-run averages
- A conservative bias
- An awareness of risk premiums
- > A presumption that markets are ultimately clear and rational

Reflect our beliefs that long-term equilibrium relationships between the capital markets and lasting trends in global economic growth are key drivers to setting capital markets expectations

Long-term compensated risk premiums represent "beta" – exposure to each broad market, whether traditional or "exotic," with limited dependence on successful realization of alpha

### The projection process is built around several key building blocks:

- > Advanced modeling at the individual asset class level (e.g., a detailed bond model, an equity model)
- A path for interest rates and inflation
- ► A cohesive economic outlook
- > A framework that encompasses Callan beliefs about the long-term operation and efficiencies of the capital markets

## How Are Capital Market Projections Constructed?

### Projections are 10-year forward-looking, representing a medium to long-term planning horizon:

Differs from the actuarial assumptions, which tend to reflect longer-term horizons of 30-40 years

### Projections consist of return and two measures that contribute to portfolio volatility: standard deviation and correlation

### Cover most broad asset classes and inflation

Broad U.S. equity

- Large cap
- Small/mid cap

Global ex-U.S. equity

- Developed market
- Emerging market
- U.S. fixed income
- Short duration
- Core U.S. fixed
- ► TIPS
- ► High yield
- Long duration (government, credit and G/C)
- ► Global ex-U.S. fixed income

Real estate

Alternative investments: private equity, hedge funds, private credit

Cash

Inflation

# Callan

# **2025 Risk and Returns Assumptions**

Summary of Callan's Long-Term Capital Markets Assumptions (2025–2034)

		Projecte	d Return		Projected Risk	
Asset Class	Index	1-Year Arithmetic	10-Year Geometric*	Real	Standard Deviation	Projected Yield**
Equities						
Broad U.S. Equity	Russell 3000	8.70%	7.35%	4.85%	17.35%	1.70%
Large Cap U.S. Equity	S&P 500	8.50%	7.25%	4.75%	17.00%	1.75%
Smid Cap U.S. Equity	Russell 2500	9.60%	7.45%	4.95%	22.00%	1.50%
Global ex-U.S. Equity	MSCI ACWI ex USA	9.45%	7.45%	4.95%	21.25%	3.45%
Developed ex-U.S. Equity	MSCI World ex USA	9.05%	7.25%	4.75%	20.15%	3.50%
Emerging Market Equity	MSCI Emerging Markets	10.30%	7.45%	4.95%	25.65%	3.30%
Fixed Income						
Short Duration Gov/Credit	Bloomberg 1-3 Year Gov/Credit	4.05%	4.00%	1.50%	2.40%	3.65%
Core U.S. Fixed	Bloomberg Aggregate	4.85%	4.75%	2.25%	4.40%	4.60%
Long Government	Bloomberg Long Gov	5.65%	4.80%	2.30%	13.75%	4.60%
Long Credit	Bloomberg Long Credit	6.05%	5.40%	2.90%	11.90%	5.90%
Long Government/Credit	Bloomberg Long Gov/Credit	5.85%	5.20%	2.70%	11.75%	5.30%
TIPS	Bloomberg TIPS	4.70%	4.55%	2.05%	5.40%	4.30%
High Yield	Bloomberg High Yield	6.65%	6.00%	3.50%	11.75%	8.15%
Global ex-U.S. Fixed	Bloomberg Global Agg ex US	3.30%	2.85%	0.35%	9.80%	2.80%
Emerging Market Sovereign Debt	EMBI Global Diversified	5.85%	5.35%	2.85%	10.65%	7.40%
Alternatives						
Core Real Estate	NCREIF ODCE	7.15%	6.25%	3.75%	14.00%	4.00%
Private Infrastructure	MSCI GI Infra/FTSE Dev Core 50/50	7.40%	6.35%	3.85%	15.20%	4.90%
Private Equity	Cambridge Private Equity	11.80%	8.50%	6.00%	27.60%	0.00%
Private Credit	Cambridge Senior Debt Index	8.35%	7.25%	4.75%	15.70%	7.25%
Hedge Funds	Callan Hedge FOF Database	6.00%	5.70%	3.20%	8.20%	0.00%
Commodities	Bloomberg Commodity	5.40%	3.90%	1.40%	18.05%	3.00%
Cash Equivalents	90-Day T-Bill	3.00%	3.00%	0.50%	0.90%	3.00%
Inflation	CPI-U		2.50%		1.60%	

\* Geometric returns are derived from arithmetic returns and the associated risk (standard deviation).

\*\* Projected Yields represent the expected 10-year average yield

# 2025 vs. 2024 Risk and Returns Assumptions

#### Summary of Callan's Long-Term Capital Markets Assumptions (2025–2034)

		Pr	ojected Return	ı	Projected Risk		2024–2033			
Asset Class	Index	1-Year Arithmetic	10-Year Geometric*	Real	Standard Deviation	Projected Yield**	1-Year Arithmetic	10-Year Geometric*	Standard Deviation	
Equities										
Broad U.S. Equity	Russell 3000	8.70%	7.35%	4.85%	17.35%	1.70%	8.85%	7.65%	17.40%	
Large Cap U.S. Equity	S&P 500	8.50%	7.25%	4.75%	17.00%	1.75%	8.70%	7.50%	17.00%	
Smid Cap U.S. Equity	Russell 2500	9.60%	7.45%	4.95%	22.00%	1.50%	9.80%	7.70%	22.00%	
Global ex-U.S. Equity	MSCI ACWI ex USA	9.45%	7.45%	4.95%	21.25%	3.45%	9.65%	7.65%	21.40%	
Developed ex-U.S. Equity	MSCI World ex USA	9.05%	7.25%	4.75%	20.15%	3.50%	9.25%	7.50%	20.15%	
Emerging Markets Equity	MSCI Emerging Markets	10.30%	7.45%	4.95%	25.65%	3.30%	10.65%	7.70%	25.60%	
Fixed Income										
Short Duration Gov/Credit	Bloomberg 1-3 Year Gov/Credit	4.05%	4.00%	1.50%	2.40%	3.65%	4.25%	4.25%	2.40%	
Core U.S. Fixed	Bloomberg Aggregate	4.85%	4.75%	2.25%	4.40%	4.60%	5.25%	5.25%	4.25%	
Long Government	Bloomberg Long Gov	5.65%	4.80%	2.30%	13.75%	4.60%	6.20%	5.40%	13.75%	
Long Credit	Bloomberg Long Credit	6.05%	5.40%	2.90%	11.90%	5.90%	6.85%	6.30%	11.90%	
Long Government/Credit	Bloomberg Long Gov/Credit	5.85%	5.20%	2.70%	11.75%	5.30%	6.55%	6.00%	11.70%	
TIPS	Bloomberg TIPS	4.70%	4.55%	2.05%	5.40%	4.30%	5.10%	5.05%	5.40%	
High Yield	Bloomberg High Yield	6.65%	6.00%	3.50%	11.75%	8.15%	7.30%	6.80%	11.75%	
Global ex-U.S. Fixed	Bloomberg Global Agg ex US	3.30%	2.85%	0.35%	9.80%	2.80%	3.60%	3.15%	9.80%	
Emerging Markets Sov Debt	EMBI Global Diversified	5.85%	5.35%	2.85%	10.65%	7.40%	6.75%	6.35%	10.65%	
Alternatives										
Core Real Estate	NCREIF ODCE	7.15%	6.25%	3.75%	14.00%	4.00%	6.85%	6.00%	14.00%	
Private Infrastructure	MSCI GI Infra/FTSE Dev Core 50/50	7.40%	6.35%	3.85%	15.20%	4.90%	7.30%	6.35%	15.20%	
Private Equity	Cambridge Private Equity	11.80%	8.50%	6.00%	27.60%	0.00%	12.15%	8.75%	27.60%	
Private Credit	Cambridge Senior Debt Index	8.35%	7.25%	4.75%	15.70%	7.25%	8.40%	7.40%	15.70%	
Hedge Funds	Callan Hedge FOF Database	6.00%	5.70%	3.20%	8.20%	0.00%	6.25%	6.05%	8.20%	
Commodities	Bloomberg Commodity	5.40%	3.90%	1.40%	18.05%	3.00%	5.45%	3.90%	18.05%	
Cash Equivalents	90-Day T-Bill	3.00%	3.00%	0.50%	0.90%	3.00%	3.00%	3.00%	0.90%	
Inflation	CPI-U		2.50%		1.60%			2.50%	1.60%	

\* Geometric returns are derived from arithmetic returns and the associated risk (standard deviation).

\*\* Projected Yields represent the expected 10-year average yield

Source: Callan





# **Current Market Conditions**

### The Recession Never Came in 2024; Now What?

#### A recession stayed away after we were sure it would show up.

The economy showed some signs of slowing during 2024, but GDP growth persisted, and the job market proved resilient despite some head fakes.

- The Federal Reserve's process of rate hikes, from elevated inflation, and spreading geopolitical turmoil barely dented the U.S. economic engine.
- Job openings trended down over 2024, and monthly job gains faltered a couple of times, but November (+212,000) and December (+256,000) saw a bounce back after the hurricanes in the southeast hit in October.
- > Real incomes rose and real wage growth boosted consumer incomes and spending.
- GDP growth hit 3% in 2Q and 3.1% in 3Q, slowing to 2.3% in 4Q, but it still notched an annual rate of 2.5%, just below the 2.9% notched in 2023.

### The Fed completed its mission to raise interest rates to fight inflation and began cutting rates in September 2024.

Current target range of 4.25%-4.5%.

Inverted yield curve remains in place, but it's been inverted since 2022.

#### Is recession still inevitable, and if so, when?

Strong GDP growth suggests no easing in tight labor markets; the prospect for continued inflationary pressure from the labor market is high.

Getting inflation down to the Fed's stated goal of 2% will take time, and some discomfort. Squeezing out the last of excess inflation will require a period of below trend growth, a loosening of the labor market, and the pain of a rise in unemployment.

# Equity Markets Up Sharply in 2024

### Stocks have recovered losses of 2022; fixed income still lags

### SS&P 500 climbed 25% in 2024

U.S. large cap substantially outperformed U.S. small cap, developed ex-U.S. markets, and emerging markets. Technology and AI drove the S&P 500.

### Weak 4Q for core fixed income

- The Bloomberg Aggregate fell 3.1%. Long duration and non-U.S. bonds saw even greater declines.
- Interest rates remain volatile as the markets assess how the Fed will continue with easing.
- CPI-U came in at 2.9% (year-overyear) through December, up from 3Q, but with a welcome decline in the core figure, which rose 3.2%.

# Solid economic growth through 2024

 3Q GDP came in at a surprisingly strong 3.1%, after another surprise in 2Q, and saw 2.3% growth in 4Q. Consumer spending continues to drive GDP growth.

Returns for Periods ended 12	31/24					
	Quarter	1 Year	3 Years	5 Years	10 Years	25 Years
U.S. Equity						
Russell 3000	2.63	23.81	8.01	13.86	12.55	7.84
S&P 500	2.41	25.02	8.94	14.53	13.10	7.70
Russell 2000	0.33	11.54	1.24	7.40	7.82	7.55
Global ex-U.S. Equity						
MSCI World ex USA	-7.43	4.70	1.91	5.10	5.26	3.78
MSCI Emerging Markets	-8.01	7.50	-1.92	1.70	3.64	
MSCI ACWI ex USA Small Cap	-7.66	3.36	-1.47	4.30	5.66	6.23
Fixed Income						
Bloomberg Aggregate	-3.06	1.25	-2.41	-0.33	1.35	3.94
90-day T-Bill	1.17	5.25	3.89	2.46	1.77	1.91
Bloomberg Long Gov/Credit	-7.42	-4.15	-9.20	-3.26	0.99	5.36
Bloomberg Global Agg ex-US	-6.84	-4.22	-6.28	-3.37	-0.90	2.45
Real Estate						
NCREIF Property Index	0.90	0.43	-0.82	3.13	5.66	7.58
FTSE Nareit Equity	-6.21	8.73	-2.20	4.27	5.73	9.84
Alternatives						
Cambridge Private Equity*	2.68	7.93	2.75	14.27	13.40	12.39
Cambridge Senior Debt*	3.35	10.18	7.08	7.89	7.31	4.59
HFRI Fund Weighted	1.49	9.83	4.41	7.00	5.26	5.57
Bloomberg Commodity	-0.45	5.38	4.05	6.77	1.28	2.15
Gold Spot Price	-0.69	27.47	13.04	11.64	8.35	9.24
Inflation: CPI-U*	0.10	2.89	4.22	4.20	3.00	2.54

Returns for Periods ended 12/31/24

\*Cambridge Private Equity and Cambridge Senior Debt data as of 9/30/24. Returns greater than one year are annualized. Sources: Bloomberg, Callan, Cambridge, FTSE Russell, HFRI, MSCI, NCREIF, S&P Dow Jones Indices



### The Callan Periodic Table of Investment Returns

Annual Returns for Key Indices Ranked in Order of Performance (2005–2024)

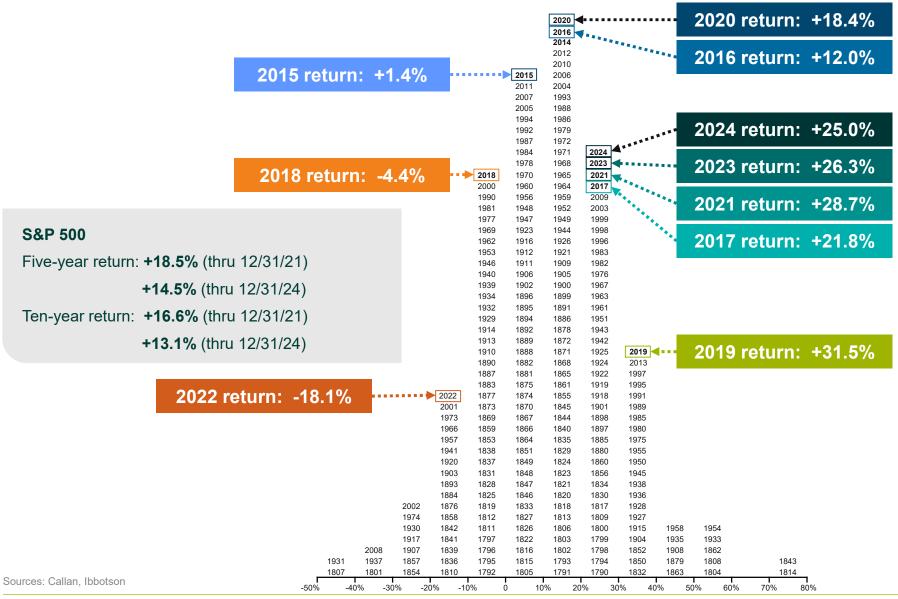
2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Emerging	Real	Emerging	U.S.	Emerging	Small	U.S.	Real	Small	Real	Large	Small	Emerging	Cash	Large	Small	Large	Cash	Large	Large
Market	Estate	Market	Fixed	Market	Cap	Fixed	Estate	Сар	Estate	Сар	Cap	Market	Equivalent	Cap	Cap	Сар	Equivalent	Cap	Сар
Equity		Equity	Income	Equity	Equity	Income		Equity		Equity	Equity	Equity		Equity	Equity	Equity		Equity	Equity
34.00%	42.12%	39.38%	5.24%	78.51%	26.85%	7.84%	27.73%	38.82%	15.02%	1.38%	21.31%	37.28%	1.87%	31.49%	19.96%	28.71%	1.46%	26.29%	25.02%
Real	Emerging	Developed	Global	High Yield	Real	High Yield	Emerging	Large	Large	U.S.	High Yield	Developed	U.S.	Small	Large	Real	High Yield	Developed	Small
Estate	Market	ex-U.S.	ex-U.S.		Estate		Market	Сар	Cap	Fixed		ex-U.S.	Fixed	Cap	Сар	Estate		ex-U.S.	Сар
	Equity	Equity	Fixed				Equity	Equity	Equity	Income		Equity	Income	Equity	Equity			Equity	Equity
15.35%	32.17%	12.44%	4.39%	58.21%	19.63%	4.98%	18.23%	32.39%	13.69%	0.55%	17.13%	24.21%	0.01%	25.52%	18.40%	26.09%	-11.19%	17.94%	11.54%
Developed	Developed	Global	Cash	Real	Emerging	Global	Developed	Developed	U.S.	Cash	Large	Large	High Yield	Developed	Emerging	Small	U.S.	Small	High Yield
ex-U.S.	ex-U.S.	ex-U.S.	Equivalent	Estate	Market	ex-U.S.	ex-U.S.	ex-U.S.	Fixed	Equivalent	Сар	Сар		ex-U.S.	Market	Сар	Fixed	Сар	
Equity	Equity	Fixed			Equity	Fixed	Equity	Equity	Income		Equity	Equity		Equity	Equity	Equity	Income	Equity	
14.47%	25.71%	11.03%	2.06%	37.13%	18.88%	4.36%	16.41%	21.02%	5.97%	0.05%	11.96%	21.83%	-2.08%	22.49%	18.31%	14.82%	-13.01%	16.93%	8.19%
Large	Small	U.S.	High Yield	Developed	High Yield	Large	Small	High Yield	Small	Real	Emerging	Small	Global	Real	Global	Developed	Developed	High Yield	Emerging
Сар	Сар	Fixed		ex-U.S.		Сар	Cap		Сар	Estate	Market	Сар	ex-U.S.	Estate	ex-U.S.	ex-U.S.	ex-U.S.		Market
Equity	Equity	Income		Equity		Equity	Equity		Equity		Equity	Equity	Fixed		Fixed	Equity	Equity		Equity
4.91%	18.37%	6.97%	-26.16%	33.67%	15.12%	2.11%	16.35%	7.44%	4.89%	-0.79%	11.19%	14.65%	-2.15%	21.91%	10.11%	12.62%	-14.29%	13.44%	7.50%
Small	Large	Large	Small	Small	Large	Cash	Large	Real	High Yield	Developed	Real	Global	Large	Emerging	Developed	High Yield	Large	Emerging	Cash
Сар	Cap	Сар	Сар	Cap	Сар	Equivalent	Cap	Estate		ex-U.S.	Estate	ex-U.S.	Сар	Market	ex-U.S.		Cap	Market	Equivalent
Equity	Equity	Equity	Equity	Equity	Equity		Equity			Equity		Fixed	Equity	Equity	Equity		Equity	Equity	
4.55%	15.79%	5.49%	-33.79%	27.17%	15.06%	0.10%	16.00%	3.67%	2.45%	-3.04%	4.06%	10.51%	-4.38%	18.44%	7.59%	5.28%	-18.11%	9.83%	5.25%
Cash	High Yield	Cash	Large	Large	Developed	Small	High Yield	Cash	Cash	Small	Developed	Real	Real	High Yield	U.S.	Cash	Global	Real	Developed
Equivalent		Equivalent	Сар	Cap	ex-U.S.	Cap		Equivalent	Equivalent	Cap	ex-U.S.	Estate	Estate		Fixed	Equivalent	ex-U.S.	Estate	ex-U.S.
			Equity	Equity	Equity	Equity				Equity	Equity				Income		Fixed		Equity
3.07%	11.85%	5.00%	-37.00%	26.47%	8.95%	-4.18%	15.81%	0.07%	0.03%	-4.41%	2.75%	10.36%	-5.63%	14.32%	7.51%	0.05%	-18.70%	9.67%	4.70%
High Yield	Global	High Yield	Developed	Global	U.S.	Real	U.S.	U.S.	Emerging	High Yield	U.S.	High Yield	Small	U.S.	High Yield	U.S.	Emerging	Global	U.S.
	ex-U.S.		ex-U.S.	ex-U.S.	Fixed	Estate	Fixed	Fixed	Market		Fixed		Cap	Fixed		Fixed	Market	ex-U.S.	Fixed
	Fixed		Equity	Fixed	Income		Income	Income	Equity		Income		Equity	Income		Income	Equity	Fixed	Income
2.74%	8.16%	1.87%	-43.56%	7.53%	6.54%	-6.46%	4.21%	-2.02%	-2.19%	-4.47%	2.65%	7.50%	-11.01%	8.72%	7.11%	-1.54%	-20.09%	5.72%	1.25%
U.S.	Cash	Small	Real	U.S.	Global	Developed	Global	Emerging	Global	Global	Global	U.S.	Developed	Global	Cash	Emerging	Small	U.S.	Real
Fixed	Equivalent	Сар	Estate	Fixed	ex-U.S.	ex-U.S.	ex-U.S.	Market	ex-U.S.	ex-U.S.	ex-U.S.	Fixed	ex-U.S.	ex-U.S.	Equivalent	Market	Cap	Fixed	Estate
Income		Equity		Income	Fixed	Equity	Fixed	Equity	Fixed	Fixed	Fixed	Income	Equity	Fixed		Equity	Equity	Income	
2.43%	4.85%	-1.57%	-48.21%	5.93%	4.95%	-12.21%	4.09%	-2.60%	-3.09%	-6.02%	1.49%	3.54%	-14.09%	5.09%	0.67%	-2.54%	-20.44%	5.53%	0.94%
Global	U.S.	Real	Emerging	Cash	Cash	Emerging	Cash	Global	Developed	Emerging	Cash	Cash	Emerging	Cash	Real	Global	Real	Cash	Global
ex-U.S.	Fixed	Estate	Market	Equivalent	Equivalent	Market	Equivalent	ex-U.S.	ex-U.S.	Market	Equivalent	Equivalent	Market	Equivalent	Estate	ex-U.S.	Estate	Equivalent	ex-U.S.
Fixed	Income		Equity			Equity		Fixed	Equity	Equity			Equity			Fixed			Fixed
-8.65%	4.33%	-7.39%	-53.33%	0.21%	0.13%	-18.42%	0.11%	-3.08%	-4.32%	-14.92%	0.33%	0.86%	-14.57%	2.28%	-9.04%	-7.05%	-25.10%	5.01%	-4.22%

Sources: 
Bloomberg Aggregate
Bloomberg High Yield Bond Index
Bloomberg Global Aggregate ex US
FTSE EPRA Nareit Developed
MSCI Emerging Markets
MSCI World ex USA
Russell 2000
S&P 500
90-day T-bill

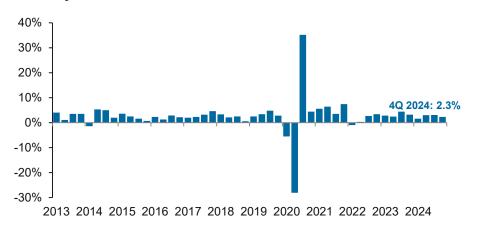
# Callan

### **Stock Market Returns by Calendar Year**

Performance in perspective: History of the U.S. stock market (234 years of returns)

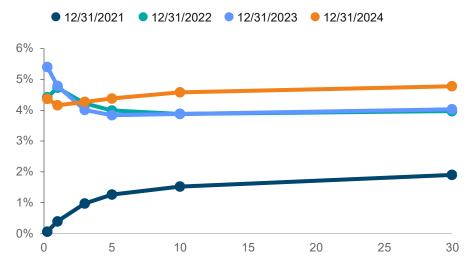


# U.S. Economy—Summary

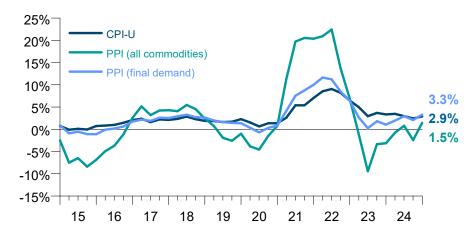


#### **Quarterly Real GDP Growth**

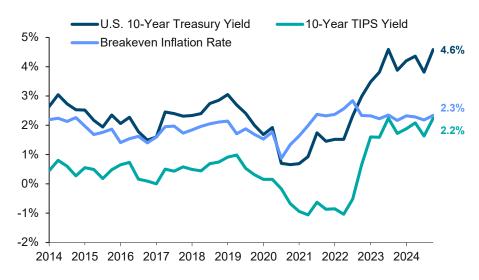
#### **U.S. Treasury Yield Curves**



#### Inflation Year-Over-Year



#### **Historical 10-Year Yields**



Sources: Bloomberg, Bureau of Labor Statistics, Callan

### Labor

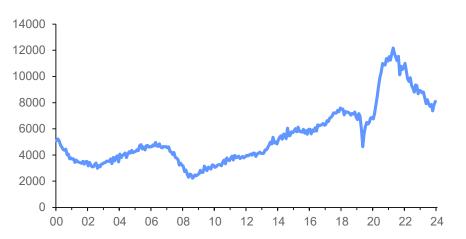
The unemployment rate was 4.1% as of December. Job openings have declined from post-COVID peaks. Unemployment claims and layoffs remain low.

It is likely that labor supply is higher than estimated due to immigration not being counted in official measures.

 Immigration accounted for roughly half of labor force growth from 2021–23.



#### Job Openings (Level in Thousands)



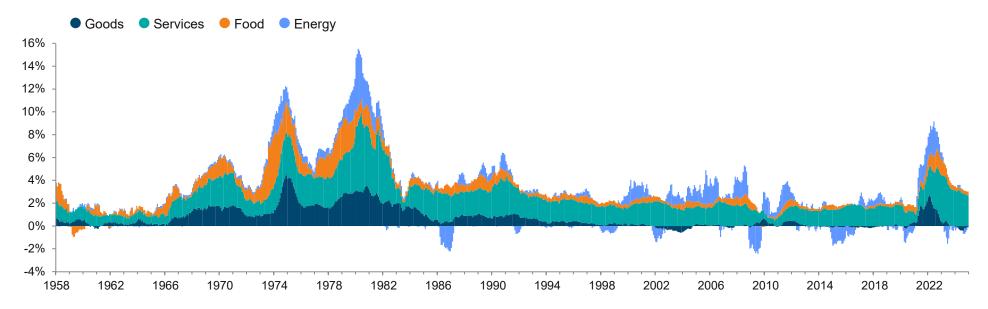
#### Job Losses (Level in Thousands) and Layoffs



Sources: FRED, U.S. Bureau of Labor Statistics (JOLTS and Unemployment), U.S. Employment and Training Administration (Initial Claims)

# **Broad Components of Inflation**

#### **Contribution to Inflation by Broad Component**



	Category					Y	ear-over-Y	'ear Chang	ge				
Category	Weight	Jan	Feb	Mar	Apr	Мау	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Headline CPI	100.0%	3.1%	3.2%	3.5%	3.4%	3.3%	3.0%	2.9%	2.5%	2.4%	2.6%	2.7%	2.9%
Food	13.6%	2.6%	2.2%	2.2%	2.2%	2.1%	2.2%	2.2%	2.1%	2.3%	2.1%	2.4%	2.5%
Energy	6.7%	-4.6%	-1.9%	2.1%	2.6%	3.7%	1.0%	1.1%	-4.0%	-6.8%	-4.9%	-3.2%	-0.5%
Core CPI	79.8%	3.9%	3.8%	3.8%	3.6%	3.4%	3.3%	3.2%	3.2%	3.3%	3.3%	3.3%	3.2%
Goods Less Food and Energy	18.9%	-0.3%	-0.3%	-0.7%	-1.3%	-1.7%	-1.8%	-1.9%	-1.9%	-1.0%	-1.0%	-0.6%	-0.5%
Services Less Energy	60.9%	5.4%	5.2%	5.4%	5.3%	5.3%	5.1%	4.9%	4.9%	4.7%	4.8%	4.6%	4.4%

Source: U.S. Bureau of Labor Statistics. Note Goods excludes food and energy goods while Services excludes energy services.



# **Contributors to Recent Inflation: Primary Categories**

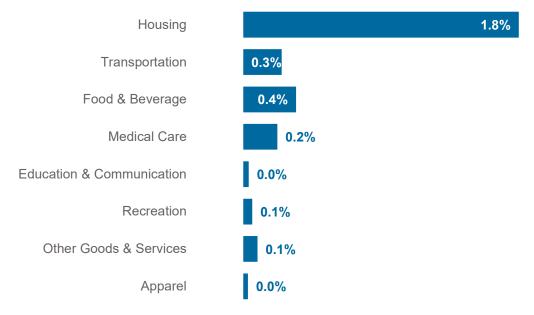
Housing is a broad category that includes Shelter, Fuels and Utilities, and Household Furnishings and Operations as subcomponents.

The Shelter sub-component makes up 36.2% of the overall index and accounted for 57% of December's increase in year-overyear headline CPI.

Energy is not shown in this view of CPI because it is a sub-component of other categories.

Energy makes up 6.7% of the index and is split roughly evenly between Housing (fuel for powering homes) and Transportation (motor fuel).





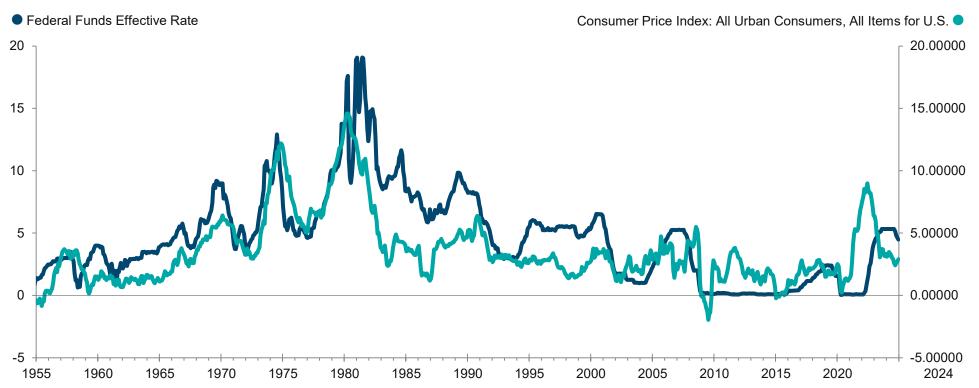
	Primary Cotogory					Ye	ear-over-Y	'ear Chan	ge				
Primary Category	Category · Weight	Jan	Feb	Mar	Apr	Мау	Jun	Jul	Aug	Sep	Oct	Nov	Dec
All Items	100.0%	3.1%	3.2%	3.5%	3.4%	3.3%	3.0%	2.9%	2.5%	2.4%	2.6%	2.7%	2.9%
Housing	45.1%	4.6%	4.5%	4.7%	4.5%	4.6%	4.4%	4.4%	4.4%	4.1%	4.2%	4.1%	4.1%
Transportation	15.9%	1.6%	2.7%	4.0%	3.5%	2.9%	1.3%	1.0%	-1.0%	-1.1%	-0.1%	0.5%	1.6%
Food & Bev	14.4%	2.6%	2.2%	2.2%	2.2%	2.1%	2.2%	2.2%	2.0%	2.2%	2.1%	2.3%	2.4%
Medical Care	8.0%	1.1%	1.4%	2.2%	2.6%	3.1%	3.3%	3.2%	3.0%	3.3%	3.3%	3.1%	2.8%
Education & Communication	5.9%	0.0%	0.4%	0.2%	0.4%	0.5%	0.7%	0.9%	1.0%	0.9%	0.8%	0.7%	0.6%
Recreation	5.3%	2.8%	2.1%	1.8%	1.5%	1.3%	1.3%	1.4%	1.6%	0.7%	1.0%	1.5%	1.1%
Other Goods & Svcs	2.9%	5.7%	4.7%	4.7%	4.3%	3.8%	4.2%	4.2%	3.9%	3.5%	3.3%	3.4%	3.3%
Apparel	2.5%	0.1%	0.0%	0.4%	1.3%	0.8%	0.8%	0.2%	0.3%	1.8%	0.3%	1.1%	1.2%

Source: U.S. Bureau of Labor Statistics



### Inflation vs. Interest Rates Over the Long Term

#### Federal Funds vs. Consumer Price Index

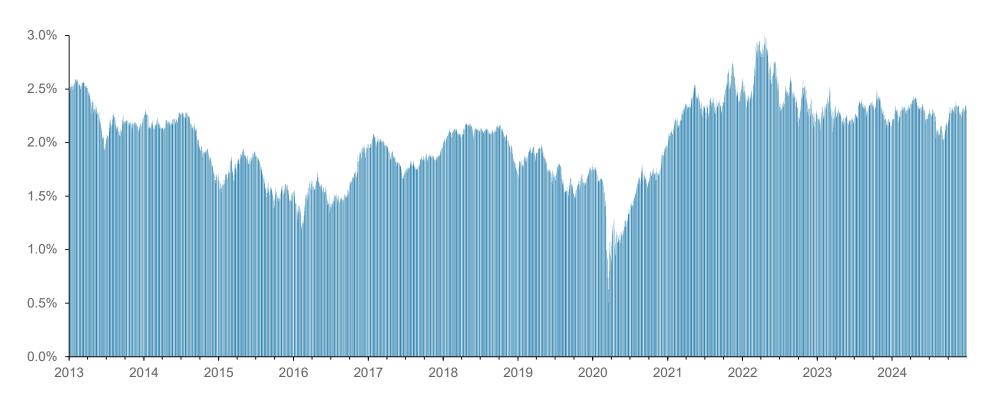


### The post-Covid inflation spike capped out at 9% in June 2022, well above the last inflation peak from 2005–08.

- The gap between inflation and the Fed Funds rate reached an unprecedented level going back to 1955 but closed quickly, as the Fed acted on rates and inflation came down.
- > Yield history suggests that the Fed Funds rate is typically above inflation, not below it, a relationship that has now been restored.

# **10-Year Breakeven Rate: Bond Market Forecast of Inflation**

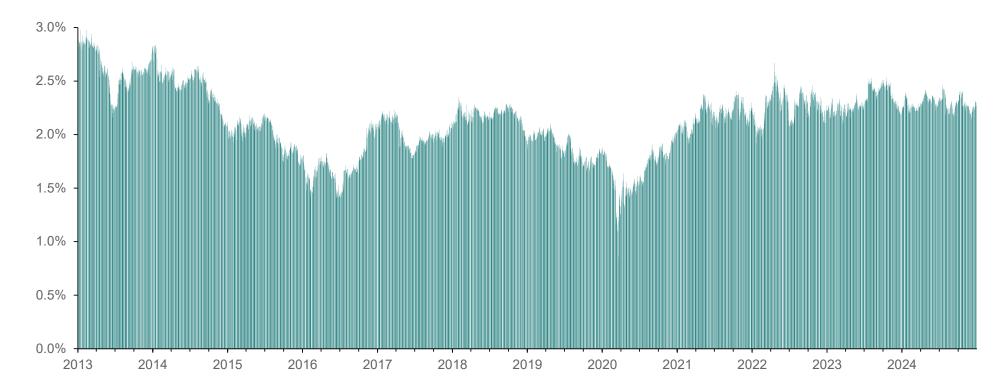
#### **10-Year Breakeven Inflation Rate**



- 10-year breakeven inflation rate is the difference in yield between the nominal 10-year Treasury and the 10-year Treasury Inflation-Protected Security (TIPS).
  - Includes current higher levels of inflation
  - Extra yield nominal Treasury would have to earn to maintain the same purchasing power as a TIPS investment.
- > Values of implied inflation reached highs of just over 3% in April 2022 but have recently ranged between 2.25% and 2.50%.

# 5-Year, 5-Year Forward Rate: Bond Market Forecast of Inflation

#### 5-Year, 5-Year Forward Inflation Expectation Rate



- ▶ The 5-year, 5-year forward rate is the bond market's estimate of the 5-year inflation rate 5 years from now.
  - Excludes current high levels of inflation
- > The market inflation expectation for the years 2030 through 2034 is between 2.25% and 2.50% after peaking at 2.7% in April 2022.

### The Fed's 'Dot Plot'

### December 18, 2024

### Federal Open Market Committee (FOMC) participants' assessments of appropriate monetary policy

- Median year-end in 2025 = 3.9% (up from 3.4% projection at September meeting)
- "Longer run" median up 10 basis points to 3.0%
  - Bias is toward higher rates; lower bound is 2.4% but higher bound is 3.9%.
- Dispersion of views widens in 2025 and beyond.
- Market expects fewer cuts in 2025 based on CME FedWatch as of January; Fed Funds expectations :
  - Majority expect no cuts through May
  - One cut by end of year has 34% probability
  - Two cuts by end of year has 31% probability

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2024	2025	2026	2027	
2024	2025	2020	2021	Longer run

Source: Federal Reserve



### The Shifting Mindset at the Fed

## Projections for the Fed Funds Rate at the end of 2025 reflect expectations for two more 0.25% cuts.

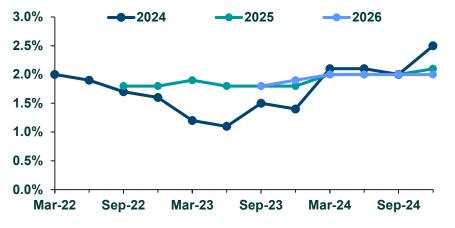
Long-term neutral rate of 3.0% expected to be hit after 2027.

## The big swing in the Fed's GDP projection reflects the surprising nature of economic resilience.

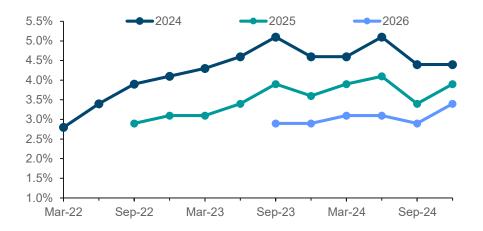
The Fed now expects 2024 GDP growth to finish at 2.5%.

## Inflation is expected to reach Fed's target of 2% in 2027.

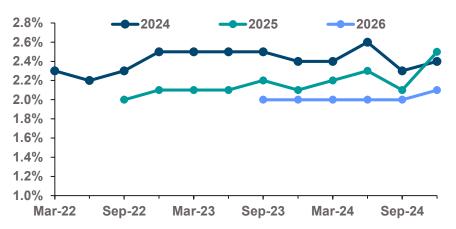
#### Fed Projection of Change in Real GDP By Fed Meeting Date and Projection Year



Fed Projection of Fed Funds Rate By Fed Meeting Date and Projection Year



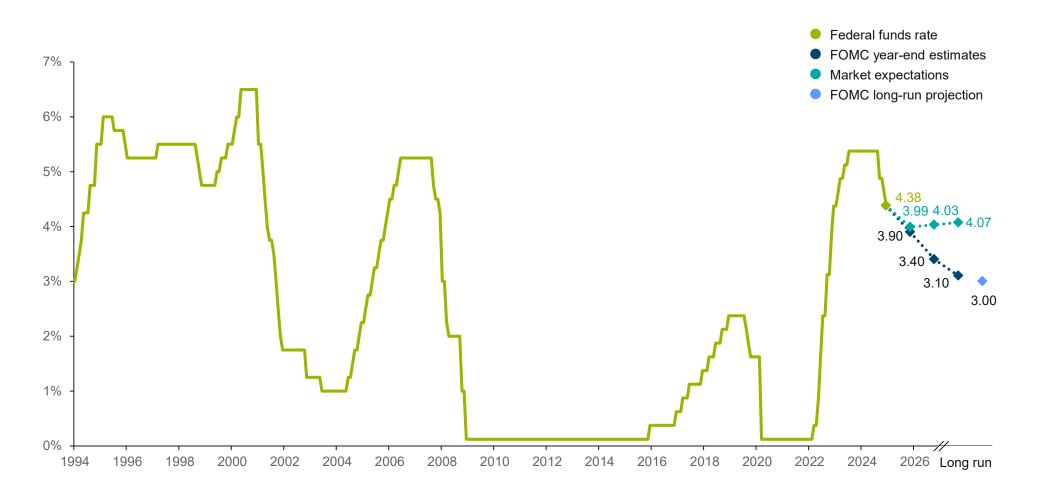
#### Fed Projection of Change in PCE Inflation By Fed Meeting Date and Projection Year



Source: Federal Reserve, Financial Times

### Market and Fed Expectations Diverging

FOMC and market expectations for the federal funds rate



Sources: Bloomberg, FactSet, Federal Reserve, J.P. Morgan Asset Management Guide to the Markets - U.S. Data are as of Jan. 9, 2025.



# Callan

## **2025 Expectations**

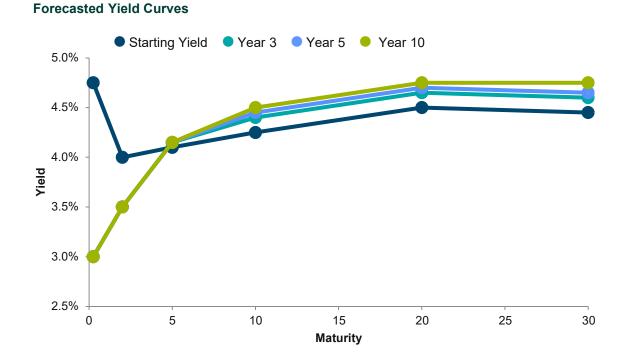
**Fixed Income** 

### **Projected Fixed Income Returns**

### 10-year projections

	Income Return	Capital + Gain/Loss	Credit + Default	+ Roll Return =		2024 Expected Return	Change vs. 2024
Cash	3.00%	0.00%	0.00%	0.00%	3.00%	3.00%	0.00%
1-3 Year Gov/Credit	3.65%	0.10%	0.00%	0.25%	4.00%	4.25%	-0.25%
1-3 Year Government	3.45%	0.10%	0.00%	0.25%	3.80%	4.15%	
1-3 Year Credit	4.05%	0.20%	-0.20%	0.25%	4.30%	4.65%	
Intermediate Gov/Credit	4.25%	0.00%	-0.10%	0.25%	4.40%	4.75%	-0.35%
Intermediate Gov	3.95%	0.00%	0.00%	0.25%	4.20%	4.45%	
Intermediate Credit	4.70%	0.00%	-0.20%	0.25%	4.75%	5.25%	
Aggregate	4.60%	0.00%	-0.10%	0.25%	4.75%	5.25%	-0.50%
Government	4.20%	0.10%	0.00%	0.25%	4.55%	4.85%	
Securitized	4.35%	0.30%	0.00%	0.25%	4.90%	5.35%	
Credit	5.30%	-0.30%	-0.30%	0.25%	4.95%	5.60%	
Long Duration Gov/Credit	5.40%	-0.60%	-0.20%	0.60%	5.20%	6.00%	-0.80%
Long Government	4.60%	-0.40%	0.00%	0.60%	4.80%	5.40%	
Long Credit	5.90%	-0.80%	-0.30%	0.60%	5.40%	6.30%	
TIPS	4.30%	0.00%	0.00%	0.25%	4.55%	5.05%	-0.50%
Global ex-U.S. Fixed	2.80%	-0.10%	-0.10%	0.25%	2.85%	3.15%	-0.30%
High Yield	8.15%	-0.30%	-2.10%	0.25%	6.00%	6.80%	-0.80%
Emerging Markets Debt	7.40%	-0.40%	-1.90%	0.25%	5.35%	6.35%	-1.00%
Bank Loans	8.20%	-0.40%	-1.70%	0.00%	6.10%	6.55%	-0.45%

### Shape of Yield Curve at Different Points in Forecast Horizon



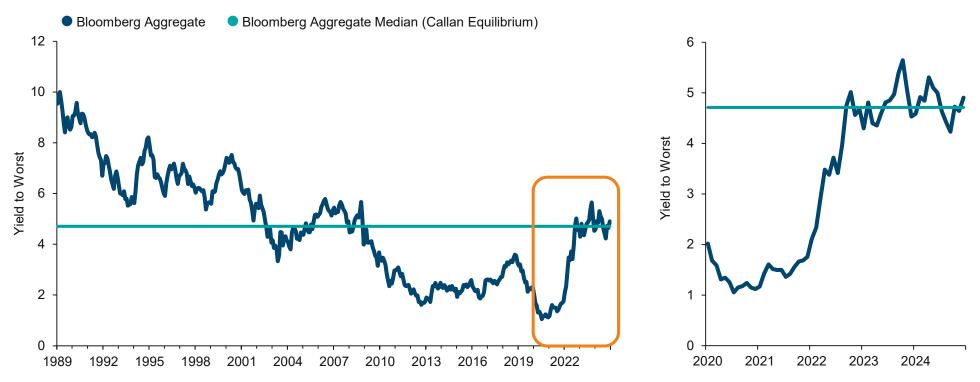
Our fixed income projections assume the yield curve returns to an upward-sloping pattern within the next few years.

Short rates fall to Callan's equilibrium while intermediate and longer rates rise to equilibrium.

	3 Month	2 Year	5 Year	10 Year	20 Year	30 Year
Forecast Year 0	4.75	4.00	4.10	4.25	4.50	4.45
Forecast Year 3	3.00	3.50	4.15	4.40	4.65	4.60
Forecast Year 5	3.00	3.50	4.15	4.45	4.70	4.65
Forecast Year 10 (Equilibrium Reached)	3.00	3.50	4.15	4.50	4.75	4.75

### **Drowning Out the Noise**

#### **Historical Yield**

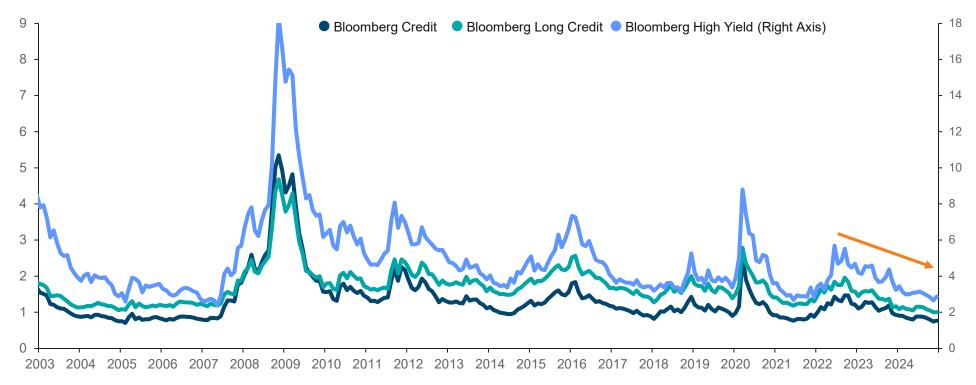


There has been a lot of rate volatility, but rates have been range-bound around our equilibrium.

We have been updating our bond assumptions to drown out the short-term noise and focus more on the longer-term trends.

### Spreads Act as a Headwind

#### Historical Option Adjusted Spreads (OAS)



Spreads are at some of the tightest levels they have been in the last 20+ years as the risk-on mentality in the stock market has carried over into bonds.

We assume spreads will widen to levels consistent with long-term history, which is a headwind to returns.

- This is akin to a valuation adjustment in equities.

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# Callan

## **2025 Expectations**

Equity

Overview

#### **Fundamental Relationship**



#### Building up U.S. equity (S&P 500) returns from long-term fundamentals, we arrive at 7.25%.

Real earnings growth is linked to real GDP growth over long horizons; we forecast U.S. real GDP of 2.50% over the next decade.

Inflation (CPI-U) is forecasted at 2.50% over the next 10 years.

- Slightly above the Fed's inflation target of 2%
  - Realized inflation over the past quarter century is 2.6%
- In line with the market-based forecast of breakeven inflation (yield difference between Treasuries and TIPS)

Income return of 2.50% from dividend yield and share buybacks

U.S. equity valuation adjustment of -0.25% as current valuations exceed historical norms

Small premium for global ex-U.S. over U.S. stems from emerging market growth potential.

### Building block model

Index	Forecasted Dividend Yield	Net Buyback Yield	Inflation	Real Earnings Growth	Valuation Adjustment	Total Expected Return
S&P 500	1.75%	0.75%	2.50%	2.50%	-0.25%	7.25%
MSCI World ex USA	3.50%	0.00%	2.00%	1.75%	0.00%	7.25%
MSCI Emerging Markets	3.30%	-2.90%	3.25%	3.80%	0.00%	7.45%

Our return expectations for U.S. large cap (S&P 500) and developed ex-U.S. markets (MSCI World ex-USA) are the same, but the paths to those returns are different.

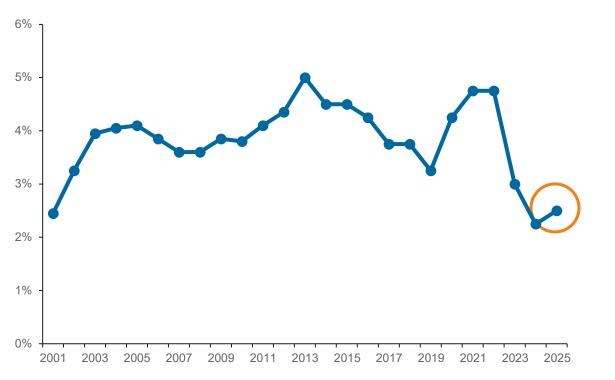
U.S. companies tend to deliver more return from earnings growth than from return of capital via dividends or buybacks.

- Developed ex-U.S. companies have the opposite relationship.
- Emerging market companies tend to deliver strong earnings growth, which is somewhat offset by net issuance of shares as these companies issue stock to support growth.

### **Callan's Equity Risk Premia Forecasts Over Time**

S&P 500 forecast minus Bloomberg Aggregate forecast

#### Forecasted Equity Risk Premium vs. Bonds



Callan's forecasted return spread between the S&P 500 and the Bloomberg Aggregate (2.50%) remains narrow.

Forecasts are annualized over 10 years.



### **Historical Equity Risk Premium Over Bonds**



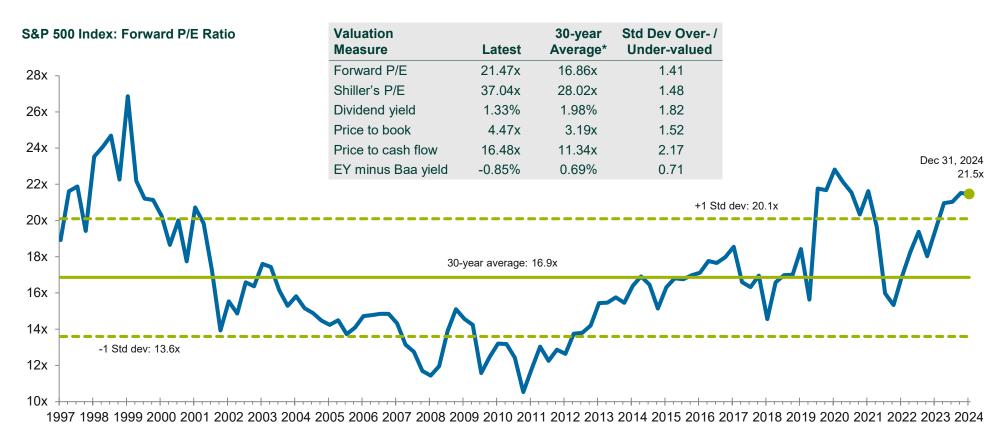
#### S&P 500 Rolling 40 Quarter Excess Return Relative to Bloomberg Aggregate

 Our 2.50% equity risk premium over core bonds is low relative to the historical average of 4.3%, but the premium has been volatile and 2.50 is within the historical range



### **U.S. Equity Market: Key Metrics**

### S&P 500 valuation measures



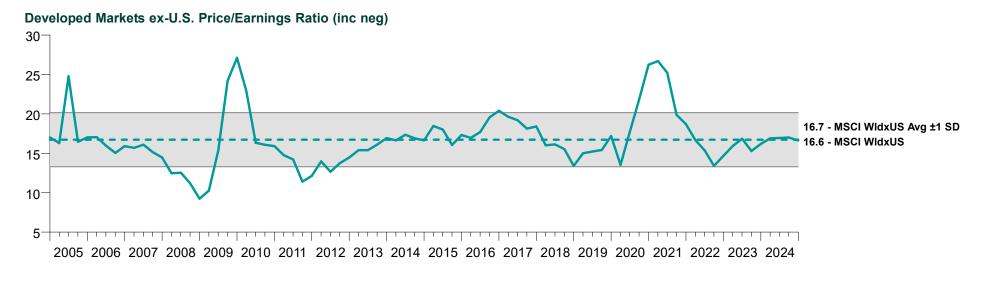
- Forward P/E (21.5) is about one standard deviation above its long-term average (16.9).

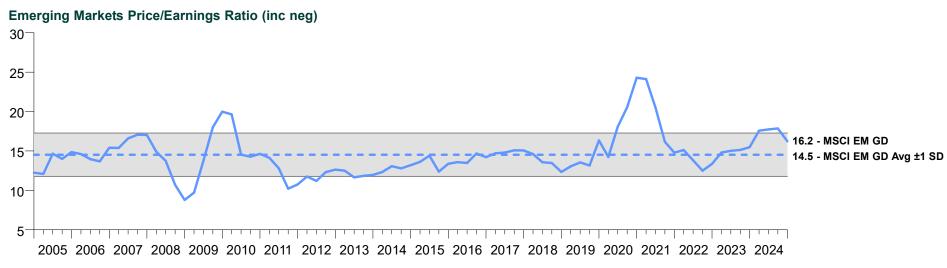
Source: FactSet, FRB, Refinitiv Datastream, Robert Shiller, Standard & Poor's, Thomson Reuters, J.P. Morgan Asset Management.

Price-to-earnings is price divided by consensus analyst estimates of earnings per share for the next 12 months as provided by IBES since March 1994 and by FactSet since January 2022. Average P/E and standard deviations are calculated using 30 years of history. Shiller's P/E uses trailing 10-years of inflation-adjusted earnings as reported by companies. Dividend yield is calculated as the next 12-months consensus dividend divided by most recent price. Price-to-book ratio is the price divided by book value per share. Price-to-cash flow is price divided by NTM cash flow. EY minus Baa yield is the forward earnings yield (consensus analyst estimates of EPS over the next 12 months divided by price) minus the Bloomberg US corporate Baa yield since December 2008 and interpolated using the Moody's Baa seasoned corporate bond yield for values beforehand. Std. dev. over-/under-valued is calculated using the average and standard deviation over 30 years for each measure. \*Averages and standard deviations for dividend yield and P/CF are since November 1995 due to data availability. Guide to the Markets – U.S. Data are as of December 31, 2024.

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In contrast, global ex-U.S. equity markets appear less stretched than the U.S.



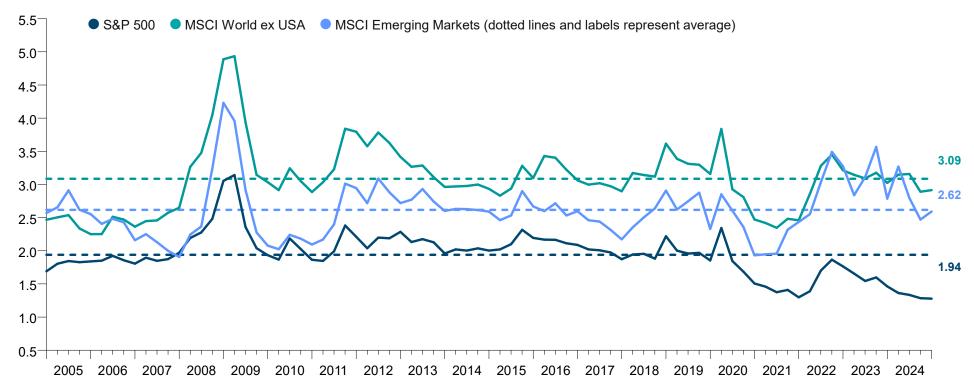


P/E measure is one year trailing.



### Dividend yields (past 20 years)

#### Dividend Yield for 20 Years Ended December 31, 2024

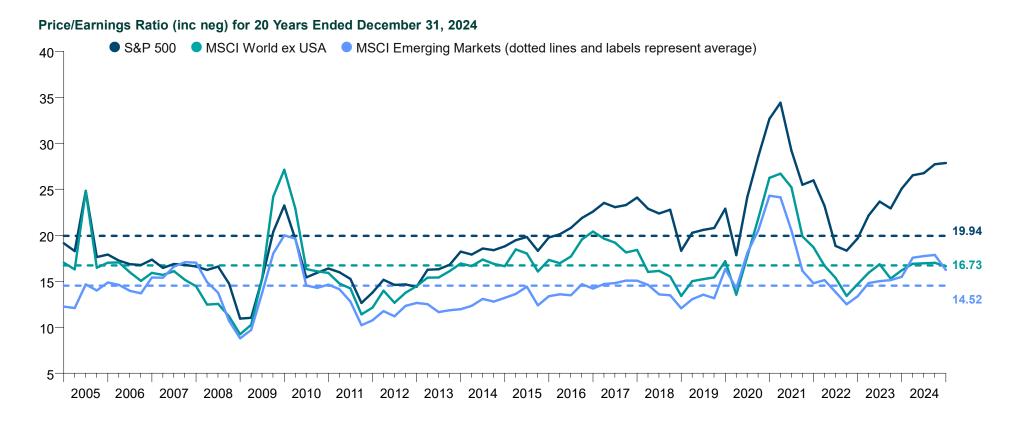


Global ex-U.S. equity has consistently provided higher dividend yields than U.S. equity.

Dividend yield measure is one-year trailing.



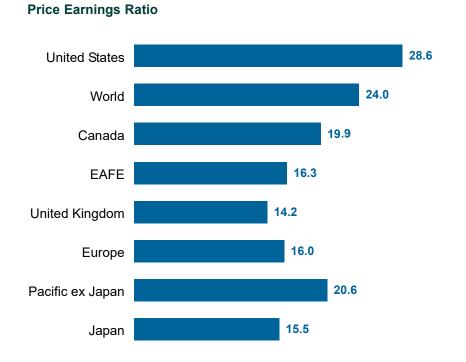
### Price / Earnings Ratio

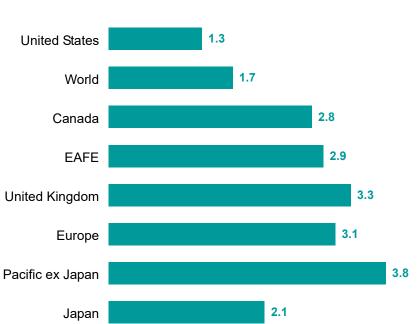


#### U.S., developed, and emerging price/earnings are broadly consistent with historical averages

### **Global ex-U.S. Equity Assumptions**

### Developed market valuations and dividend yield





#### **Dividend Yield**

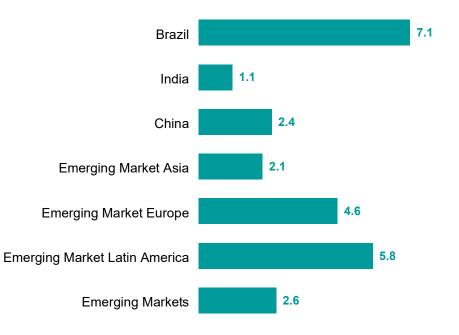
Valuations have increased in most developed markets, especially the United States. Dividend yields continue to decline.

### **Global ex-U.S. Equity Assumptions**

### Emerging market valuations and dividend yield



#### **Dividend Yield**



Emerging market valuations increased over 2024.

Dividend yields declined across most emerging market indices.

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## **2025 Expectations**

Alternatives

### **Core Real Estate**

### Recent price declines may offer more attractive entry points

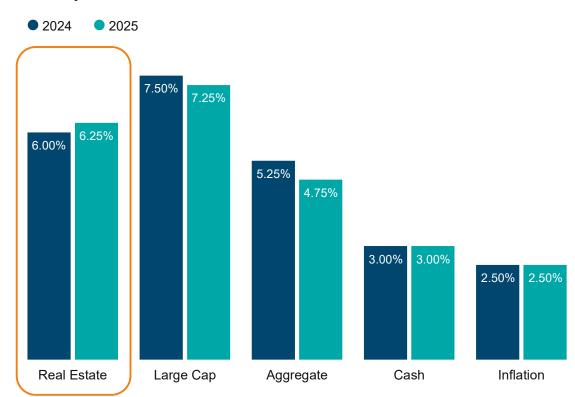
#### Background

Real estate has characteristics of equity (ownership and appreciation) and bonds (income from rents). Real estate fell 3.5% for the year ended Sept. 30, 2024, on an unlevered property basis.

While real estate, especially within offices, could continue to face headwinds in the short-term, recent price declines could make more attractive entry points available for longterm investors.

Slight increase in real estate returns compared to last year

2025 real estate return projection: 6.25% (up 25 bps)



#### **Return Projections**

Source: Callan, NCRIEF NPI index



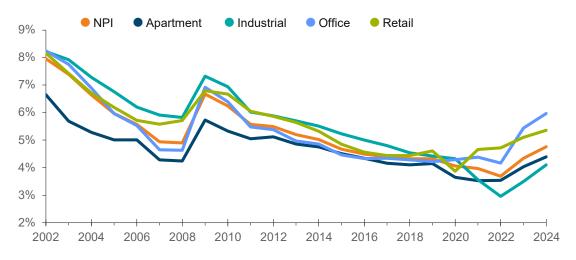
### **Core Real Estate**

# 6.25% core real estate compound return (net of fees)

Return calculations assume 5.3% cost of leverage and 0.5x debt-to-equity (33% loan-to-value)

Income Return (unlevered property)	5.0%
Appreciation (unlevered property)	1.2%
Total Return (before leverage)	6.2%

#### Annual Cap Rates (through Sept. 30, 2024)



#### Callan Return Assumptions (unlevered property returns)

	Office	Retail	Industrial	Apartments	Other	NPI Index
Income	5.9%	5.5%	4.4%	4.7%	5.9%	5.0%
Appreciation	0.7%	0.7%	2.1%	0.9%	0.9%	1.2%
Total Return	6.6%	6.2%	6.5%	5.6%	6.8%	6.2%

Source: NCREIF Property Index (NPI) cap rates correspond to unlevered property valuations



### **Private Equity**

#### Background

The private equity market is driven by many of the same economic factors as public equity markets. We expect private equity to benefit from more transaction activity and moderating rates.

Private equity performance expectations fell in line with public equity expectations.

We see tremendous disparity between the best- and worst-performing managers. The ability to select skillful managers could result in realized returns significantly greater than projected here.

2025 private equity return projection: 8.50% (down 25 bps)





Source: Callan



### **Private Credit**

#### Background

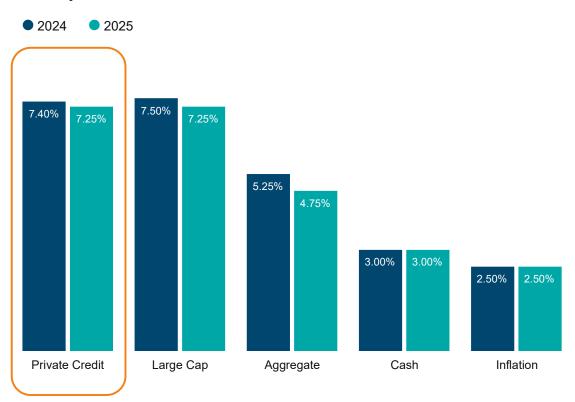
Return projection is anchored on middle market direct lending, where yields have fallen along with public fixed income yields.

Strong appetite from institutional and retail investors persists.

# 2025 private credit return projection: 7.25% (down 15 bps)

Unlevered Yield	9.5%
Leverage	0.85x
Levered Yield	12.8%
Loss Ratio	2.4%
Net Arithmetic	8.4%
Net Compound Return	7.25%

#### **Return Projections**



Source: Callan Return calculation assumes 5.5% cost of leverage and 1.3% unlevered loss ratio



### **Private Infrastructure**

#### Background

Infrastructure has characteristics of equity (ownership and appreciation) and bonds (income from fees, tolls, rent). Infrastructure typically levers steady cash flows with some unique element of monopoly of service, regulated rates or priority access to dedicated capital, like roads, tolls, airports, telecommunication, power supply.

Infrastructure shares elements of investing with private equity (closedand open-end funds) and real estate.

Infrastructure has not been subject to the level of volatility that has hit real estate. Returns were held constant to those projected in 2024, with a slight bump up in the yield. Valuations haven't entirely caught up to the increased yields from inflation pass through.

2025 infrastructure return projection: 6.35% (unchanged from 2024)

Source: Callan





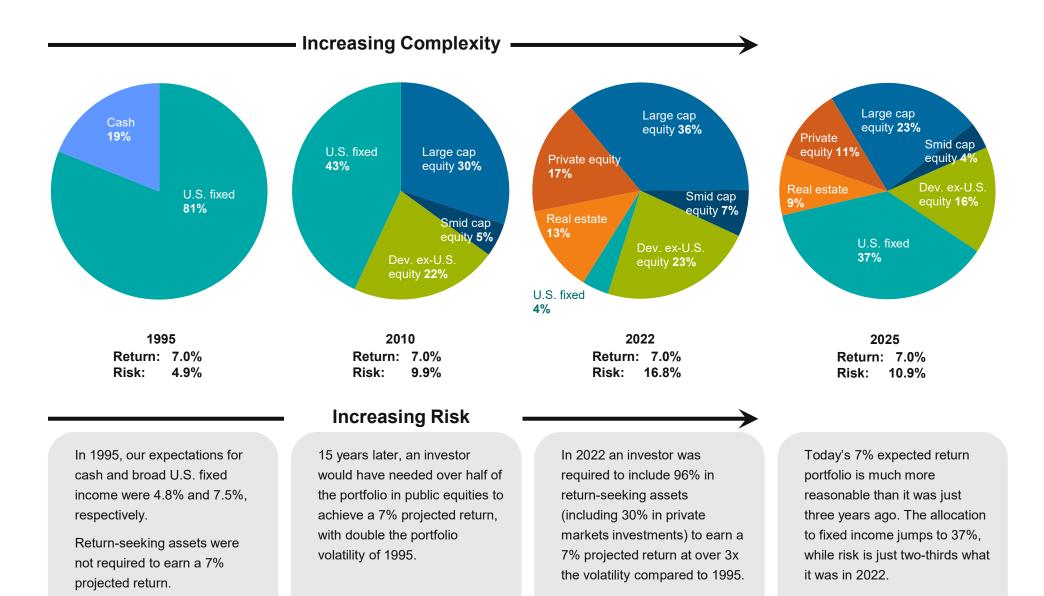




Appendix

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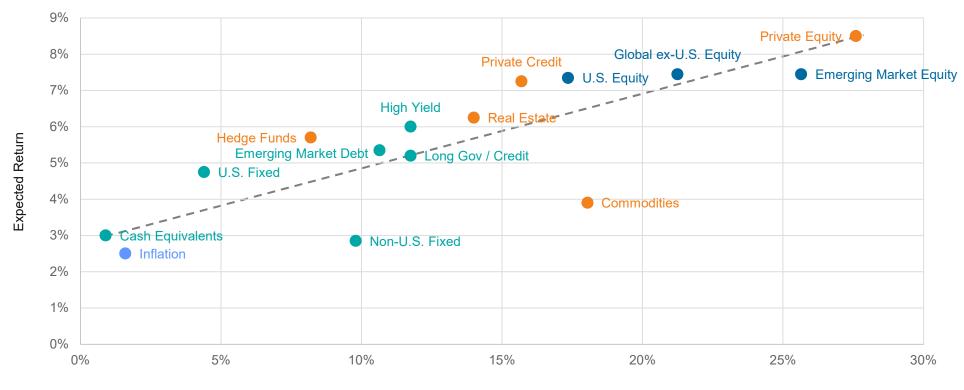
### 7% Expected Returns Over Past 30 Years



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### **Risk Aversion**

### Visualizing Callan's 2025–2034 Capital Market Assumptions



Expected Risk

Source: Callan 2025–2034 return-risk capital markets assumptions



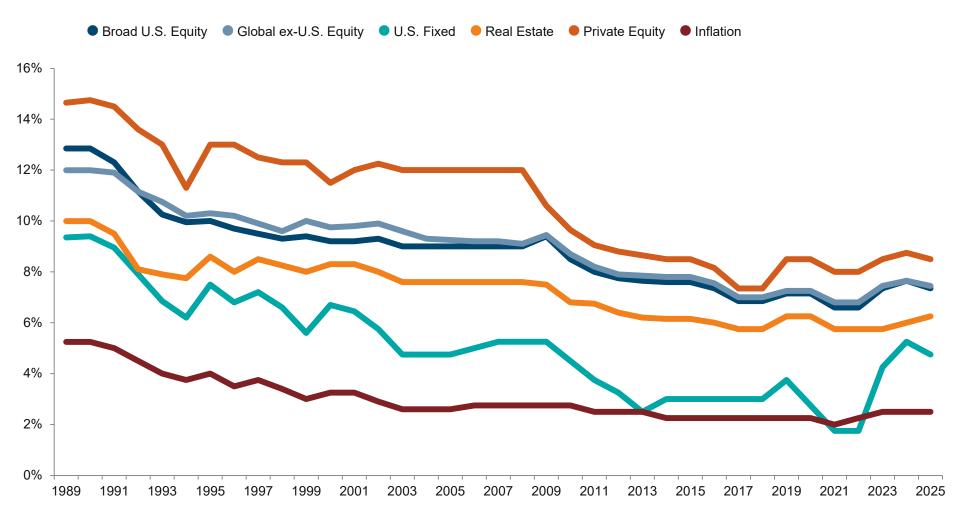
### 2025–2034 Callan Capital Markets Assumptions Correlations

Large Cap U.S. Equity	1.00																			
Smid Cap U.S. Equity	0.86	1.00																		
Dev ex-U.S. Equity	0.70	0.81	1.00																	
Emerging Market Equity	0.74	0.81	0.90	1.00																
Short Dur Gov/Credit	0.05	0.01	0.04	-0.01	1.00															
Core U.S. Fixed	0.09	0.03	0.06	0.01	0.80	1.00														
Long Government	0.01	0.00	0.03	0.00	0.65	0.82	1.00													
Long Credit	0.40	0.35	0.35	0.35	0.62	0.80	0.71	1.00												
TIPS	-0.04	-0.05	-0.04	-0.07	0.55	0.75	0.54	0.52	1.00											
High Yield	0.74	0.74	0.71	0.74	0.13	0.15	0.02	0.45	0.06	1.00										
Global ex-U.S. Fixed	0.12	0.11	0.14	0.10	0.50	0.50	0.42	0.53	0.40	0.16	1.00									
EM Sovereign Debt	0.59	0.60	0.61	0.65	0.17	0.23	0.11	0.47	0.11	0.62	0.17	1.00								
Core Real Estate	0.38	0.32	0.33	0.30	0.17	0.20	0.08	0.31	0.12	0.30	0.14	0.22	1.00							
Private Infrastructure	0.47	0.45	0.45	0.43	0.14	0.18	0.10	0.33	0.08	0.34	0.18	0.32	0.65	1.00						
Private Equity	0.79	0.76	0.75	0.73	-0.04	-0.04	-0.08	0.27	-0.12	0.55	0.07	0.44	0.46	0.52	1.00					
Private Credit	0.65	0.64	0.62	0.63	0.04	0.00	-0.02	0.32	-0.05	0.55	0.11	0.47	0.26	0.27	0.65	1.00				
Hedge Funds	0.60	0.56	0.53	0.53	0.28	0.39	0.25	0.52	0.23	0.50	0.24	0.47	0.20	0.31	0.40	0.47	1.00			
Commodities	0.20	0.20	0.20	0.20	-0.04	-0.05	-0.10	0.04	0.00	0.18	0.05	0.15	0.16	0.15	0.16	0.14	0.17	1.00		
Cash Equivalents	-0.02	-0.07	-0.08	-0.08	0.27	0.16	0.12	0.04	0.14	-0.03	0.10	-0.02	0.02	-0.04	-0.04	-0.04	0.00	-0.02	1.00	
Inflation	0.00	0.02	0.00	0.02	-0.20	-0.22	-0.30	-0.20	0.25	-0.03	-0.12	-0.04	0.20	0.10	0.04	-0.04	-0.01	0.35	0.02	1.00
	Large Cap	Smid Cap	Dev ex-US	EM Equity	Short Dur	Core Fix	Long Gov	Long Credit	TIPS	High Yield	GI ex-US Fixed	EMD	Core RE	Pvt Infra	Pvt Equity	Pvt Credit		Comm	Cash Eq	Inflation



### **Return Projections: Major Asset Classes**

### 1989–2025

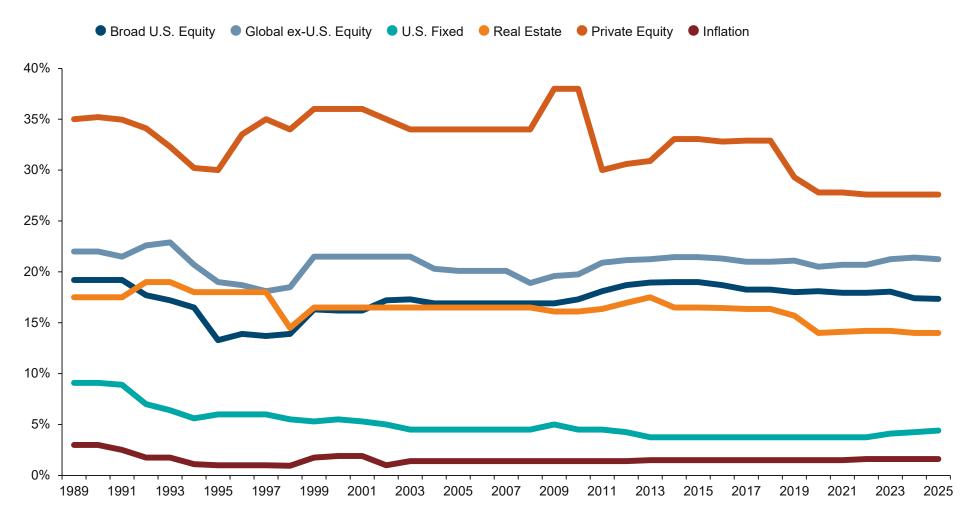


Source: Callan



### **Risk Projections: Major Asset Classes**

### 1989–2025



Source: Callan

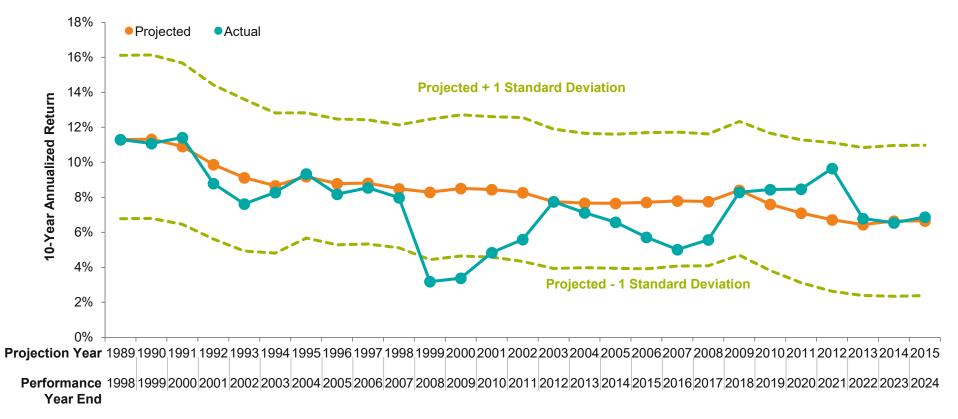


### **Actual Returns vs. Callan Projections**

Projection Years 1989–2015

#### Historical Comparison: Actual Returns vs. Callan Capital Markets Projections

Portfolio (60% Equity, 30% Fixed, 10% Real Estate)



Our projections are generally within one standard deviation of the actual return experienced

The glaring exceptions are the 10-year periods ended in 2008 and 2009 which contained not one but two major collapses in the equity market: the Dot-Com Bubble in 2001-02 and the Global Financial Crisis in 2008

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Past performance is no guarantee of future results.

### **About Callan**

Callan was founded as an employee-owned investment consulting firm in 1973. Ever since, we have empowered institutional investor with creative, customized investment solutions backed by proprietary research, exclusive data, and ongoing education. Today, Callan provides advisory services to institutional investor clients with more than \$3 trillion in total assets, which makes it among the largest independently owned investment consulting firms in the U.S. Callan uses a client-focused consulting model to serve pension and defined contribution plan sponsors, endowments, foundations, independent investment advisers, investment managers, and other asset owners. Callan has six offices throughout the U.S. For more information, please visit <u>www.callan.com</u>.

# Callan

Corporate Headquarters	Regional Offices	
One Bush Street	Atlanta	_
Suite 800	Chicago	in Callan
San Francisco, CA 94104	Denver	
	New Jersey	
www.callan.com	Portland	
www.callan.com	Portland	

## Callan's 2023 vs 2025 CMAs



		2023	CMAs	2025 (	CMAs	2025 minus 2023		
		10-Yr	10-Yr	10-Yr	10-Yr	10-Yr Ret.	10-Yr Ris	
Asset Class	Benchmark	Geometric	Standard	Geometric	Standard	Difference	Differenc	
		Return	Deviation	Return	Deviation	Difference	Differenc	
Equities								
Global Equity	MSCIACWI	7.60%	18.35%	7.60%	19.40%	0.00%	1.05%	
Broad US Equity	Russell 3000	7.35%	18.05%	7.35%	17.35%	0.00%	-0.70%	
Large Cap US Equity	S&P 500	7.25%	17.75%	7.25%	17.00%	0.00%	-0.75%	
Small/Mid Cap US Equity	Russell 2500	7.45%	22.15%	7.45%	22.00%	0.00%	-0.15%	
Global ex-US Equity	MSCI ACWI ex USA	7.45%	21.25%	7.45%	21.25%	0.00%	0.00%	
Developed ex-US Equity	MSCI World ex USA	7.25%	20.15%	7.25%	20.15%	0.00%	0.00%	
Emerging Market Equity	MSCI Emerging Markets	7.45%	25.70%	7.45%	25.65%	0.00%	-0.05%	
Fixed Income								
Cash Equivalents	90-Day T-Bill	2.75%	0.90%	3.00%	0.90%	0.25%	0.00%	
Short Duration Gov't/Credit	Bloomberg Barclays 1-3 Yr G/C	3.80%	2.30%	4.00%	2.40%	0.20%	0.10%	
Core US Fixed	Bloomberg Barclays Aggregate	4.25%	4.10%	4.75%	4.40%	0.50%	0.30%	
High Yield	Bloomberg Barclays High Yield	6.25%	11.75%	6.00%	11.75%	<b>-0.25</b> %	0.00%	
Bank Loans	S&P/LSTA Leveraged Loan Index	6.10%	9.70%	6.10%	9.90%	0.00%	0.20%	
EMD	EMBI Global Diversified	5.85%	10.65%	5.35%	10.65%	-0.50%	0.00%	
Private Markets								
Core Real Estate	NCREIF ODCE	5.75%	14.20%	6.25%	14.00%	0.50%	-0.20%	
Private Infrastructure	MSCI Glb Infra/FTSE Dev Core	6.15%	15.45%	6.35%	15.20%	0.20%	-0.25%	
Private Equity	Cambridge Private Equity	8.50%	27.60%	8.50%	<b>27.60</b> %	0.00%	0.00%	
Private Credit	N/A	7.00%	15.50%	7.25%	15.70%	0.25%	0.20%	
Hedge Funds	Callan Hedge FoF Database	5.55%	8.45%	5.70%	8.20%	0.15%	-0.25%	
Inflation	Consumer Price Index - Urban	2.50%	1.60%	2.50%	1.60%	0.00%	0.00%	
		-						
Relative Comparisons (10-		0.000/		0.000/				
Equity Risk Premium (Private Ed		0.90%		0.90%				
quity Volatility Differential (Pr	rivate Equity minus Global Equity)		9.25%		8.20%			
Credit Risk Premium (Private Ci	redit minus Public High Yield)	0.75%		1.25%				
Credit Volatility Differential (Pr	ivate Credit minus Public High Yield)		3.75%		3.95%			
		1		1				

Source: Callan, NHRS

## 2025 CMA Asset Class Correlation Matrix

Large Cap U.S. Equity	1.00																			
Smid Cap U.S. Equity	0.86	1.00																		
Dev ex-U.S. Equity	0.70	0.81	1.00																	
Emerging Market Equity	0.74	0.81	0.90	1.00																
Short Dur Gov/Credit	0.05	0.01	0.04	-0.01	1.00															
Core U.S. Fixed	0.09	0.03	0.06	0.01	0.80	1.00														
Long Government	0.01	0.00	0.03	0.00	0.65	0.82	1.00													
Long Credit	0.40	0.35	0.35	0.35	0.62	0.80	0.71	1.00												
TIPS	-0.04	-0.05	-0.04	-0.07	0.55	0.75	0.54	0.52	1.00											
High Yield	0.74	0.74	0.71	0.74	0.13	0.15	0.02	0.45	0.06	1.00										
Global ex-U.S. Fixed	0.12	0.11	0.14	0.10	0.50	0.50	0.42	0.53	0.40	0.16	1.00									
EM Sovereign Debt	0.59	0.60	0.61	0.65	0.17	0.23	0.11	0.47	0.11	0.62	0.17	1.00								
Core Real Estate	0.38	0.32	0.33	0.30	0.17	0.20	0.08	0.31	0.12	0.30	0.14	0.22	1.00							
Private Infrastructure	0.47	0.45	0.45	0.43	0.14	0.18	0.10	0.33	0.08	0.34	0.18	0.32	0.65	1.00						
Private Equity	0.79	0.76	0.75	0.73	-0.04	-0.04	-0.08	0.27	-0.12	0.55	0.07	0.44	0.46	0.52	1.00					
Private Credit	0.65	0.64	0.62	0.63	0.04	0.00	-0.02	0.32	-0.05	0.55	0.11	0.47	0.26	0.27	0.65	1.00				
Hedge Funds	0.60	0.56	0.53	0.53	0.28	0.39	0.25	0.52	0.23	0.50	0.24	0.47	0.20	0.31	0.40	0.47	1.00			
Commodities	0.20	0.20	0.20	0.20	-0.04	-0.05	-0.10	0.04	0.00	0.18	0.05	0.15	0.16	0.15	0.16	0.14	0.17	1.00		
Cash Equivalents	-0.02	-0.07	-0.08	-0.08	0.27	0.16	0.12	0.04	0.14	-0.03	0.10	-0.02	0.02	-0.04	-0.04	-0.04	0.00	-0.02	1.00	
Inflation	0.00	0.02	0.00	0.02	-0.20	-0.22	-0.30	-0.20	0.25	-0.03	-0.12	-0.04	0.20	0.10	0.04	-0.04	-0.01	0.35	0.02	1.00
	Large Cap	Smid Cap	Dev ex-US	EM Equity	Short Dur	Core Fix	Long Gov	Long Credit	TIPS	High Yield	GI ex-US Fixed	EMD	Core RE	P∨t Infra	Pvt Equity	Pvt Credit	0	Comm	Cash Eq	Inflation

Source: Callan, NHRS

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New Hampshire Retirement System

# 2023 CMA Asset Class Correlation Matrix



Large Cap U.S. Equity	1.00																			
Smid Cap U.S. Equity	0.88	1.00																		
Dev ex-U.S. Equity	0.73	0.79	1.00																	
Em Market Equity	0.79	0.83	0.89	1.00																
Short Dur Gov/Credit	0.05	0.01	0.04	-0.01	1.00															
Core U.S. Fixed	0.02	-0.02	0.00	-0.04	0.80	1.00														
Long Government	-0.05	-0.06	-0.03	-0.06	0.67	0.83	1.00													
Long Credit	0.45	0.40	0.40	0.40	0.64	0.80	0.65	1.00		_										
TIPS	-0.07	-0.08	-0.09	-0.11	0.56	0.70	0.50	0.52	1.00											
High Yield	0.75	0.74	0.73	0.75	0.10	0.09	0.00	0.45	0.02	1.00										
Global ex-U.S. Fixed	0.10	0.07	0.13	0.12	0.50	0.60	0.50	0.55	0.45	0.18	1.00		_							
EM Sovereign Debt	0.65	0.65	0.65	0.69	0.16	0.19	0.10	0.47	0.08	0.62	0.21	1.00								
Core Real Estate	0.44	0.42	0.42	0.41	0.16	0.14	0.05	0.30	0.09	0.31	0.16	0.29	1.00							
Private Infrastructure	0.48	0.47	0.46	0.46	0.14	0.15	0.10	0.33	0.08	0.34	0.18	0.32	0.76	1.00						
Private Equity	0.79	0.77	0.76	0.75	-0.01	-0.09	-0.13	0.30	-0.11	0.61	0.08	0.51	0.55	0.60	1.00					
Private Credit	0.69	0.68	0.65	0.68	0.11	0.00	-0.05	0.33	-0.12	0.63	0.12	0.50	0.25	0.27	0.67	1.00				
Hedge Funds	0.67	0.63	0.63	0.63	0.23	0.29	0.20	0.55	0.20	0.60	0.25	0.54	0.28	0.30	0.48	0.51	1.00			
Commodities	0.20	0.20	0.20	0.20	-0.05	-0.04	-0.10	0.05	0.00	0.20	0.10	0.15	0.18	0.15	0.20	0.17	0.23	1.00		
Cash Equivalents	-0.06	-0.08	-0.10	-0.10	0.30	0.15	0.12	0.00	0.12	-0.09	0.05	-0.06	0.00	-0.04	0.00	-0.04	-0.04	-0.02	1.00	
Inflation	-0.02	0.02	0.00	0.03	-0.21	-0.23	-0.30	-0.20	0.25	0.00	-0.15	-0.04	0.20	0.10	0.06	-0.05	0.05	0.35	0.05	1.00
	Large Cap	Smid Cap	Dev	Em Mkts	Short Dur	Core Fixed	Long Gov	Long Credit	TIPS	High Yield	Global ex-US Fixed	EM	Core Real Estate	Private Infra	Private Equity		Hedge Funds	Comm	Cash Equiv	Inflation

Source: Callan, NHRS

	New Hampshire Retirement System
To:	Board of Trustees
From:	Jan Goodwin, Executive Director
Date:	January 30, 2025
Re:	Executive Director Operating Report
Item:	Action: $\Box$ Discussion: $\Box$ Informational: $\boxtimes$

# Significant Developments and Priority Issues

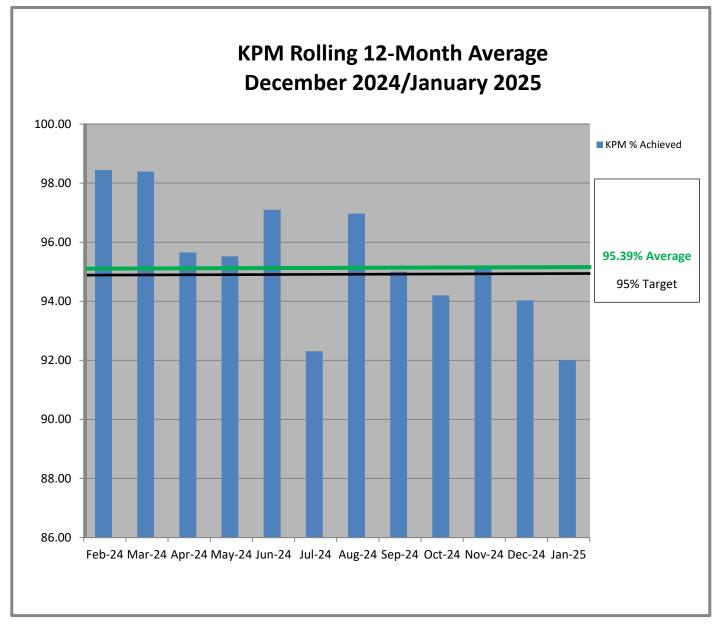
• We are in the midst of a busy legislative session. As of yesterday, we have provided the NHRS 101 presentation to two House Committees. In addition, we continue to regularly review our current year's budget to determine which priority items can be accelerated from the next biennium to the current biennium.

# **Current Months' Highlights – December and January**

- The KPM scores for December and January were 94.03% and 92.00%, respectively. See 12-month rolling average chart, attached.
- PGV3 is 100% completed. Staff continues to test new releases which contain modifications and improvements.
- Finance is winding down its work on the audited financial statements, the ACFR and the actuarial valuation.
- 14 of the ED's KPMs were achieved for December and January (two were N/A).
- Finance is coordinating efforts for the mailing of Form 1099-R to retirees and beneficiaries. Member Services and Finance successfully completed the preparation and issuance of annual member statements and the payment of the Temporary Supplemental Allowance.
- NHRS, external counsel, and related vendors completed due diligence on our new office space.
- Collective bargaining began in January as the current three-year agreement ends on June 30, 2025.
- Staff will bring a recommendation to the Audit Committee at its February meeting for an external audit firm to perform audits to validate the work previously done by GRS.

# **Upcoming Plans & Projects**

- We are working with Stibler Associates, a long-time NHRS contractor, to identify configurations of our new office space. We expect to close on the building on or after March 1.
- Cross-departmental implementation teams continue their meetings to develop plans to implement the two remaining pieces of legislation (increased multiplier for Tier B, Group II members and Violent Accidental Disability Retirement) passed in 2024.



#### December 2024/January 2025

"No" answers <u>must</u> include a comment, whereas "Yes" answers can include a comment, but a comment is not required. N/A should be used only in cases where reporting is not required, i.e., task is quarterly (comment must so indicate).

		CEMI 2024 CHIEV	4		IANU 202 CHIE	5	
	YES	NO	N/A	YES	NO	N/A	COMMENTS
Overall Score	TES	x			X	11/11	We achieved a 94.03% success ratio in December and a 92.00% in January. We failed 4 KPMs in December and 5 in January.
Executive							
<ol> <li>Distribute weekly email updates to all Trustees on or before the end of business on Friday of every week.</li> </ol>	х			Х			
2. Distribute weekly email updates to all staff on or before the end of business on Monday of every week.	Х			Х			
3. Prepare and distribute Board materials electronically by the Thursday before the Tuesday meeting.	Х					Х	No board meeting in January.
4. Post Board and committee meeting notices according to 91-A:2.	Х			Х			
5. Prepare minutes of Board and Board Committee meetings according to the timeliness guidelines in 91-A:2 and 91-A:3, with draft minutes for internal review ready by close-of-business on the Friday following the Board meeting. Internal review of Board draft meeting minutes and posting of such minutes are to be completed within five (5) business days of the meeting.	x					x	No board meeting in January.
<ol> <li>Prepare draft MTeam meeting minutes and forward to Executive Director for review within five (5) business days of meeting; to managers for review within seven (7) business days of meeting; and post final meeting minutes to the common drive within eight (8) business days of the meeting.</li> </ol>	х			Х			

			CEMI 2024 CHIEV	4	_	ANUA 202 CHIE	5	
		YES	NO	N/A	YES	NO	N/A	COMMENTS
7.	Maintain expenditures at or less than Trust Fund Budget.	X			X			
	Maintain expenditures at or less than Board of Trustees Budget as reported by Finance in the most recent manager's report (1-month lag).	х			x			
IT								
	All vital servers maintain an uptime of 99% or higher.	Х			Х			
2.	All PensionGold requests are prioritized within thirty-one (31) calendar days.	Х			Х			
3.	All help desk requests are followed up with a conversation (phone/email) within four (4) business days.	Х			X			
4.	Maintain help desk survey scores above satisfactory marks of 95% or higher.	Х			X			
5.	All US-CERT email security advisories are placed into the help desk system to be addressed within two (2) business days.	Х			x			
6.	Respond to all phone calls within one (1) business day.	Х			Х			
	Maintain expenditures at or less than IT budget as reported by Finance in the most recent manager's report (1-month lag).	Х			X			
Fina								
	Prepare the NHRS Annual Comprehensive Financial Report (ACFR): unaudited by October 31, and the audited ACFR by December 31, in accordance with generally accepted accounting principles.	х					Х	Not due until October & December 2025.
	Reconcile operating bank account within 60 days of the end of the month.		Х			Х		This was not met as we continue to get caught up on our monthly bank reconciliations.
3.	Produce and distribute monthly actual-to-plan-	Х			Х			

		<b>CEMI</b> 2024 CHIEV	1		JANUA 202 CHIE	5	
	YES	NO	N/A	YES	NO	N/A	COMMENTS
budget reports within ten (10) business days from the end of the prior month.							
<ul> <li>4. Produce the monthly financial statements (FS) for the Board of Trustees meeting at least three (3) business days prior to the scheduled Board mailing.</li> </ul>	Х			x			
<ul> <li>5. Post all cash receipts for a month, for which we have received the associated voucher, into the pension benefit system (Pension Gold) within ten (10) business days after the close of the month.</li> </ul>			Х			Х	Suspended due to PGV3 implementation.
<ol> <li>Issue all NHRS annuitant pension payments timely and accurately.</li> </ol>	Х			Х			
7. File annual payroll tax return (form 945) for the annuity payroll by January 31.			Х	X			Not due until January.
8. Reconcile all employer accounts sufficiently to allow for interest posting for the reporting month within ninety (90) days of the end of the reporting month, for which we have received all payments and back-up from employers.			Х			х	Suspended due to PGV3 implementation.
<ol> <li>Process all confirmed post-retirement electronic direct deposit change requests received by the date that the pre-note wizard is run in Pension Gold and direct funds accordingly in the same month.</li> </ol>	х			x			
10. Deposit all payments received at NHRS offices, with appropriate supporting documents, into local custodial bank within three (3) business days of receipt, with any payments secured on any intervening days.	х			x			
11. Annually for the preceding tax year, post electronic 1099-R forms to MyAccount by January 24 and mail hard copy 1099-R forms by January 31 of the subsequent year.			Х	x			No due until January.

			CEMI 2024	1		ANUA 202	5	
			HIEV			CHIE		
]	Maintain expenditures at or less than Finance Budget as reported in the most recent manager's report (1-month lag).	YES X	NO	N/A	YES X	NO	N/A	COMMENTS
Invest	ment							
	Generate investment returns for three (3) and five (5) Year Total Fund Performance greater than the applicable Total Fund Benchmark <b>measured quarterly</b> .			Х		Х		The investment returns for the three and five-year periods trailed the applicable Total Fund benchmark.
2.	Generate investment returns for the long-term (25 years) Total Fund Performance greater than the applicable Actuarial Assumed Rate of Return (6.75%) <b>measured each June 30</b> .			Х			Х	Not due until July 2025.
3.	Generate investment returns for three (3) and five (5) Year Total Fund Performance greater than the applicable peer universe median <b>measured quarterly</b> .			Х	X			
4.	Complete the IIC's Private Debt & Private Equity Strategic Plan for the calendar year.			Х	Х			Due in January 2025.
5.	Manage cash flow and make funds available for the payment of monthly retirement benefits, expenses and capital calls on or before the last business day of the month.	Х			X			
	Manage continuously the asset allocation within approved ranges and rebalance as appropriate.	х			Х			
	Maintain trading cost at or below median of applicable peer universe as measured for the calendar year.			Х	Х			
8.	Ensure all proxies are voted consistent with the Board approved Proxy Policy.	Х			Х			
9.	Distribute complete and accurate Investment Committee materials to all members of the Investment Committee on the Friday before the regularly scheduled monthly Investment	Х			X			

		<b>CEMI</b> 2024 CHIEV	ł		IANUA 202 CHIEV	5	
	YES	NO	ED N/A	YES	NO	N/A	COMMENTS
Committee meeting.	TES	NO	N/A	1123	NO	N/A	COMMENTS
10. Maintain internal expenditures at or less than Investment Budget as reported by Finance in the most recent manager's report (1-month lag).	x			x			
Legal							
1. Assure no instances of statutory or regulatory non-compliance.	Х			Х			
<ol> <li>Provide disability recommendations to the Benefits Committee within sixty (60) calendar days of receipt in the Legal Dept.</li> </ol>	Х				х		A disability denial recommendation failed to make it on the January Benefits Committee agenda.
3. Commence an adjudicative proceeding within sixty (60) calendar days of receipt of administrative appeal.	Х			X			
<ol> <li>Present a recommended decision to the Board within seventy-five (75) calendar days after the close of the record in an appeal.</li> </ol>	Х			х			
5. Perform employer compliance field audits; a rolling average of 1.5 audits per experienced auditor per month over the prior 12-month period.		х			х		There were no completed audits in December, causing the rolling 12-month average to drop below the team goal of 4.5 audits per month.
6. Present one (1) employer education session per quarter.	Х			Х			
<ol> <li>Maintain expenditures at or less than Legal Budget as reported by Finance in the most recent manager's report (1-month lag).</li> </ol>	Х			х			
Member Services							
<ol> <li>Calculate all preliminary retirement benefits within thirty (30) calendar days of member- requested date of retirement.</li> </ol>	Х			х			
<ol> <li>Calculate 100% of final retirement benefits (EXCLUDING JULY applications) within seven (7) months of member requested date of retirement provided that all statutorily required</li> </ol>			Х			Х	Suspended due to PGV3 implementation and delays.

		CEMI 2024 CHIEV	ł		ANUA 202	5	
	YES	NO	ED N/A	ACHIEVED YES NO N/A			COMMENTS
documentation has been received and all wages have been reported.	TES	NO	N/A	TES	NO	N/A	COMMENTS
3. Calculate 100% of July final retirements within eight (8) months of member requested date of retirement provided that all statutorily required documentation has been received and all wages have been reported.			Х			х	Suspended due to PGV3 implementation and delays.
<ol> <li>Schedule member meetings with Benefit Specialists within ten (10) business days of request.</li> </ol>	Х			Х			
5. Issue all member retirement benefit estimates within thirty (30) business days of receipt of request.	Х			Х			
<ol> <li>Process member refund requests within ninety (90) calendar days of receipt of written request.</li> </ol>	Х			Х			
7. Process service purchases within fifteen (15) business days of request receipt.	Х			Х			
8. Process additional contribution calculations within ninety (90) calendar days of receipt.	Х			Х			
9. Post all interest to member accounts within the month that Finance authorized the activity.	Х			Х			
10. Adhere to payroll "close" schedule for benefit setup balancing purposes.	Х			Х			
11. Process all pension changes within thirty (30) calendar days of receipt/notification.			Х	Х			Suspended due to PGV3 implementation and delays.
12. Process retiree death benefit refund payments within sixty (60) calendar days following receipt of all required paperwork.			Х	Х			Suspended due to PGV3 implementation and delays.
13. Establish survivorship benefit setup for payment within sixty (60) calendar days following receipt of all required death documentation and pension recoveries.			Х	x			Suspended due to PGV3 implementation and delays.
14. Submit new recoupment cases to Recoupment Committee by next committee meeting following discovery.	Х			Х			

		CEMI 2024 CHIEV	1		ANUA 202 CHIEV	5	
	YES	NO	N/A	YES	NO	N/A	COMMENTS
15. Initiate Recoupment/Benefits Committee recoupment decisions within seven (7) business days of decision.	X			X			
16. Review and balance updates submitted by employers and TPAs to PG for insurance rate changes received by the first business day of each month within four (4) business days.	х			х			
17. Complete monthly insurance non-rate changes by processing all authorizations received by the date the annuity payroll is posted with zero carryovers.	Х			Х			
18. Maintain expenditures at or less than Member Services Budget as reported by Finance in the most recent manager's report (1-month lag).	Х			Х			
Human Resources							
<ol> <li>Ensure compliance with all Federal, State and CBA rules and regulations as measured by no notices of violation.</li> </ol>	Х			Х			
2. Respond to all payroll errors within one (1) business day and correct all payroll errors within one pay cycle.	Х			Х			
<ol> <li>Reduce recruitment time for open staff positions to no more than forty-five (45) business days and open management/executive positions to no more than ninety (90) business days.</li> </ol>	Х			х			
4. Maintain expenditures at or less than HR Budget as reported by Finance in the most recent manager's report (1-month lag).	Х			Х			
Communications/Legislative Affairs							
1. Schedule a minimum of thirty (30) online or in- person member/constituent education sessions each year.	Х			X			

		CEMI 2024	1		ANUA 202	5	
	AC YES	HIEV	N/A	A YES	CHIE NO	VED N/A	COMMENTS
2. Achieve ninety-five percent (95%) rating from members attending an-education session that the session was "completely/moderately" easy to understand.	X		N/A	X	NO	<u> </u>	COMMENTS
3. Meet all deadlines in editorial calendar.		X			х		Items have been delayed due to Marty's departure and his still vacant position. We are working on catching up and completing all projects.
<ol> <li>Monitor media coverage of NHRS and provide articles to Board, IIC and Staff within two (2) business days.</li> </ol>	Х			x			
5. Post updated legislative summaries on <u>www.nhrs.org</u> by the end of business every Friday throughout the legislative session.			Х	X			Legislative season begins in January.
<ol> <li>Prepare and deliver Quarterly Report to the General Court by January 1, April 1, July 1 and October 1.</li> </ol>		x				Х	This was missed in the temporary transition to Legal due to Marty's departure and his still vacant position. It was submitted on January 16 <sup>th</sup> .
7. Maintain expenditures at or less than PIO Budget as reported by Finance in the most recent manager's report (1-month lag).	Х			X			
Internal Audit							
1. Prepare a Risk Assessment and Fiscal Year Audit Plan for the approval of the Audit Committee annually.			Х			Х	Not due this month.
2. Execute and present an engagement to the Audit Committee on a quarterly basis.	Х			Х			
3. On behalf of the external auditors, administer the GASB census data audits and provide the completed audits to the external auditors by the established due date.			х	x			Annual item, initiated process in January.
<ul> <li>Prepare the updated NHRS Audit Issues Tracking Report for the Audit Committee and Board of Trustees at least three (3) business days prior to the scheduled Board/Committee mailing.</li> </ul>	х			х			

		CEMI 2024	4	J	ANUA 202		
		HIEV			CHIE	-	
	YES	NO	N/A	YES	NO	N/A	COMMENTS
5. Distribute complete and accurate meeting materials to all members of the Audit Committee at least three (3) business days prior to the scheduled Audit Committee meetings.	Х			х			
6. Prepare draft Audit Committee Meeting minutes for review within three (3) business day of the meeting.	Х			Х			
7. Maintain expenditures at or less than Internal Audit Budget as reported by Finance in the most recent manager's report (1-month lag).	Х			Х			
Contact Center							
1. Respond to all incoming emails within 24 business hours.	Х			Х			
<ol> <li>Maintain an average speed of answer within two (2) minutes.</li> </ol>	Х			х			
3. Maintain a 95% call satisfaction rating for callers' experience with the Contact Center Representative (CCR).	Х			Х			We achieved a 100% satisfaction rate in December and a 98.33% satisfaction rate in January.
Administrative							
1. Assure that formal complaints are responded to within five (5) business days.			Х			Х	No complaints were received in either December or January.
2. Maintain expenditures, at or less than Administration Budget, as reported by Finance in the most recent manager's report (1-month lag).	х			Х			

# Contact Center December 2024

#### Phone Calls

	Total	Percentage
Calls addressed by		
CCRs	2658	98.05%
Calls forwarded to		
SMEs	48	1.77%
Calls forwarded to		
SME Manager	5	0.18%
Total	2,711	100.00%

#### Post Call Surveys

	Total
Total Calls Handled	2,711
Surveys Completed	62
% of Total Calls Completion Rate	2.29%

#### Emails

#### Message Center Threads

#### Walk Ins

	Total
Number of Walk-Ins	195
Total Walk In Time	
(hours)	34.87
Average Walk In	
time (minutes)	10.73

	Total	Percentage
Emails addressed by CCRs	479	64.91%
Emails forwarded to SMEs	259	35.09%
Total	738	100.00%

	Total
Handled by Contact	
Center	111

#### Goal: Answer calls within 2 minutes with 5% abandon rate.

Queue Name	Calls Presented	Calls Handled	Percentage	Calls Abandoned	Percentage	Average Queue Time	Average Speed of Answer	Average Time to Abandon	Average Handle Time
Employer	97	97	100.00%	0	0.00%	1:08:00	0:07:00	0:00:00	4:55:00
My Account	392	365	93.11%	27	6.89%	1:11:00	0:13:00	3:08:00	6:23:00
Member	1084	1020	94.10%	64	5.90%	0:59:00	0:12:00	3:31:00	4:58:00
Age Adjustment	13	11	84.62%	2	15.38%	1:48:00	0:10:00	1:19:00	3:15:00
Retiree	1264	1160	91.77%	104	8.23%	1:03:00	0:12:00	2:05:00	4:25:00
Member Statement	73	58	79.45%	15	20.55%	1:04:00	0:15:00	1:37:00	3:44:00
Totals	2923	2711	92.75%	212	7.25%	1:12:10	0:11:30	1:56:40	4:36:40 <b>A</b>

# Contact Center January 2025

#### Phone Calls

	Total	Percentage
Calls addressed by		
CCRs	4158	98.48%
Calls forwarded to		
SMEs	59	1.40%
Calls forwarded to		
SME Manager	5	0.12%
Total	4,222	100.00%

### Post Call Surveys

	Total
Total Calls Handled	4,222
Surveys Completed	136
% of Total Calls Completion Rate	3.22%

#### Emails

#### Message Center Threads

#### Walk Ins

	Total
Number of Walk-Ins	208
Total Walk In Time	
(hours)	34.98
Average Walk In	
time (minutes)	10.09

	Total	Percentage
Emails addressed by CCRs	710	67.94%
Emails forwarded to SMEs	335	32.06%
Total	1,045	100.00%

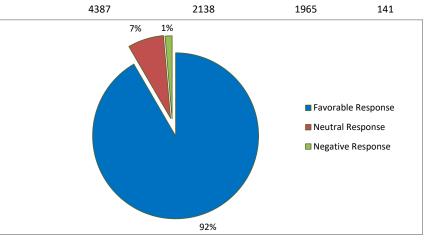
	Total
Handled by Contact	
Center	117

#### Goal: Answer calls within 2 minutes with 5% abandon rate.

Queue Name	Calls Presented	Calls Handled	Percentage	Calls Abandoned	Percentage	Average Queue Time	Average Speed of Answer	Average Time to Abandon	Average Handle Time
Employer	167	141	84.43%	26	15.57%	1:31:00	1:42:00	3:16:00	3:28:00
My Account	811	689	84.96%	122	15.04%	2:20:00	1:30:00	2:51:00	6:20:00
Member	1277	1124	88.02%	153	11.98%	2:02	1:31:00	2:53:00	5:23:00
Retiree	2105	1800	85.51%	305	14.49%	2:04:00	1:31:00	2:54:00	4:10:00
1099	298	251	84.23%	47	15.77%	1:42:00	1:18:00	2:27:00	2:23:00
Member Statement	266	217	81.58%	49	18.42%	1:34:00	1:18:00	2:26:00	4:00:00
Totals	4924	4222	85.74%	702	14.26%	1:52:10	1:28:20	2:47:50	4:17:20 <b>A</b>

#### NHRS Board Monthly Reporting Package Process Improvement December, 2024 - January, 2025

Executive Director Telephone Survey Results							
	Number of Names	Number of	Favorable Response	Neutral	Negative	Left VM	Bad Phone
	on Call List	Connections Made	(1)	Response	Response	No Call Back	Number/Not in
				(2)	(3)	(4)	Service/No VM
							(5)
2025							
January	30	13	13	0	0	8	9
2024							
January - December	520	224	213	7	4	207	89
2023							
January - December	520	251	226	19	6	219	50
2022							
January - December	520	291	265	21	5	174	55
2021							
January - December	130	73	64	8	1	42	15
2020							
January - December	100	50	47	2	1	37	13
2019		220	246			450	122
January - December	500	228	216	/	5	150	122
2018		227	217	0	2	103	
January - December 2017	490	227	217	8	2	183	80
January - December	460	214	204	8	2	168	78
2016		214	204	0	2	108	/8
January - December	520	258	230	25	3	189	73
2015		230	230	23	5	105	/3
January - December	510	273	242	28	3	152	85
2014							
October - December	87	36	28	8	0	30	21
	4387	2138	1965	141	32	1559	690



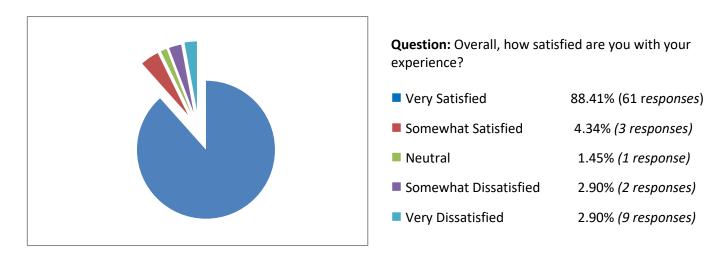
# NHRS MEMBER SATISFACTION SURVEY SUMMARY Q2 Fiscal Year 2025

# Overview

NHRS has been utilizing member satisfaction surveys since July 2013. The following summary provides a high-level overview of key survey results for Member Services. Negative comments are identified when responses are received and, in keeping with our mission to provide superior service, managers reach out to anyone who has had an unsatisfactory experience and provided their name and/or contact information.

# **Active Members**

Separate surveys are provided to members who are involved in the following interactions: (1) appointment with a benefits specialist; (2) request for a written pension estimate; (3) withdrawal or rollover of accumulated contributions; or (4) purchase of service credit. There are several common questions on each survey, and the responses to all the common questions are aggregated below:



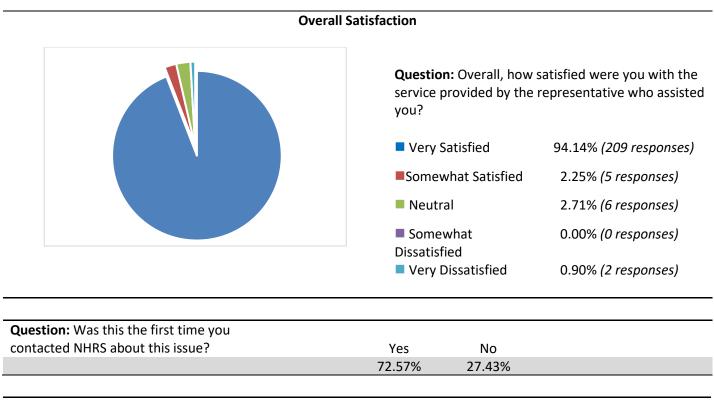
Question: How satisfied are you with the	Very	Somewhat		Somewhat	Very
following?	Satisfied	Satisfied	Neutral	Dissatisfied	Dissatisfied
Phone system	84.00%	4.00%	10.00%	2.00%	0.00%
Email	85.11%	4.25%	6.38%	2.13%	2.13%
Initial contact with representative	89.06%	6.25%	3.13%	1.56%	0.00%

Question: How satisfied are you with the					
service provided by the NHRS	Very	Somewhat		Somewhat	Very
representative who assisted you?	Satisfied	Satisfied	Neutral	Dissatisfied	Dissatisfied
Friendliness / Professionalism / Courtesy	92.41%	1.52%	1.52%	3.03%	1.52%
Knowledge	92.31%	1.54%	4.61%	0.00%	1.54%
Clarity of verbal explanation	90.92%	1.51%	1.51%	3.03%	3.03%
Clarity of written materials	92.06%	1.58%	0.00%	3.18%	3.18%

Appointments: 147 sent/ 48 returned / 32.65%	Withdrawal / Rollover: 246 sent / 18 returned / 7.32%
Estimates: 328 sent / 3 returned / 0.91%	Service Credit: 68 sent / 1 returned / 1.47%

#### **Contact Center**

The contact center opened in December 2020 to transform member services operations to better meet the needs of our stakeholders. Callers reaching the contact center include active members and retirees. Callers are offered the option to stay on the line after their call is finished to complete a brief, three (3) question survey. The following summary provides a high-level overview of the results for this survey.



Question: Overall, how satisfied are	Very	Somewhat		Somewhat	Very
you with your experience?	Satisfied	Satisfied	Neutral	Dissatisfied*	Dissatisfied*
	85.35%	6.03%	3.45%	0.86%	4.31%

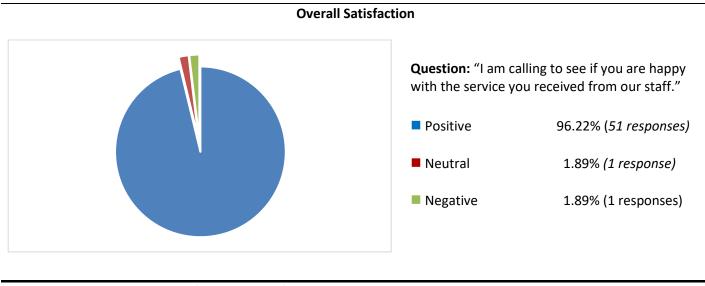
Response Rate: 7,658 calls received /237 surveys completed / 3.09%

\* Contact center management reviews all 'somewhat dissatisfied' and 'very dissatisfied' calls to understand whether members were truly dissatisfied with their service or if they simply selected an incorrect response option. Since calls are recorded, every call in these two categories is listened to and a report is issued. These reports will be used to determine if our survey options need to be modified and serve as a training tool for our contact center representatives.

#### **ED Telephone Surveys**

In October 2021, the Executive Director resumed making calls to stakeholders to inquire about their level of satisfaction with NHRS. These calls were discontinued in March 2020 at the onset on Covid-19. On a weekly basis, a list of ten (10) members who have visited or called NHRS are selected at random and provided to the Executive Director.

The Executive Director, in turn, contacts or attempts to contact each member on the list to inquire about their satisfaction with the service received. Below are the results for the quarter.



Response rate: 130 calls made / 53 responses/ 40.77%

# Last 12 Months Executive Director Contract Approvals (as of 1/30/25)

Vendor Name	Effective Date	Amount	Description
NH Print and Mail	1/31/2024	\$24,332	Printing and mailing of Form 1099-R
CEM Benchmarking	3/15/2024	\$34,000	Benchmarking Services
Funston	3/1/2024	\$49,000	Investment Strategy Review
Funston	3/1/2024	\$45,000	Strategic Planning
Korn Ferry	6/13/2024	\$56,400	Personnel Evaluation (\$18,000/year)
Travelers	7/1/2024	\$5,332	Workers Compensation Policy
Citizens Bank	1/1/2025	\$650,000	5-year renewal option on same terms*
Single Wire	10/1/2024	\$9,000	SaaS notification software
GRS	1/1/2025	\$175,000	One-year extension on same terms*
NH Print and Mail	9/24/2024	\$25,503	Form 1099-R Preparation
BNY/Mellon	10/1/2024	\$25,000	Adding NonLagged reporting Capabilities
McLagan	10/3/2024	\$17,500	Investment Positions Evaluations
Liberty Mutual	10/20/2024	\$4,500	Business Owners Insurance Policy
Sara Bownstein	11/1/2024	Hourly Rate	Financial consultant for preparation of ACFR
Bloomberg	11/30/2024	\$26,580	Additional Terminal
De Lage Landen Financial Services	11/12/2024	\$13,968	Copier Lease - 5 years
ePlus Technologies	1/13/2025	\$10,600	Network Engineering Consulting Services
	-	\$1,171,715	

\*As per the NHRS Procurement Policy, "The renewal of a contract under preexisting terms and pricing does not require Board approval. The Executive Director will inform the Board of the approval of such contracts at its next regularly scheduled meeting."



To: NHRS Trustees

From: Jan Goodwin, Executive Director

Date: January 27, 2025

Item: Action:  $\square$  Discussion:  $\square$  Informational:  $\square$ 

Plante Moran has provided auditing services to NHRS for the past seven years. The last contract awarded in 2023 was a five-year contract totaling \$1,263,000. The 2024 fee in the contract awarded was \$257,000. Delays related to the PGV3 implementation prevented NHRS from providing the actuarial report and other financial data timely to allow Plante Moran sufficient time and the appropriate resources to conduct the audit. This resulted in costs for the audit exceeding the contract price by \$53,500.

NHRS requests the Board's approval to increase Plante Moran's contract from \$1,263,000 to \$1,316,500 to pay the increased fees. The System is pursuing reimbursement of 50% of this increase from our software vendor as the delay in the actuarial report was directly tied to deficiencies in the software.

# FYs 25-27 Executive Strategic Plan Summary

ACTION	PRIME MOVER(S)	TARGET DATE	STATUS/COMMENTS	ALIGNMENT WITH NHRS STRATEGIC PLAN
1. Oversee implementation of FYs 25-27 Strategic Plan.	JG	6/30/25	In process.	Goals 1-4.
2. Continue progress on Roadmap for LRS Pension Gold (PGV3) project.	JG/IT/NM/MM	6/30/25	This is a continuation of the five-year project completed in FY 24.	Goal 1.
3. Identify areas for improved efficiencies across the organization, including assessing and improving employee engagement.	JG/ETeam	6/30/25	Ongoing.	Goal 2.
4. Enhance member, beneficiary, and employer education: identify/review industry best practices for education and engagement; adjust existing education programming, as needed.	JG/PIO	6/30/25	In process.	Goal 1.
5. Implement agreed-upon elements of Vision for NHRS.	JG/ETeam	6/30/25	Presented to BOT in 8/24. In process.	Goals 1-4.
6. Attend two professional conferences.	JG	6/30/25	Participated in NASRA's conference 8/3/24 – 8/7/24.	Goal 2.



7. Begin reviewing the	JG/RC/TC	12/31/26	Not started.	Goal 2.
organization structure to				
better align with the system's				
vital functions.				

**Variables:** Legislative changes, personnel changes/turnover, technology changes.



$\langle$		New Hampshire Retirement System	
ļ	To:	Board of Trustees	
	From:	Christine Basha, Communications Specialist II	
	Date:	January 30, 2025	
	Re:	Communications/Legislative Affairs Operating Report	
	Item:	Action: $\Box$ Discussion: $\Box$ Informational: $\boxtimes$	

# **Significant Developments and Priority Issues**

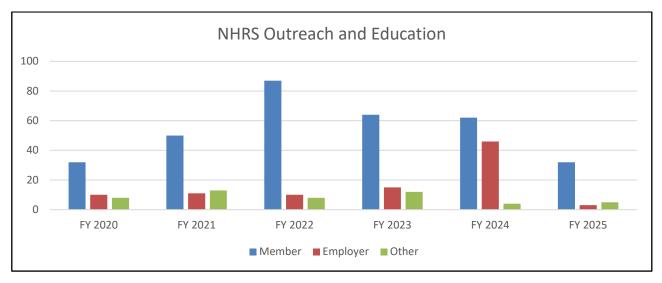
- 13 NHRS-related bills were filed as of January 24, 2025; two bills have been withdrawn by their respective sponsors.
- Implementation efforts for the first of three NHRS-related bills signed into law in 2024 are complete; the other two bills have transitioned to the programming phase.

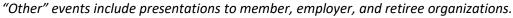
# **Current Months' Highlights – December and January**

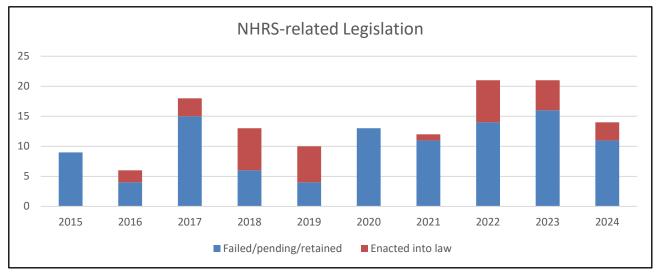
- The Communications team continues to work closely with multiple functional teams to develop messaging for employers, members, and retirees related to employer reporting and *My Account 2.0*.
- Hosted or participated in 10 member education events in December and January.
- PIO achieved six of seven KPMs in December and five of seven in January. Due to staffing changes, PIO missed one of seven KPMs in December; two of seven KPMs were missed in January. We have taken corrective action to ensure the KPMs will be met in February and March.

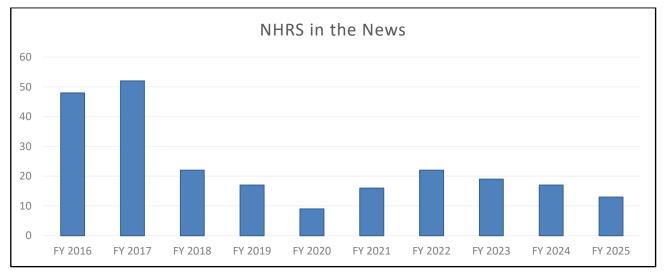
#### **Upcoming Plans & Projects**

- Following 2025 legislative session.
- Updating employer education materials and scheduling employer education presentations beginning in 2025.
- Hosting or participating in 13 member events in February and March.









News articles and commentary in NH and national media outlets in which NHRS is the primary subject.

# FYs 25-27 Communications Strategic Plan Summary

ACTION	PRIME MOVER(S)	TARGET DATE	STATUS/COMMENTS	ALIGNMENT WITH NHRS STRATEGIC PLAN
1. In collaboration with the Finance team, implement new, ongoing employer training program for DRS reporting.*	TBD/PIO/ Finance	FYs 25-26	In progress.	Goal 1.
2. Develop and deploy first annual member survey assessing knowledge of NHRS benefits and preferences for future member education efforts.	TBD/PIO	FY 25	In progress.	Goal 2.
3. Update and expand member education.*	TBD/PIO	FYs 25-26	In progress. All presentation materials and handouts updated to reflect recent legislative changes.	Goal 2.
4. Investigate further integration of PIO and the Contact Center.	TBD/JG/TBD	FYs 25-26	In progress.	Goal 4.
5. Implement ongoing campaign to encourage members and retirees to sign up for <i>My</i> <i>Account 2.0</i> .	TBD/PIO	FY 25	In progress. Ran successful email campaign to increase signups in July and a follow up campaign to members in December.	Goal 1.



6. Assist Finance team in developing and deploying first annual employer survey.	Finance/PIO	FY 26	FY 26 goal.	Goal 2.
7. Maintain positive and constructive working relationship with the NH Legislature.	TBD	FYs 25-27	In progress.	_
8. Develop NHRS Style Guide.	MK/CM	FY 25	Completed.	_
9. Coordinate NHRS interactions with and prepare materials for statutory commission to study retirement benefits and retention of employees scheduled to meet in the summer of 2027.	TBD/PIO	FY 26	FY 26 goal.	_
10. Annually identify, enroll, and complete a professional development opportunity.	TBD	FYs 25-27	TBD.	-

\* - This goal will have a more detailed action plan associated with it, listing more granular actions and target dates.

**Variables:** Legislative changes, personnel changes/turnover, technology changes.



	New Hampshire Retirement System	
To:	Board of Trustees	
From:	Lindsay Doyle, Application Manager	
	Jeffrey O'Connor, IT Infrastructure Manager	
Date:	January 30, 2025	
Re:	Information Technology Operating Report	
Item:	Action: $\Box$ Discussion: $\Box$ Informational: $\boxtimes$	

# Significant Developments and Priority Issues

- The security group identified no new security issues in December or January.
- Cybersecurity Awareness no new issues; phishing testing continues.
- Two medium vulnerabilities remain from our Penetration Test findings; one will be addressed pending spam filter update this coming March.
- Finalizing an agreement with ePlus Technology to secure 40 hours of Senior Network Engineering services.
- Performed a Firewall firmware upgrade to protect against a critical vulnerability discovered by the manufacturer.
- Assisted Investments to publish their first PowerBI report on our company website, establishing a process for future data presentations to the public.
- We are finalizing contract negotiations for an electronic signature system.

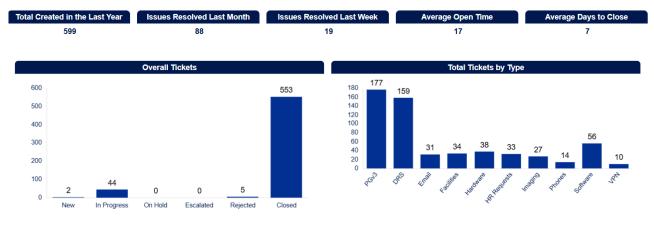
# **Current Months' Highlights – December and January**

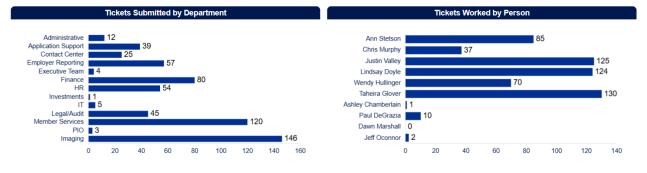
- IT met all seven of its KPMs.
- 72 change requests were approved and deployed into the production environment, 51 of which were PGV3 changes.
- Completed enterprise-wide system patching.
- Completed advanced system and application monitoring.
- Hired a temporary Cloud/Systems Engineer to improve infrastructure operations.
- Hired a Business Analyst and a Project Manager to improve efficiency.
- Retired servers have been cleaned from Active Directory.
- Completed work to support the legislative change HB 1559 violent accidental disability retirement (VADR).

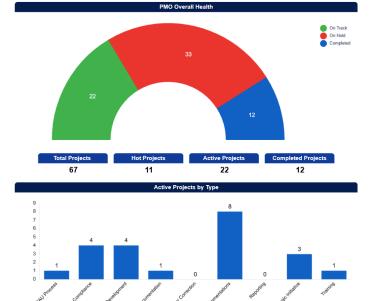
# **Upcoming Plans & Projects**

- Review Group Policy Objects in Active Directory for modification/removal and execute.
- Develop new process for collecting new hire IT information, addressing shortcomings of existing process and building toward a more streamlined, integrated process with existing and new technologies.
- Migration to new spam filtering technology that leverages artificial intelligence for enhanced detection and analysis of incoming emails.
- Strengthen firewall protection by reviewing policies and identifying/removing any policies no longer in use.
- Improve bandwidth 10x between backup storage appliances and hosts.

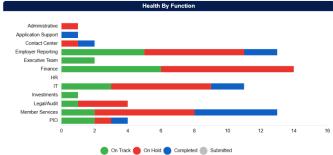


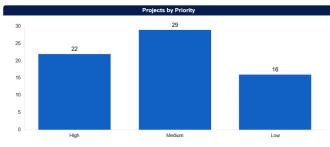




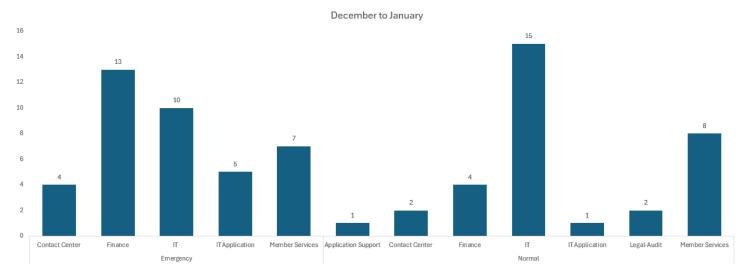


# NHRS PMO Dashboard

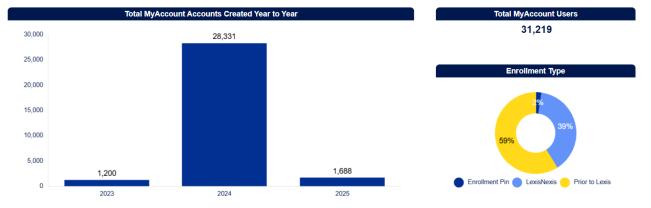


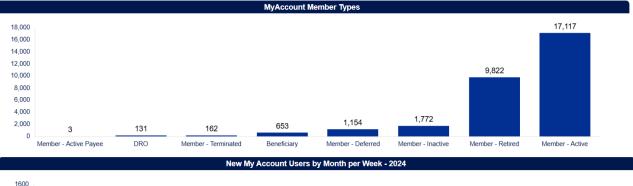


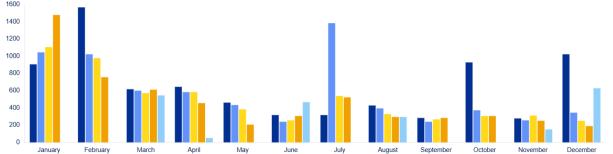
#### **Change Management Totals**



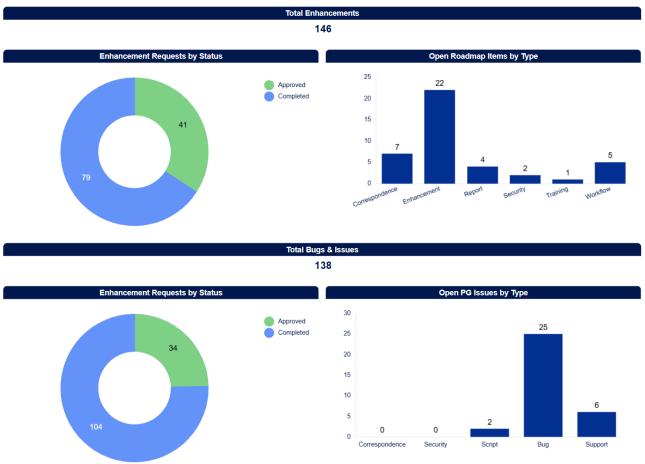
# **MyAccount Totals**







# PensionGold Roadmap & Releases



# FYs 25-27 Information Technology Strategic Plan Summary

ACTION	PRIME MOVER(S)	TARGET DATE	STATUS/COMMENTS	ALIGNMENT WITH NHRS STRATEGIC PLAN
1. Establish timeline for stability with full utilization of PGV3 as intended/described.	TBD/NM/ MM/LD	FY 25	Ongoing.	Goal 1.
2. Return to "normal" operations.	TBD/NM/ MM/LD	FY 25	Ongoing.	Goal 1.
3. Effectively monitor and improve member and employer service levels.	TBD/NM/ MM/LD	FYs 25-26	Ongoing.	Goal 1.
4. Begin the development of a long-term plan for future service enhancements.	TBD/NM/ MM/LD	FYs 25-27	Ongoing.	Goal 1.
5. Develop a Project Management Office (PMO).	JL/LD/AS	FY 25	Completed.	-
6. Investigate further integration of PIO and the Contact Center.	TBD/JG/TBD	FYs 25-26	Ongoing.	_
7. Identify AI platform to be used internally.	TBD/JO	FY 25	Ongoing.	-
8. Provide a roadmap for a mobile application.	TBD	FY 25	Ongoing. Identifying options.	-
9. Optimize the cloud infrastructure.	JL/JO/PD	FY 25	Completed for FY 25.	-



10. Upgrade financial system	TBD/MM/LD	FYs 25-26	5 5 1 5	-
application.			started phase I	
			requirements identified.	
11. Integrate vendor and bank	TBD/JO/PD	FY 25	Not started.	—
account verification services.				
12. Integrate communication	TBD/JO/PD	FY 25	Ongoing.	_
interfaces for external				
systems – PG, BNY, Citizens.				
13. Develop an enterprise	TBD/LD	FY 25	Ongoing. Current in phase	-
Structured Support System			П.	
that incorporates Ticketing,				
Troubleshooting,				
Enhancement Requests, and				
change control.				

**Variables:** Legislative changes, personnel changes/turnover, technology changes.



$\langle$		New Hampshire Retirement System	
	To:	Board of Trustees	
	From:	Raynald Leveque, Chief Investment Officer	
	Date:	February 11, 2025	
	Re:	Investments Operating Report	
	Item:	Action: $\Box$ Discussion: $\Box$ Informational: $\boxtimes$	

# **Significant Developments and Priority Issues**

- December Investment Committee (Committee) Meeting Recap:
  - Staff presented an update on the monthly performance of the public market asset classes of the NHRS, holdings, the Work Plan, and the Global Equity and Fixed Income Plan Implementation.
  - The IIC voted to approve its 2025 meeting schedule.
  - Staff presented an update on the Global Equity and Global Fixed Income Plan Implementation.
  - The Committee heard a presentation from private equity manager Top Tier Capital Partners and voted to commit \$25 million to Venture Velocity Fund V, subject to contract and legal review.
  - The Committee heard a presentation from private credit manager Blackstone and voted to commit \$75 million to Blackstone Multi-Asset Credit, subject to contract and legal review.
  - The Committee heard presentations from non-U.S. equity managers Artisan and Causeway in conjunction with the five-year contract renewal process.
  - The Committee voted to approve a five-year contract renewal for Causeway, for a five-year period through December 2029.
  - The Committee postponed the contract renewal vote for Artisan, due to a lack of quorum.
  - The Committee voted to approve and recommend the Comprehensive Annual Investment Report for the Fiscal Year Ended June 30, 2024, to the Board of Trustees.
- January Investment Committee (Committee) Meeting Recap:
  - Staff presented an update on the monthly performance of the public market asset classes of the NHRS, holdings and the Work Plan.
  - Investment Staff voted for the renewal of the investment management agreement with Artisan Partners, for a two-year period through December 31, 2026.
  - The Committee received a semiannual real estate portfolio update from Townsend and voted to approve the Real Estate Investment Plan for CY 25.

- Callan presented a detailed review of the private equity and private debt assets of the NHRS portfolio, and the Committee voted to approve the Callan CY 25 Private Equity, Private Credit, and Infrastructure Pacing Plan.
- $\circ~$  The Committee voted for the approval of the proposed guidelines for the Infrastructure Asset Class.
- The Committee voted to approve the revised Investment Manual and Policy as presented and directed staff to submit the revised documents to the Board of Trustees at its upcoming meeting, with a formal recommendation from the IIC.

# **Current Months' Highlights – November and December**

As of 11/30/2024	1 Month	Fiscal Year to Date	1-YR	3-YR	5-YR	10-YR
NHRS Total Fund <u>Net</u> Return	+2.28%	+6.02%	+14.90%	+5.25%	+8.32%	+7.58%
Policy Benchmark Return	+2.37%	+6.06%	+16.87%	+5.14%	+8.32%	+7.79%
Net Return Minus Benchmark (in basis points)	+44	-3	-197	+11	0	-21

• Preliminary Performance for November Period:

Source: Callan, NHRS

- KPM Performance for December:
  - Five reported KPMs were achieved; five are not applicable.

As of 12/31/2024	1 Month	Fiscal Year to Date	1-YR	3-YR	5-YR	10-YR
NHRS Total Fund <u>Net</u> Return	-2.05%	+3.85%	+8.37%	+3.16%	+7.41%	+7.39%
Policy Benchmark Return	-1.40%	+4.57%	+11.85%	+4.02%	+7.57%	+7.72%
Net Return Minus Benchmark (in basis points)	-65	-72	-348	-86	-16	-33

- KPM Performance for January:
  - Eight reported KPMs were achieved; one is not applicable. KPM #1 was not achieved: the investment returns for the three and five-year periods trailed the applicable Total Fund benchmark.

- February Committee Meeting:
  - Staff will present an update on the monthly performance of NHRS' public market asset classes and the Work Plan.
  - Boston Trust Walden, U.S. Small Cap Equity manager, will present in conjunction with the five-year contract renewal process.
  - Abel Noser will present the annual Trading Cost Analysis and Commission Sharing Agreement Review.
  - o Callan will present its CY 25 Capital Market Assumptions.

# Securities Litigation Summary

Staff regularly monitors and participates in class action securities litigation to recover NHRS funds lost through investments in public securities. NHRS engages with our custodian bank to participate in standard U.S. class action litigation (the current custodian is BNY Mellon). NHRS hired ISS in 2018 to provide litigation research and claims filing solutions for non-standard U.S. class action and international securities litigation. The table below reports the annual historical recoveries for the NHRS.

Calendar Year	·	Amount
2005	\$	624,261
2006	\$	1,373,631
2007	\$	2,410,390
2008	\$	1,980,702
2009	\$	1,972,216
2010	\$	1,374,754
2011	\$	550,324
2012	\$	835,766
2013	\$	310,321
2014	\$	803,621
2015	\$	627,131
2016	\$	670,404
2017	\$	1,280,969
2018	\$	279,783
2019	\$	675,406
2020	\$	289,418
2021	\$	483,889
2022	\$	265,959
2023	\$	754,938
2024 through December 31st	\$	326,643
Total:	\$	17,890,525

Source: BNY, ISS, NHRS, Northern Trust

Date: 1/30/25 Approved: 8/23/24

# FYs 25-27 Investments Strategic Plan Summary

ACTION	PRIME MOVER(S)	TARGET DATE	STATUS/COMMENTS	ALIGNMENT WITH NHRS STRATEGIC PLAN
1. Complete a 5-yr Strategic Plan for the Investments department at NHRS for approval with the IIC and the BOT.	RL/IIC/BOT	8/24	Completed. IIC approved Investment Office Strategic plan at the 7/24 IIC meeting. BOT approved Investment Office Strategic Plan in the 8/24 BOT meeting.	Goal 3.
2. Develop and gain approval for plan to expanding the talent and resources to support the Investment Office.	RL/JG	FYs 25-26	In Process. Working with recruiting firm to hire senior investment officer for Investment Office.	Goal 3.
3. Review the NHRS portfolio and Investment Office cost benchmarking study.	RL	FY 25	In Process. Completed presentation of Global Equity and Global Fixed Income strategic review will occur at the 10/24 IIC meeting. CEM Cost Benchmarking study currently in process with the Finance & Accounting department.	Goal 3.
4. Address areas of cost efficiencies in the NHRS portfolio and/or Investment team services.	RL	FYs 25-27	Not Started. Work estimated to begin at the conclusion of the CEM Cost Benchmarking study.	Goal 3.



5. Work with Legal, IT, and Finance to implement middle and back-office capabilities for the Investment Office.	RL/JG/ TC/ TBD/MM	FYs 25-27	In Process. Positions for additional headcount in Legal, Finance and IT under review with McLagan.	Goal 3.
6. Develop and gain approval for specific technology plan to support the Investment Office.	RL/JG	FYs 25-27	Not Started. Work estimated to begin in Q1- 2025.	Goal 3.
7. Investigate and recommend additional services for fee monitoring and validation at the total plan and asset class levels.	RL	FYs 25-26	Not Started. Work estimated to begin in Q1- 2025.	Goal 4.
8. Identify, enroll and complete professional development for Investment Office.	RL	FYs 25-26	Not Started. Work estimated to begin in Q2- 2025.	Goal 4.
9. Assure compliance with all relevant statutory and regulatory requirements.	RL/IIC/BOT	6/25	Ongoing. In compliance with all relevant statutory and regulatory requirements.	Goal 2.
10. Complete Work Plans for Alternatives Asset Classes.	RL/IIC	12/25	Not Started. Delivery of 2025 Work Plans for Alternatives Asset Classes will be presented to the IIC in 2/25.	Goal 2.
11. Maintain investment expenses within budget.	RL/IIC	6/25	Ongoing. Expenses in line with Trust Budget.	Goal 2.

**Variables:** Legislative changes, personnel changes/turnover, technology changes.



$\langle$		New Hampshire Retirement System	
	To:	Board of Trustees	
	From:	Nancy J. Miller, Director of Member Services	
	Date:	January 30, 2024	
	Re:	Member Services Operating Report	
	Item:	Action: $\Box$ Discussion: $\Box$ Informational: $\boxtimes$	

### **Significant Developments and Priority Issues**

- The Group II violent accidental disability retirement (VADR) benefit calculation was received from LRS and tested by Member Services. It is in PG production for utilization starting in February.
- The 2024 medical subsidy eligibility questionnaires were issued in the last week of January.
- January Insurance Rate file changes were successfully submitted by our large TPAs and processed in PG. This was accomplished with significant collaboration by NHRS project managers, staff and TPA representatives.

# **Current Months' Highlights – December and January**

- Annual Member Statements were issued in December, as planned.
- GRS completed the review of Member Services option factor testing in January and we are on target to have the new factors utilized for benefit calculations starting March 1.
- Member Benefits continues to focus on reducing backlogged benefit finalizations now that employer reporting has reached a much more current and complete level.
- We are recruiting to fill two vacancies in the department.

# **Upcoming Plans & Projects**

- We will be focused on issuing the first of our VADR benefit payments in February.
- The new Group II multiplier calculation will be our next area of legislative change carried out in PG. We are awaiting the delivery of it from LRS.
- The new option factors will be entered into PG during February for final review before going live March 1.

	2025	2024	2023	2022	2021	2020
June		77	105	106	126	98
May		81	88	110	92	99
April		93	76	117	95	100
March		74	97	104	97	85
February		94	89	105	93	94
January	161	125	131	200	154	142
December	75	64	88	71	78	66
November	81	90	66	91	113	90
October	103	103	110	128	118	96
September	119	143	116	128	129	97
August	140	180	162	210	147	137
July	606	579	731	775	694	703
Total	1,285	1,703	1,859	2,145	1936	1,807

NHRS New Retirement Applicants Placed on Payroll

NHRS Retirement Appointment Total by Month for Fiscal Year

A finds feethement reproduction by Month for Fiscal Feat								
	2025	2024	2024 2023 2022		2021	2020		
June		77	55	25	42	60		
May		187	115	34	34	129		
April		137	84	49	135	166		
March		67	36	22	38	188		
February		52	25	15	44	75		
January	44	29	22	13	25	60		
December	33	49	15	13	39	65		
November	48	54	15	19	37	96		
October	57	32	24	23	48	96		
September	30	33	10	23	44	61		
August	52	46	14	19	32	76		
July	56	38	15	25	28	68		
Total	320	801	430	280	546	1,138		

# Our Mission: To provide secure retirement benefits and superior service.

# FYs 25-27 Member Services Strategic Plan Summary

	ACTION	PRIME MOVER(S)	TARGET DATE	STATUS/COMMENTS	ALIGNMENT WITH NHRS STRATEGIC PLAN
1.	Adhere to and complete PGV3 Roadmap enhancements and projects (i.e. teacher salary contract project, Community College population project).	NM/MS/IT/ LRS	FYs 25-27	Some projects in flight, others having dates prioritized over upcoming calendar year quarters.	Goal 1.
2.	Develop and deliver Project Nexus Employer Reporting Trainings (earnable compensation, paycodes project, salary variance).	NM/MS/IT/ Finance	FY 25	Completed.	Goal 1.
3.	Coordinate, test and load new benefit option factors in PGV3.	NM/MS/IT/ LRS/GRS	FY 25	On target for 3/1/25 switch over to new Option Factors in PG.	-
4.	Create, design and implement a MS PGV3 Dashboard that correlates to KPMs.	NM/MS/IT/ LRS	Start 6/24 Finalized FY 25	In process, MS provided materials for LRS review.	Goals 1 & 3.
5.	Design, test and implement legislative changes relative to Benefit calculations according to effective dates determined in statute.	NM/MS/IT/ LRS	FY 25	TSA completed. VADR Benefit targeted for production in February 2025, awaiting update on delivery date for Group II Multiplier.	-



6. Implement new and adjusted	NM/MS/IT/	FYs 25-26	Not Started.	-
procedures for Retiree Death	Legal/			
Case processing to realign	Finance			
NHRS collection procedures				
(audit finding).				

**Variables:** Legislative changes, personnel changes/turnover, technology changes.



$\langle$		New Hampshire Retirement System	
	To:	Board of Trustees	
	From:	Marie A. Mullen, Director of Finance	
	Date:	January 28, 2025	
	Re:	Finance Operating Report	
	Item:	Action: $\Box$ Discussion: $\Box$ Informational: $\boxtimes$	

### **Significant Developments and Priority Issues**

- We have collected all outstanding balances owed by Employers for FY 24. Employer Reporting is now focused on FY 25 and has made significant progress on delinquent employer reporting and posting payments.
- Corrective Action Plan is in process to eliminate FY 24 audit finding.

### **Current Months' Highlights – December and January**

- Finance completed seven of 12 KPMs for December and eight of 12 for January. For December, two KPMs did not have deliverables and two were suspended due to the PGV3 implementation. One was not met as we continue to get caught up on our monthly bank reconciliations. For January, one KPM did not have a deliverable for the month and two were suspended due to the PGV3 implementation. One was not met as we continue to get caught up on our monthly bank reconciliations.
- Continue the project with Citizens Bank to automate posting of cash payments received from employers through BillPay. Estimated go live date is March 2025.
- Testing the invoice approval workflow automation project and completing documentation.
- FY 25 year-to-date spending through December was within budget including the balance forward from the previous year.
- Completed GASB 68/75 Proportional Share audits with unmodified opinions.
- Successfully completed and distributed over 46,000 2024 Form 1099-Rs to beneficiaries.

### **Upcoming Plans & Projects**

- Continue work on identified internal and external audit improvements.
- Continued improvements and enhancements to PGV3.
- CEM Benchmarking data for Investments.
- Management Fee Payment transition project.
- Investments automated document collection project.

Division: Finance Executive Team Member: M. Mullen

# FYs 25-27 Finance Strategic Plan Summary

ACTION	PRIME MOVER(S)	TARGET DATE	STATUS/COMMENTS	ALIGNMENT WITH NHRS STRATEGIC PLAN
1. Complete Finance organizational changes.	MM/JG/RC	Q1-FY 25	Complete.	Goal 1.
2. Employer Reporting functions current for Year-end and Member Statements.	MM	Q2-FY 25	Complete.	Goal 1.
3. Develop Employer Reporting internal training manual.	MM/KN/IT	Q4-FY 25	In coordination with IT, have documented several processes and developed list and prioritization for other items to be included.	Goal 1.
4. Develop Employer training program for DRS reporting.*	MM/KN/IT/ Finance	Ongoing.	Not started.	Goal 1.
5. Develop and deploy first annual employer survey.	MM/JG/PIO/ KN	Q4-FY 25	In coordination with PIO. Not started.	Goals 1 & 2.
6. Improve and develop Employer Reporting dashboards and reports.	MM/KN/IT	Q4-FY 25	Currently using ad hoc reports. Additional dashboards have been developed utilizing excel. In coordination with IT, build automated dashboard reports using Power BI.	Goals 1 & 2.



7. Implementation of financial software applications to automate processes, improve reporting, streamline financial analysis, and improve security.*	MM/IT/ J. Gordon	Ongoing.	In coordination with IT – in process of implementing automated workflow for invoice approvals and automation of posting cash receipts through Citizens Bill Pay. Developing requirements for financial system and new chart of accounts.	Goal 2.
8. Implementation of Finance related items in Investment Strategic Plan.*	MM/JG/ Investments	Ongoing.	In coordination with Investments. Transition of processing management fee payments direct to Investment Accounts and automate the collection of investment documentation for cap calls, financials, cap statements, etc.	Goal 3.
<ol> <li>Assist and participate in Intra-department training program.</li> </ol>	Finance	Q2-FY 25	Complete.	Goal 4.
10. Develop schedule to update Finance policies and procedures.	MM/JG/KN/ J. Gordon	Q4-FY 25	Not started.	_
11. Attend Professional Conference.	MM	Q2-FY 25	Complete.	Goal 4.

\* - This goal will have a more detailed action plan associated with it, listing more granular actions and target dates.

**Variables:** Legislative changes, personnel changes/turnover, technology changes.





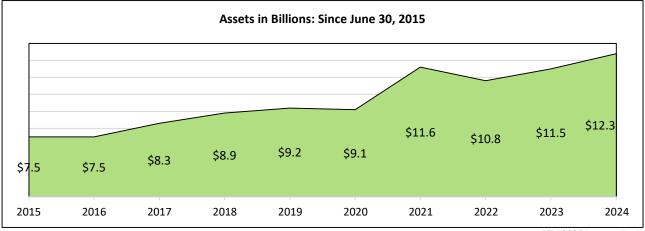
# NHRS DASHBOARD: FY 2025 Second Quarter

For the period July 1, 2024, to December 31, 2024

Updated: February 2025

## TRUST FUND





\*FY 2025 is unaudited

### **INVESTMENT PERFORMANCE**

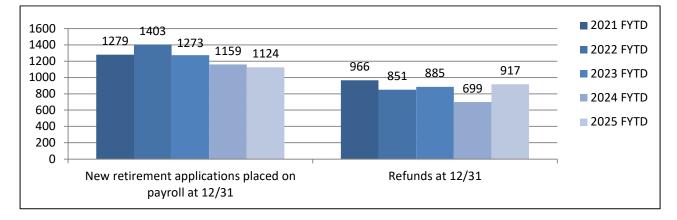
Net-of-fees returns	FYTD - 12/31/24*	1 yr. at 6/30/24	3 yr. at 6/30/24	5 yr. at 6/30/24	10 yr. at 6/30/24
Total Fund Composite	3.9%	8.8%	3.4%	7.7%	7.0%
Peer comparison (percentile)	NA	68th	36th	36th	27th

Assumed Rate of Return: 6.75%; \* - Annualized; valuation of real estate and alternative investments lagged three months.

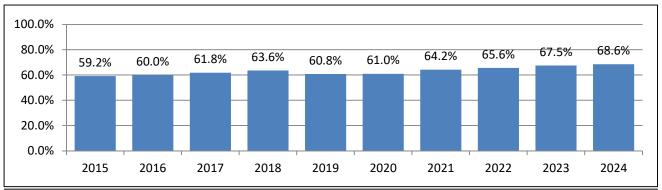
#### KEY PERFORMANCE MEASURES

October 2024: 94.2%	November 2024: 95.08%	December 2024: 95.52%	12-month rolling average: 96.06%
			Target: 95%

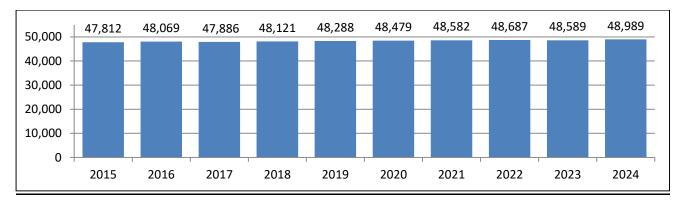
### RETIREMENTS AND REFUNDS

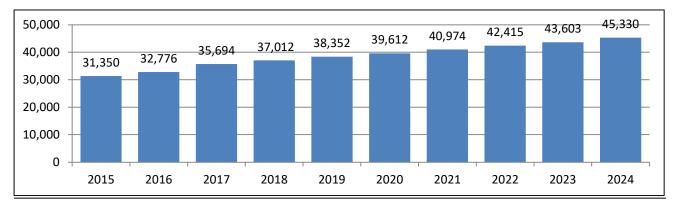


### **ACTUARIAL FUNDED RATIO**



Funded ratio impacted by reductions to assumed rate of return and revised actuarial assumptions in 2016 and 2020 and for revised actuarial assumptions in 2023.





### **RETIREES & BENEFICIARIES**

**ACTIVE MEMBERS** 

### FY 2025 BUDGET vs. ACTUAL

Investments & Non-Investment Administrative Expenses

July 1, 2024 through December 31, 2024

				25 Balance rward and					
	т	otal Budget	Т	ransfers	F	YTD Budget	Actual	[	Difference
Investment									
Administrative Expenses									
Internal	\$	2,455,695	\$	-	\$	1,227,849	\$ 558,233	\$	669,616
External (Manager & Custodial)	\$	36,599,000	\$	-	\$	18,299,500	\$ 15,939,749	\$	2,359,751
Subtotal	\$	39,054,695	\$	-	\$	19,527,349	\$ 16,497,982	\$	3,029,367
Non-Investment									
Administrative Expenses									
Internal (Statutory Administrative)	\$	13,632,278	\$	463,680	\$	6,815,223	\$ 7,269,375	\$	9,528
External (Actuary, Legal, Audit)	\$	1,839,137	\$	-	\$	919,569	\$ 961,644	\$	(42,075)
Subtotal	\$	15,471,415	\$	463,680	\$	7,734,792	\$ 8,231,019	\$	(32,547)
Total Administrative Expense	\$	54,526,110	\$	463,680	\$	27,262,141	\$ 24,729,001	\$	2,996,820

			Now Hampshire	e Retirement Sys	tom		
<u> </u>				lon-Investment A		vnonsos	
			Budget vs. Act			xpenses	
				rough December	31 2024		
			FY 2025	lough booonibol	01,2024		
			FY24 Balance				
		TOTAL	Forward and	FYTD	FYTD		
		Budget	Transfers	Budget	Actual	Difference	Variance Explanations
1	Investment Administrative Expenses						
2	Internal Investment Expenses						
3		\$ 1,570,743		\$ 785,372			
5		66,400		33,200	9,851	23,349	
6		5,852		2,926	390	2,536	
7		350,000		175,000	51,984	123,016	
8		400,575		200,288	16,333	183,955	
9	0	18,525		9,263	8,021	1,242	
10		43,600		21,800	10,804	10,996	
11		2,455,695	-	1,227,849	558,233	669,616	
12 13							
		21 250 000		15 625 000	14 144 060	1 490 021	
14 15		31,250,000 3,200,000		15,625,000	14,144,069 761,249	1,480,931 838,751	
15		3,200,000	-	17,225,000	14,905,318	2,319,682	
17		54,450,000	-	17,223,000	17,303,310	2,010,002	
18							
19	· · ·	705.000		352,500	352,194	306	
20		700,000		350,000	325,000	25,000	
21		550.000		275,000	339,444	(64,444)	Expenses for FY24 paid in FY25
22		194,000		97,000	17,793	79,207	
23		2,149,000	-	1,074,500	1,034,431	40,069	
24		36,599,000	-	18,299,500	15,939,749	2,359,751	
25							
26	Total Investment Internal & External	\$ 39,054,695	\$-	\$ 19,527,349	\$ 16,497,982	\$ 3,029,367	
	Non-Investment Administrative Expenses						
28	Internal Non-Investment Expenses						Timing of one-time expenses for longevity and
~~							
29							
1		¢ 9.050.039	¢ 00.740	¢ 4 470.060	¢ 4 602 022	¢ (04.216)	increased overtime for PGV3. Transfer will be
20	Salaries & Benefits	\$ 8,959,938			\$ 4,603,033 37,314		
	Salaries & Benefits Current Expenses	232,075	8,709	116,038	37,314	\$ 87,433	increased overtime for PGV3. Transfer will be
31	Salaries & Benefits Current Expenses Rents & Leases	232,075 461,000	8,709 38	116,038 229,583	37,314 223,963	\$ 87,433 \$ 5,658	increased overtime for PGV3. Transfer will be
31 32	Salaries & Benefits Current Expenses Rents & Leases Equipment	232,075 461,000 28,950	8,709 38 693	116,038 229,583 14,475	37,314 223,963 374	\$ 87,433 \$ 5,658 \$ 14,794	increased overtime for PGV3. Transfer will be
31 32 33	Salaries & Benefits Current Expenses Rents & Leases Equipment Technology-Software & Hardware	232,075 461,000 28,950 2,918,000	8,709 38 693 389,217	116,038 229,583 14,475 1,459,000	37,314 223,963 374 1,546,908	\$ 87,433 \$ 5,658 \$ 14,794 \$ 301,309	increased overtime for PGV3. Transfer will be
31 32 33 34	Salaries & Benefits Current Expenses Rents & Leases Equipment Technology-Software & Hardware Payroll & Other Services	232,075 461,000 28,950	8,709 38 693	116,038 229,583 14,475	37,314 223,963 374	\$ 87,433 \$ 5,658 \$ 14,794 \$ 301,309	increased overtime for PGV3. Transfer will be done to balance account.
31 32 33	Salaries & Benefits Current Expenses Rents & Leases Equipment Technology-Software & Hardware Payroll & Other Services	232,075 461,000 28,950 2,918,000 59,890	8,709 38 693 389,217 1,427	116,038 229,583 14,475 1,459,000 29,945	37,314 223,963 374 1,546,908 23,245	\$ 87,433 \$ 5,658 \$ 14,794 \$ 301,309 \$ 8,127	increased overtime for PGV3. Transfer will be done to balance account.
31 32 33 34 35	Salaries & Benefits Current Expenses Rents & Leases Equipment Technology-Software & Hardware Payroll & Other Services	232,075 461,000 28,950 2,918,000	8,709 38 693 389,217	116,038 229,583 14,475 1,459,000	37,314 223,963 374 1,546,908	\$ 87,433 \$ 5,658 \$ 14,794 \$ 301,309 \$ 8,127 \$ (90,296)	increased overtime for PGV3. Transfer will be done to balance account.
31 32 33 34 35	Salaries & Benefits Current Expenses Rents & Leases Equipment Technology-Software & Hardware Payroll & Other Services Independent Med. Examiners/Consultants	232,075 461,000 28,950 2,918,000 59,890 250,000	8,709 38 693 389,217 1,427 699	116,038 229,583 14,475 1,459,000 29,945 125,000	37,314 223,963 374 1,546,908 23,245 215,995	\$ 87,433 \$ 5,658 \$ 14,794 \$ 301,309 \$ 8,127 \$ (90,296)	increased overtime for PGV3. Transfer will be done to balance account. Timing of expenses to budget allocation. Will balance by end of year. Unanticipated expensesfor temporary employees
31 32 33 34 35	Salaries & Benefits Current Expenses Rents & Leases Equipment Technology-Software & Hardware Payroll & Other Services Independent Med. Examiners/Consultants Retiree Health Insurance	232,075 461,000 28,950 2,918,000 59,890 250,000	8,709 38 693 389,217 1,427 699	116,038 229,583 14,475 1,459,000 29,945 125,000	37,314 223,963 374 1,546,908 23,245 215,995	\$ 87,433 \$ 5,658 \$ 14,794 \$ 301,309 \$ 8,127 \$ (90,296)	increased overtime for PGV3. Transfer will be done to balance account.
31 32 33 34 35 36	Salaries & Benefits Current Expenses Rents & Leases Equipment Technology-Software & Hardware Payroll & Other Services Independent Med. Examiners/Consultants Retiree Health Insurance	232,075 461,000 28,950 2,918,000 59,890 250,000	8,709 38 693 389,217 1,427 699	116,038 229,583 14,475 1,459,000 29,945 125,000	37,314 223,963 374 1,546,908 23,245 215,995	\$ 87,433 \$ 5,658 \$ 14,794 \$ 301,309 \$ 8,127 \$ (90,296) \$ 17,530	increased overtime for PGV3. Transfer will be done to balance account. Timing of expenses to budget allocation. Will balance by end of year. Unanticipated expensesfor temporary employees
31 32 33 34 35 36 37 38	Salaries & Benefits Current Expenses Rents & Leases Equipment Technology-Software & Hardware Payroll & Other Services Independent Med. Examiners/Consultants Retiree Health Insurance Other Subtotal Internal Non-Invest. Adm	232,075 461,000 28,950 2,918,000 59,890 250,000 165,200	8,709 38 693 389,217 1,427 699 60	116,038 229,583 14,475 1,459,000 29,945 125,000 82,600	37,314 223,963 374 1,546,908 23,245 215,995 65,130	\$ 87,433 \$ 5,658 \$ 14,794 \$ 301,309 \$ 8,127 \$ (90,296) \$ 17,530	increased overtime for PGV3. Transfer will be done to balance account. Timing of expenses to budget allocation. Will balance by end of year. Unanticipated expensesfor temporary employees related to PG implementation. Transfer will be
31 32 33 34 35 36 37	Salaries & Benefits Current Expenses Rents & Leases Equipment Technology-Software & Hardware Payroll & Other Services Independent Med. Examiners/Consultants Retiree Health Insurance Other Subtotal Internal Non-Invest. Adm	232,075 461,000 28,950 2,918,000 59,890 250,000 165,200 557,225	8,709 38 693 389,217 1,427 699 60 34,089	116,038 229,583 14,475 1,459,000 29,945 125,000 82,600 278,613	37,314 223,963 374 1,546,908 23,245 215,995 65,130 553,413	\$ 87,433 \$ 5,658 \$ 14,794 \$ 301,309 \$ 8,127 \$ (90,296) \$ 17,530 \$ (240,711)	increased overtime for PGV3. Transfer will be done to balance account. Timing of expenses to budget allocation. Will balance by end of year. Unanticipated expensesfor temporary employees related to PG implementation. Transfer will be
31 32 33 34 35 36 37 38	Salaries & Benefits Current Expenses Rents & Leases Equipment Technology-Software & Hardware Payroll & Other Services Independent Med. Examiners/Consultants Retiree Health Insurance Other Subtotal Internal Non-Invest. Adm	232,075 461,000 28,950 2,918,000 59,890 250,000 165,200 557,225	8,709 38 693 389,217 1,427 699 60 34,089	116,038 229,583 14,475 1,459,000 29,945 125,000 82,600 278,613	37,314 223,963 374 1,546,908 23,245 215,995 65,130 553,413	\$ 87,433 \$ 5,658 \$ 14,794 \$ 301,309 \$ 8,127 \$ (90,296) \$ 17,530 \$ (240,711)	increased overtime for PGV3. Transfer will be done to balance account. Timing of expenses to budget allocation. Will balance by end of year. Unanticipated expensesfor temporary employees related to PG implementation. Transfer will be done to balance account.
31 32 33 34 35 36 37 38 39 42	Salaries & Benefits Current Expenses Rents & Leases Equipment Technology-Software & Hardware Payroll & Other Services Independent Med. Examiners/Consultants Retiree Health Insurance Other Subtotal Internal Non-Invest. Adm External Non-Investment Expenses	232,075 461,000 28,950 2,918,000 59,890 250,000 165,200 557,225 13,632,278	8,709 38 693 389,217 1,427 699 60 34,089	116,038 229,583 14,475 1,459,000 29,945 125,000 82,600 278,613 <b>6,815,223</b>	37,314 223,963 374 1,546,908 23,245 215,995 65,130 553,413 <b>7,269,375</b>	\$ 87,433 \$ 5,658 \$ 14,794 \$ 301,309 \$ 8,127 \$ (90,296) \$ 17,530 \$ (240,711) <b>9,528</b>	increased overtime for PGV3. Transfer will be done to balance account. Timing of expenses to budget allocation. Will balance by end of year. Unanticipated expensesfor temporary employees related to PG implementation. Transfer will be done to balance account.
31 32 33 34 35 36 37 38 39 42 43	Salaries & Benefits Current Expenses Rents & Leases Equipment Technology-Software & Hardware Payroll & Other Services Independent Med. Examiners/Consultants Retiree Health Insurance Other Subtotal Internal Non-Invest. Adm External Non-Investment Expenses Actuarial Fees	232,075 461,000 28,950 2,918,000 59,890 250,000 165,200 557,225 13,632,278 \$ 253,000	8,709 38 693 389,217 1,427 699 60 34,089 <b>463,680</b>	116,038 229,583 14,475 1,459,000 29,945 125,000 82,600 278,613 <b>6,815,223</b>	37,314 223,963 374 1,546,908 23,245 215,995 65,130 553,413 <b>7,269,375</b> \$ 140,099	\$ 87,433 \$ 5,658 \$ 14,794 \$ 301,309 \$ 8,127 \$ (90,296) \$ 17,530 \$ (240,711) <b>9,528</b> \$ (13,599)	increased overtime for PGV3. Transfer will be done to balance account. Timing of expenses to budget allocation. Will balance by end of year. Unanticipated expensesfor temporary employees related to PG implementation. Transfer will be done to balance account.
31 32 33 34 35 36 37 38 39 42 43 44	Salaries & Benefits Current Expenses Rents & Leases Equipment Technology-Software & Hardware Payroll & Other Services Independent Med. Examiners/Consultants Retiree Health Insurance Other Subtotal Internal Non-Invest. Adm External Non-Investment Expenses Actuarial Fees Legal Fees	\$ 232,075 461,000 28,950 2,918,000 59,890 250,000 165,200 557,225 13,632,278 \$ 253,000 225,000	8,709 38 693 389,217 1,427 699 60 34,089 <b>463,680</b>	116,038 229,583 14,475 1,459,000 29,945 125,000 82,600 278,613 <b>6,815,223</b> 126,500 1126,500 112,500	37,314 223,963 374 1,546,908 23,245 215,995 65,130 553,413 <b>7,269,375</b> \$ 140,099 46,795	\$ 87,433 \$ 5,658 \$ 14,794 \$ 301,309 \$ 8,127 \$ (90,296) \$ 17,530 \$ (240,711) 9,528 \$ (13,599) 65,705	increased overtime for PGV3. Transfer will be done to balance account. Timing of expenses to budget allocation. Will balance by end of year. Unanticipated expensesfor temporary employees related to PG implementation. Transfer will be done to balance account.
31 32 33 34 35 36 37 38 39 42 43 44 45	Salaries & Benefits Current Expenses Rents & Leases Equipment Technology-Software & Hardware Payroll & Other Services Independent Med. Examiners/Consultants Retiree Health Insurance Other Subtotal Internal Non-Invest. Adm External Non-Investment Expenses Actuarial Fees Legal Fees Audit Fees	\$ 232,075 461,000 28,950 2,918,000 59,890 250,000 165,200 557,225 13,632,278 \$ 253,000 225,000 357,000	8,709 38 693 389,217 1,427 699 60 34,089 <b>463,680</b>	116,038 229,583 14,475 1,459,000 29,945 125,000 82,600 278,613 <b>6,815,223</b> 126,500 112,500 112,500	37,314 223,963 374 1,546,908 23,245 215,995 65,130 553,413 <b>7,269,375</b> \$ 140,099 46,795 177,500	\$ 87,433 \$ 5,658 \$ 14,794 \$ 301,309 \$ 8,127 \$ (90,296) \$ 17,530 \$ (240,711) <b>9,528</b> \$ (13,599) 65,705 1,000	increased overtime for PGV3. Transfer will be done to balance account. Timing of expenses to budget allocation. Will balance by end of year. Unanticipated expensesfor temporary employees related to PG implementation. Transfer will be done to balance account.
31 32 33 34 35 36 37 38 39 42 43 44 45 46	Salaries & Benefits Current Expenses Rents & Leases Equipment Technology-Software & Hardware Payroll & Other Services Independent Med. Examiners/Consultants Retiree Health Insurance Other Subtotal Internal Non-Invest. Adm External Non-Investment Expenses Actuarial Fees Legal Fees Audit Fees Other Consulting Fees Other Consulting Fees	\$ 253,000 \$ 253,000 \$ 253,000 259,890 250,000 165,200 \$ 253,000 2557,225 13,632,278 \$ 253,000 225,000 357,000 165,000	8,709 38 693 389,217 1,427 699 60 34,089 <b>463,680</b>	116,038 229,583 14,475 1,459,000 29,945 125,000 82,600 278,613 <b>6,815,223</b> 126,500 112,500 178,500 82,500	37,314 223,963 374 1,546,908 23,245 215,995 65,130 553,413 <b>7,269,375</b> \$ 140,099 46,795 177,500 5,000	\$ 87,433 \$ 5,658 \$ 14,794 \$ 301,309 \$ 8,127 \$ (90,296) \$ 17,530 \$ (240,711) <b>9,528</b> \$ (13,599) 65,705 1,000 77,500	increased overtime for PGV3. Transfer will be done to balance account. Timing of expenses to budget allocation. Will balance by end of year. Unanticipated expensesfor temporary employees related to PG implementation. Transfer will be done to balance account. Timing of expenses to budget allocation. Will balance by end of year.
31 32 33 34 35 36 37 38 39 42 43 44 45 46 47	Salaries & Benefits Current Expenses Rents & Leases Equipment Technology-Software & Hardware Payroll & Other Services Independent Med. Examiners/Consultants Retiree Health Insurance Other Subtotal Internal Non-Invest. Adm External Non-Investment Expenses Actuarial Fees Legal Fees Audit Fees Other Consulting Fees Insurance Expense	\$ 253,000 \$ 253,000 2557,225 13,632,278 \$ 253,000 357,000 165,200 \$ 253,000 357,000 165,000 357,000 165,000 56,500	8,709 38 693 389,217 1,427 699 60 34,089 <b>463,680</b>	116,038 229,583 14,475 1,459,000 29,945 125,000 82,600 278,613 <b>6,815,223</b> 126,500 112,500 172,500 172,500 82,500 28,250	37,314 223,963 374 1,546,908 23,245 215,995 65,130 553,413 7,269,375 \$ 140,099 46,795 177,500 5,000 53,892	\$ 87,433 \$ 5,658 \$ 14,794 \$ 301,309 \$ 8,127 \$ (90,296) \$ 17,530 \$ (240,711) <b>9,528</b> \$ (13,599) 65,705 1,000 77,500 (25,642)	increased overtime for PGV3. Transfer will be done to balance account. Timing of expenses to budget allocation. Will balance by end of year. Unanticipated expensesfor temporary employees related to PG implementation. Transfer will be done to balance account.
31 32 33 34 35 36 37 38 39 42 43 44 45 46 47 48	Salaries & Benefits Current Expenses Rents & Leases Equipment Technology-Software & Hardware Payroll & Other Services Independent Med. Examiners/Consultants Retiree Health Insurance Other Subtotal Internal Non-Invest. Adm External Non-Investment Expenses Actuarial Fees Legal Fees Audit Fees Other Consulting Fees Insurance Expense Local Custodian	\$ 232,075 461,000 28,950 2,918,000 59,890 250,000 165,200 557,225 13,632,278 \$ 253,000 225,000 357,000 165,000 165,000 118,000	8,709 38 693 389,217 1,427 699 60 34,089 <b>463,680</b>	116,038 229,583 14,475 1,459,000 29,945 125,000 82,600 278,613 <b>6,815,223</b> 126,500 112,500 112,500 112,500 178,500 82,500 28,250 59,000	37,314 223,963 374 1,546,908 23,245 215,995 65,130 553,413 <b>7,269,375</b> \$ 140,099 46,795 177,500 5,000	\$ 87,433 \$ 5,658 \$ 14,794 \$ 301,309 \$ 8,127 \$ (90,296) \$ 17,530 \$ (240,711) <b>9,528</b> \$ (13,599) 65,705 1,000 77,500 (25,642) 20,642	increased overtime for PGV3. Transfer will be done to balance account. Timing of expenses to budget allocation. Will balance by end of year. Unanticipated expensesfor temporary employees related to PG implementation. Transfer will be done to balance account. Timing of expenses to budget allocation. Will balance by end of year.
31 32 33 34 35 36 37 38 39 42 43 44 45 46 47	Salaries & Benefits Current Expenses Rents & Leases Equipment Technology-Software & Hardware Payroll & Other Services Independent Med. Examiners/Consultants Retiree Health Insurance Other Subtotal Internal Non-Invest. Adm External Non-Investment Expenses Actuarial Fees Legal Fees Audit Fees Other Consulting Fees Insurance Expense Local Custodian	\$ 253,000 \$ 253,000 2557,225 13,632,278 \$ 253,000 357,000 165,200 \$ 253,000 357,000 165,000 357,000 165,000 56,500	8,709 38 693 389,217 1,427 699 60 34,089 <b>463,680</b>	116,038 229,583 14,475 1,459,000 29,945 125,000 82,600 278,613 <b>6,815,223</b> 126,500 112,500 172,500 172,500 82,500 28,250	37,314 223,963 374 1,546,908 23,245 215,995 65,130 553,413 7,269,375 \$ 140,099 46,795 177,500 5,000 53,892	\$ 87,433 \$ 5,658 \$ 14,794 \$ 301,309 \$ 8,127 \$ (90,296) \$ 17,530 \$ (240,711) <b>9,528</b> \$ (13,599) 65,705 1,000 77,500 (25,642)	increased overtime for PGV3. Transfer will be done to balance account. Timing of expenses to budget allocation. Will balance by end of year. Unanticipated expensesfor temporary employees related to PG implementation. Transfer will be done to balance account. Timing of expenses to budget allocation. Will balance by end of year.
31 32 33 34 35 36 37 38 39 42 43 44 45 46 47 48	Salaries & Benefits Current Expenses Rents & Leases Equipment Technology-Software & Hardware Payroll & Other Services Independent Med. Examiners/Consultants Retiree Health Insurance Other Subtotal Internal Non-Invest. Adm External Non-Investment Expenses Actuarial Fees Legal Fees Audit Fees Other Consulting Fees Insurance Expense Local Custodian Other	\$ 253,000 357,000 2557,225 13,632,278 \$ 253,000 165,200 \$ 255,000 357,000 165,000 357,000 165,000 118,000 164,637	8,709 38 693 389,217 1,427 699 60 34,089 463,680	116,038 229,583 14,475 1,459,000 29,945 125,000 82,600 278,613 <b>6,815,223</b> 126,500 112,500 112,500 178,500 82,500 28,250 59,000 82,319	37,314 223,963 374 1,546,908 23,245 215,995 65,130 553,413 7,269,375 \$ 140,099 46,795 177,500 5,000 53,892 38,358 -	\$ 87,433 \$ 5,658 \$ 14,794 \$ 301,309 \$ 8,127 \$ (90,296) \$ 17,530 \$ (240,711) 9,528 \$ (13,599) 65,705 1,000 77,500 (25,642) 20,642 82,319	increased overtime for PGV3. Transfer will be done to balance account. Timing of expenses to budget allocation. Will balance by end of year. Unanticipated expensesfor temporary employees related to PG implementation. Transfer will be done to balance account. Timing of expenses to budget allocation. Will balance by end of year. Annual insurance prepaid for the entire year
31 32 33 34 35 36 37 38 39 42 43 44 45 46 47 48 49 50	Salaries & Benefits Current Expenses Rents & Leases Equipment Technology-Software & Hardware Payroll & Other Services Independent Med. Examiners/Consultants Retiree Health Insurance Other Subtotal Internal Non-Invest. Adm External Non-Investment Expenses Actuarial Fees Legal Fees Audit Fees Insurance Expense Local Custodian Other Capital Expense	\$ 232,075 461,000 28,950 2,918,000 59,890 250,000 165,200 557,225 13,632,278 \$ 253,000 225,000 357,000 165,000 165,000 118,000	8,709 38 693 389,217 1,427 699 60 34,089 463,680	116,038 229,583 14,475 1,459,000 29,945 125,000 82,600 278,613 <b>6,815,223</b> 126,500 112,500 112,500 112,500 178,500 82,500 28,250 59,000	37,314 223,963 374 1,546,908 23,245 215,995 65,130 553,413 7,269,375 \$ 140,099 46,795 177,500 5,000 53,892	\$ 87,433 \$ 5,658 \$ 14,794 \$ 301,309 \$ 8,127 \$ (90,296) \$ 17,530 \$ (240,711) 9,528 \$ (13,599) 65,705 1,000 77,500 (25,642) 20,642 82,319	increased overtime for PGV3. Transfer will be done to balance account. Timing of expenses to budget allocation. Will balance by end of year. Unanticipated expensesfor temporary employees related to PG implementation. Transfer will be done to balance account. Timing of expenses to budget allocation. Will balance by end of year.
31 32 33 34 35 36 37 38 39 42 43 44 45 45 45 45 45 50 51	Salaries & Benefits Current Expenses Rents & Leases Equipment Technology-Software & Hardware Payroll & Other Services Independent Med. Examiners/Consultants Retiree Health Insurance Other Subtotal Internal Non-Invest. Adm External Non-Investment Expenses Actuarial Fees Legal Fees Audit Fees Local Custodian Other Capital Expense Depreciation Expense	\$ 253,000 26,918,000 28,950 2,918,000 59,890 250,000 165,200 557,225 13,632,278 \$ 253,000 225,000 357,000 165,000 118,000 164,637 500,000	8,709 38 693 389,217 1,427 699 60 34,089 <b>463,680</b>	116,038 229,583 14,475 1,459,000 29,945 125,000 82,600 278,613 <b>6,815,223</b> 126,500 112,500 178,500 178,500 82,500 82,500 82,319 250,000	37,314 223,963 374 1,546,908 23,245 215,995 65,130 553,413 7,269,375 \$ 140,099 46,795 177,500 5,000 5,000 53,892 38,358 -	\$ 87,433 \$ 5,658 \$ 14,794 \$ 301,309 \$ 8,127 \$ (90,296) \$ 17,530 \$ (240,711) <b>9,528</b> \$ (13,599) 65,705 1,000 77,500 (25,642) 20,642 82,319 (250,000)	increased overtime for PGV3. Transfer will be done to balance account. Timing of expenses to budget allocation. Will balance by end of year. Unanticipated expensesfor temporary employees related to PG implementation. Transfer will be done to balance account. Timing of expenses to budget allocation. Will balance by end of year. Annual insurance prepaid for the entire year Fixed payment compared to 6 months of budget.
31 32 33 34 35 36 37 38 39 42 43 44 45 46 47 48 49 50 51 52	Salaries & Benefits Current Expenses Rents & Leases Equipment Technology-Software & Hardware Payroll & Other Services Independent Med. Examiners/Consultants Retiree Health Insurance Other Subtotal Internal Non-Invest. Adm External Non-Investment Expenses Actuarial Fees Audit Fees Audit Fees Insurance Expense Local Custodian Other Capital Expense Depreciation Expense Subtotal External Non-Invest. Adm	\$ 253,000 357,000 2557,225 13,632,278 \$ 253,000 165,200 \$ 255,000 357,000 165,000 357,000 165,000 118,000 164,637	8,709 38 693 389,217 1,427 699 60 34,089 463,680	116,038 229,583 14,475 1,459,000 29,945 125,000 82,600 278,613 <b>6,815,223</b> 126,500 112,500 112,500 178,500 82,500 28,250 59,000 82,319	37,314 223,963 374 1,546,908 23,245 215,995 65,130 553,413 7,269,375 \$ 140,099 46,795 177,500 5,000 53,892 38,358 -	\$ 87,433 \$ 5,658 \$ 14,794 \$ 301,309 \$ 8,127 \$ (90,296) \$ 17,530 \$ (240,711) 9,528 \$ (13,599) 65,705 1,000 77,500 (25,642) 20,642 82,319	increased overtime for PGV3. Transfer will be done to balance account. Timing of expenses to budget allocation. Will balance by end of year. Unanticipated expensesfor temporary employees related to PG implementation. Transfer will be done to balance account. Timing of expenses to budget allocation. Will balance by end of year. Annual insurance prepaid for the entire year Fixed payment compared to 6 months of budget.
31 32 33 34 35 36 37 38 39 42 43 44 45 46 47 48 49 50 51 52 53	Salaries & Benefits Current Expenses Rents & Leases Equipment Technology-Software & Hardware Payroll & Other Services Independent Med. Examiners/Consultants Retiree Health Insurance Other Subtotal Internal Non-Invest. Adm External Non-Investment Expenses Actuarial Fees Legal Fees Audit Fees Uegal Fees Audit Fees Local Custodian Other Capital Expense Local Custodian Other Subtotal External Non-Invest. Adm	\$ 253,000 26,918,000 28,950 2,918,000 59,890 250,000 165,200 557,225 13,632,278 \$ 253,000 225,000 357,000 165,000 118,000 164,637 500,000	8,709 38 693 389,217 1,427 699 60 34,089 463,680	116,038 229,583 14,475 1,459,000 29,945 125,000 82,600 278,613 <b>6,815,223</b> 126,500 112,500 112,500 112,500 112,500 28,250 28,250 59,000 82,319 250,000	37,314 223,963 374 1,546,908 23,245 215,995 65,130 553,413 7,269,375 \$ 140,099 46,795 177,500 5,000 53,892 38,358 - 500,000 - 961,644	\$ 87,433 \$ 5,658 \$ 14,794 \$ 301,309 \$ 8,127 \$ (90,296) \$ 17,530 \$ (240,711) 9,528 \$ (13,599) 65,705 1,000 77,500 (25,642) 20,642 82,319 (250,000) - (42,075)	increased overtime for PGV3. Transfer will be done to balance account. Timing of expenses to budget allocation. Will balance by end of year. Unanticipated expensesfor temporary employees related to PG implementation. Transfer will be done to balance account. Timing of expenses to budget allocation. Will balance by end of year. Annual insurance prepaid for the entire year Fixed payment compared to 6 months of budget.
31 32 33 34 35 36 37 38 39 42 43 44 45 46 47 48 49 50 51 52	Salaries & Benefits Current Expenses Rents & Leases Equipment Technology-Software & Hardware Payroll & Other Services Independent Med. Examiners/Consultants Retiree Health Insurance Other Subtotal Internal Non-Invest. Adm External Non-Investment Expenses Actuarial Fees Legal Fees Audit Fees Local Custodian Other Capital Expense Local Custodian Other Capital Expense Depreciation Expense Subtotal External Non-Invest. Adm Total Non-Invest. Internal & External	\$ 253,000 357,225 13,632,278 \$ 253,000 165,200 \$ 253,000 165,200 \$ 253,000 225,000 357,000 165,000 56,500 118,000 164,637 500,000 - - - 1,839,137	8,709 38 693 389,217 1,427 699 60 34,089 463,680	116,038 229,583 14,475 1,459,000 29,945 125,000 82,600 278,613 <b>6,815,223</b> 126,500 112,500 112,500 112,500 112,500 28,250 28,250 59,000 82,319 250,000	37,314 223,963 374 1,546,908 23,245 215,995 65,130 553,413 7,269,375 \$ 140,099 46,795 177,500 5,000 5,000 53,892 38,358 -	\$ 87,433 \$ 5,658 \$ 14,794 \$ 301,309 \$ 8,127 \$ (90,296) \$ 17,530 \$ (240,711) 9,528 \$ (13,599) 65,705 1,000 77,500 (25,642) 20,642 82,319 (250,000) - (42,075)	increased overtime for PGV3. Transfer will be done to balance account. Timing of expenses to budget allocation. Will balance by end of year. Unanticipated expensesfor temporary employees related to PG implementation. Transfer will be done to balance account. Timing of expenses to budget allocation. Will balance by end of year. Annual insurance prepaid for the entire year Fixed payment compared to 6 months of budget.
31 32 33 34 35 36 37 38 39 42 43 44 45 46 47 48 49 50 51 52 53 54	Salaries & Benefits Current Expenses Rents & Leases Equipment Technology-Software & Hardware Payroll & Other Services Independent Med. Examiners/Consultants Retiree Health Insurance Other Subtotal Internal Non-Invest. Adm External Non-Investment Expenses Actuarial Fees Legal Fees Audit Fees Local Custodian Other Capital Expense Local Expense Depreciation Expense Subtotal External Non-Invest. Adm Total Non-Invest. Internal & External	\$ 253,000 357,225 13,632,278 \$ 253,000 165,200 \$ 253,000 165,200 \$ 253,000 225,000 357,000 165,000 56,500 118,000 164,637 500,000 - - - 1,839,137	8,709 38 693 389,217 1,427 699 60 34,089 463,680 - - \$ 463,680	116,038 229,583 14,475 1,459,000 29,945 125,000 82,600 278,613 <b>6,815,223</b> 126,500 112,500 178,500 178,500 82,500 82,319 250,000 <b>919,569</b> <b>\$ 7,734,792</b>	37,314 223,963 374 1,546,908 23,245 215,995 65,130 553,413 7,269,375 \$ 140,099 46,795 177,500 5,000 53,892 38,358 - 500,000 - 961,644	\$ 87,433 \$ 5,658 \$ 14,794 \$ 301,309 \$ 8,127 \$ (90,296) \$ 17,530 \$ (240,711) 9,528 \$ (13,599) 65,705 1,000 77,500 (25,642) 20,642 82,319 (250,000) 	increased overtime for PGV3. Transfer will be done to balance account. Timing of expenses to budget allocation. Will balance by end of year. Unanticipated expensesfor temporary employees related to PG implementation. Transfer will be done to balance account. Timing of expenses to budget allocation. Will balance by end of year. Annual insurance prepaid for the entire year Fixed payment compared to 6 months of budget.



To: NHRS Trustees

From: Marie Mullen, Director of Finance

Date: January 28, 2025

Re:	FY 2025 Trust Fund	Budget - Revision	Request
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Item: Action:  $\square$  Discussion:  $\square$  Informational:  $\square$ 

NHRS is requesting a revision to the FY 2025 Investment Budget. An increase of \$4,575,000 is requested to purchase the building located at 80 Commercial Street, Concord, NH and transfer tax expense. All conditions have been satisfied as detailed in the Purchase and Sale Agreement; therefore, we are requesting additional funds to complete the purchase during the first week of March 2025.

We respectfully request approval of the revised budget to finalize the purchase of the property.

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	NI			: NЛ			
	NEW HAMPSHIRE RETIREMENT SYSTEM TRUST FUND BUDGET SUMMARY-Revised February 11, 2025						
		DR FISCAL YEARS					
			2023, 2024 AND 202	2.5			
(1)	(2)	(3)	6	4)	(5)	(6)	(7)
(1)	FY 2023		( 2024	FY 2025	FY 2025	Variance	
				Revised 10/8	Revised 2/11	FY 2025 Approve	-
	ACTUAL	BUDGET	ACTUAL	BUDGET	BUDGET	FY 2025 Revised	
						\$	%
1 Investment Expense/Internal:	\$920,297	\$1,339,670	\$1,079,597	\$2,455,695	\$2,455,695	\$0	0.0%
	+	+1,000,010	+ 1,010,001	+_,,	+_,,	<b></b>	01070
2 Investment Expense/External:	\$30,342,873	\$33,106,000	\$31,119,612	\$36,599,000	\$36,599,000	\$0	0.0%
	<i>\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\</i>	<i>400,100,000</i>	φ <b>0</b> 1,110,012	<i>\\</i> 00,000,000	<i>400,000,000</i>	Ψ0	0.070
3 Non-Investment Expense/Non-Statutory:	\$1,088,368	\$1,194,450	\$892,530	\$1,839,137	\$6,414,137	\$4,575,000	248.8%
o non-investment Expense/Non-Otatutory.	φ1,000,300	ψ1,134,430	<i>φ</i> 092,330	φ1,059,157	φ0,414,137	φ <del>4</del> ,575,000	240.070
4 Subtotal	\$32,351,538	\$35,640,120	\$33,091,739	\$40,893,832	\$45,468,832	\$4,575,000	11.2%
4 Subtotal	\$32,351,530	<b>\$35,040,120</b>	\$33,091,739	<b>\$40,093,032</b>	<b>\$45,400,032</b>	\$4,575,000	11.270
5 Statutory Administrative Budget	\$11,657,746	\$13,003,442	\$13,712,549	\$13,632,278 <sup>1</sup>	\$13,632,278	\$0	0.0%
6 Standard NHRS Operations	\$9,500,347	\$10,619,842	\$10,877,159	\$11,214,078	\$11,214,078	\$0	0.0%
7 Pension Gold Version 3 upgrade	\$2,157,399	\$2,383,600	\$2,835,390	\$2,418,200	\$2,418,200	\$0	0.0%
8 Total Proposed NHRS Trust Fund:	\$44,009,284	\$48,643,562	\$46,804,288	\$54,526,110	\$59,101,110	\$4,575,000	8.4%
•							
<sup>1</sup> FY 2024 Actual includes FY 2023 carry-forward funds relate	d to purchase commit	ments for equipment ar	nd PGV3.				

$\langle$		New Hampshire Retirement System
	То:	Board of Trustees
	From:	Rosamond Cain, Director of Human Resources
	Date:	January 30, 2025
	Re:	HR Operating Report
	Item:	Action: $\Box$ Discussion: $\Box$ Informational: $\boxtimes$

### **Significant Developments and Priority Issues**

- NHRS has filled the Project Manager and Business Analyst positions. We are recruiting for a Director of Communications and Legislative Affairs, Head of Private Markets and a Member Benefits Certifier.
- The NHRS Communications Taskforce presented at the January All Staff meeting and is providing multiple ways for staff to communicate and ask questions.
- The all-position salary survey project has moved into data crunching phase. We have received the results and are comparing them to our current wage schedule.

### **Current Months' Highlights – December and January**

- HR met all four KPMs for the past two months.
- HR continues to work with the ETeam on staffing numbers, positions and job descriptions for FYs 25-27.
- 2024 Total Compensation Statements will be delivered in February this year.
- The training manual project has kicked off.

### Upcoming Plans & Projects

• All position descriptions will need to be updated to reflect changes due to PGV3. This project is expected to begin later in FY 25.

# FYs 25-27 Human Resources Strategic Plan Summary

ACTION	PRIME MOVER(S)	TARGET DATE	STATUS/COMMENTS	ALIGNMENT WITH NHRS STRATEGIC PLAN
1. Plan, schedule, and present two trainings for our staff annual training plan.	RC/JG/ETeam/ MTeam	6/30/25	First of two trainings completed 10/24.	Goal 4.
2. Maintain a management development program for middle managers and staff identified as possible managers.	RC/JG/ETeam/ MTeam	6/30/25	Ongoing.	Goal 2.
3. Assist in monitoring and maintaining staffing levels in all departments to keep organization on time and budget.	RC/ETeam/ MTeam	6/30/25	Ongoing.	Goals 2 & 4.
4. Create, implement, and maintain electronic performance appraisals utilizing the ADP software.	RC/MTeam	6/30/25	Ongoing.	Goal 2.
5. Create plan for $7/1/25$ CBA.	RC/ETeam	1/1/25	Ongoing.	Goal 4.
6. Begin a review of the organization structure and implement appropriate changes if warranted.	RC/TC/JG	12/31/26	FY 26 AP Item.	Goal 2.
7. Begin review of all training manuals to reflect PGV3.	RC/MTeam/ Staff	1/31/25	Ongoing.	Goal 4.



8. Begin review of all position	RC/MTeam/	1/31/25	Ongoing.	Goal 4.
descriptions to reflect PGV3.	Staff			
9. Complete a full salary survey of all NHRS positions.	RC	1/1/25	Current.	Goal 2.
		10/01/07		0.14
10. Implement a formal cross	RC/ETeam/	12/31/27	Not started.	Goal 4.
training program aligned with	MTeam			
succession planning.				
11. Ensure compliance with all	RC/Legal/	6/30/25	Current.	-
federal, state and CBA rules	J. Goodridge			
and regulations.				
12. HR Tech. to identify and enroll	J. Goodridge/	12/31/24	Complete.	-
in a professional development	RC			
program.				
13. HR Mgr. to identify, enroll in,	RC/JG	12/31/24	Complete.	_
and complete a professional	,		-	
development program.				
14. Create, implement, and	J. Goodridge/	4/30/25	J. Goodridge to create AP	_
maintain electronic	RC		for this goal.	
onboarding utilizing the ADP				
software.*				

\* - This goal will have a more detailed action plan associated with it, listing more granular actions and target dates.

**Variables:** Legislative changes, personnel changes/turnover, technology changes.



$\langle$		New Hampshire Retirement System	
	To:	Board of Trustees	
	From:	Tim Crutchfield, Deputy Director and Chief Legal Counsel	
	Date:	January 30, 2025	
	Re:	Legal Team Operating Report	
	Item:	Action: $\Box$ Discussion: $\Box$ Informational: $\boxtimes$	

### **Significant Developments and Priority Issues**

- Staff has finalized agreements for Investment Counsel and Securities Litigation Counsel following the Board's approval in December.
- Staff expects to present an RFP for NH Legal Counsel to the Governance Committee and the Board in February.
- Earlier this month, an appeal was filed with the NH Supreme Court in the Matter of Scott Marshall regarding the Board's December 2024 reconsideration decision that Mr. Marshall was properly classified as a Group II Tier B member. The Court has not issued a decision to accept the appeal as of the date of this memo.

### **Current Months' Highlights – December and January**

- Over the past 12 months, the Employer Audit Team has completed 46 standard audits and all 23 GASB audits for 2024. There are 23 standard audits in process.
- Legal achieved six of seven KPMs in December and five of seven in January. One of the KPMs pertained to the 12-month rolling average of completed employer audits was missed in both December and January; one KPM missed in January was because Legal provided a disability recommendation late to the Benefits Committee. Staff is reviewing processes to ensure the timely completion of employer audits.
- 439 Gainful Occupation reports were mailed in early March. 433 have been returned and 428 of those have been processed.
- Legal staff continues to work with other functional teams, as well as the Dept. of Safety, in the implementation of the violent accidental disability benefit.
- Staff continues to work with Groom Law to contest an IRS penalty for an alleged failure to file a required report.

### **Upcoming Plans & Projects**

- Legal staff continues to work with IT and LRS to enhance the employer audit process in PGV3.
- Gainful Occupation Letters for 2024 income will be sent in early March.

Our Mission: To provide secure retirement benefits and superior service.

# **Administrative Appeals**

Prior 12 months	Total Cases on Appeal at start of the month	New Appeals	Closed Appeals	Total Cases on Appeal end of the month
Dec. '24	7	1	1	7
Nov. '24	7	2	2	7
Oct. '24	8	0	1	7
Sept. '24	7	1	0	8
Aug. '24	9	0	2	7
July '24	11	0	2	9
June '24	13	0	2	11
May '24	12	1	0	13
April '24	8	4	0	12
Mar. '24	8	0	0	8
Feb.'24	9	0	1	8
Jan. '24	9	1	1	9
Totals		10	12	

# **Disability Appeals**

Prior 12 months	Total Cases on Appeal at start of the month	New Appeals	Closed Appeals	Total Cases on Appeal end of the month
Dec. '24	1	0	0	1
Nov. '24	1	0	0	1
Oct. '24	1	0	0	1
Sept. '24	1	0	0	1
Aug. '24	1	0	0	1
July '24	1	0	0	1
June '24	1	0	0	1
May '24	1	0	0	1
April '24	1	0	0	1
Mar. '24	2	0	1	1
Feb. '24	2	0	0	2
Jan. '24	2	0	0	2
Totals		0	1	

Our Mission: To provide secure retirement benefits and superior service.

Date: 1/30/25 Approved: 5/28/24

# FYs 25-27 Legal Strategic Plan Summary

ACTION	PRIME MOVER(S)	TARGET DATE	STATUS/COMMENTS	ALIGNMENT WITH NHRS STRATEGIC PLAN
1. Assist in the PGV3 implementation and long- term enhancements.	TC	6/30/25	Ongoing.	Goal 1.
2. Conduct and document annual review of NHRS legal and governance policies, procedures, and manuals to assure best practices.	TC/ M. Cavanaugh	12/31/24	Ongoing; the annual updates to the Governance Manual will be presented at the Feb. '25 Board meeting.	_
3. Update the annual compliance calendar to enhance timely compliance in all organizational areas.	TC	12/31/24	Completed.	-
4. Ensure annual compliance with the Voluntary Correction Program Policy.	TC/ M. Cavanaugh	3/31/25		-
5. Assure legal compliance with all legislative proposals adopted and effective in 2024.	TC	6/30/25	In process.	-
6. Review NHRS website for legal compliance with updates as needed.	TC/TBD/ M. Cavanaugh	6/30/25	Ongoing.	-
7. Identify, enroll, and complete a professional development program.	TC/ M. Cavanaugh/ D. Crichton	6/30/25		-



8. Begin reviewing the	JG/RC/TC	12/31/26		Goal 2.
organization structure to				
better align with the system's				
vital functions.				
9. Evaluate and develop PGV3 capabilities for employer	M. Cavanaugh	6/30/25	In process.	Goal 1.
audits.				

**Variables:** Legislative changes, personnel changes/turnover, technology changes.



# **CONSENT AGENDA**

No Administrative Appeals

# **Trustee Travel**

No Travel Requests Submitted



To:	NHRS Board of Tr	ustees			
From:	Jan Goodwin, Executive Director				
Date:	January 30, 2025				
Re:	December 10, 2024 - Action Items				
Item:	Action:	Discussion: 🗌	Informational: 🔀		

1.	Obtain the unmodified opinion letter from Plante Moran. Action: Completed.	MM
2.	Distribute the ACFR and CAIR per statute. Action: Completed.	PIO staff
3.	Present the annual Governance Manual revisions to the Board in February. <b>Action: On the February Board agenda.</b>	МС
4.	Finalize the Investment Counsel agreements. Action: Completed.	МС
5.	Issue the actuarial audit RFP. Action: Completed.	PIO
6.	Begin implementation of the SAA ranges and revised benchmarks. <b>Action: Implementation begun.</b>	RL
7.	Implement the Gainful Occupation offsets. Action: Implementation begun.	MC
8.	Continue space options due diligence. Action: Completed.	JG
9.	Finalize the Linea Solutions and Wilbanks agreements. <b>Action: Completed.</b>	JL/RC
10	). Complete Board and IIC RSA 15-A filings. Action: Completed.	TC
1	1. Implement the Board decisions on the Consent Agenda. Action: Completed. Our Mission: To provide secure retirement benefits and superior service.	DC/MP

# **BOARD CHECKPOINT DISCUSSION**

Oral Presentation Only



TO: Senator Howard Pearl, Chair, Senate Executive Departments & Administration Committee Representative Carol McGuire, Chair, House Executive Departments & Administration Committee

FROM: New Hampshire Retirement System Board of Trustees (Prepared by Jan Goodwin, Executive Director)

RE: Quarterly Report to the General Court – January 1, 2025

Dear Senator Pearl and Representative McGuire:

Pursuant to RSA 100-A:14, VII-a, the Board of Trustees of the New Hampshire Retirement System (NHRS, the retirement system) is submitting this quarterly report to the General Court.

Here is a summary of NHRS activities during the quarter ending December 31, 2024:

- For the Fiscal Year (FY) that ended June 30, 2024, NHRS realized an 8.8% return on investments. The threeyear, five-year, 10-year, and 25-year returns for the periods ended June 30, 2024, were 3.4%, 7.7%, 7.0%, and 6.3%, respectively. All returns are net of fees. The retirement system's assumed rate of investment return is 6.75%.
- The June 30, 2024 NHRS funded ratio the actuarial value of assets divided by the projected value of future benefits is 68.6%, up from 67.5% as of June 30, 2023. The retirement system's audited net position held in trust was \$12.3 billion, an increase of \$831 million from the prior fiscal year, which stood at \$11.5 billion.
- 11 LSRs related to the retirement system have been introduced, 9 in the House and 2 in the Senate.
- Trustees in December voted to accept the Annual Comprehensive Financial Report (ACFR) and Comprehensive Annual Investment Report (CAIR) for the fiscal year ended June 30, 2024.
- NHRS was recognized by the Government Finance Officers Association for excellence in financial reporting for its 2023 ACFR.

In addition to this cover letter, the report contains:

- An executive summary of NHRS Board activity from October and December.
- Minutes of the October 8, 2024, Board meeting and draft minutes of the December 10, 2024, Board meeting.
- Final FY 2024 investment performance information.
- Quarterly Total Fund investment information through September 30, 2024, which is the most recent data available.
- Monthly investment information on marketable assets through November 30, 2024, which is the most recent data available.
- Quarterly Investment Compliance Notice provided to the Legislative Budget Assistant.
- A list of 2025 LSRs related to the retirement system is attached.

If you have any questions or would like additional information, please do not hesitate to contact me.

Respectfully,

yodu

Jan Goodwin Executive Director

cc: Office of Governor Kelly Ayotte

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# Executive Summary of New Hampshire Retirement System (NHRS) Board of Trustees Meetings

### October 8, 2024, to December 10, 2024

At the October 8, 2024, regular bi-monthly meeting of the NHRS Board of Trustees, the Board met in non-public session for a discussion of potential office space options. The retirement system must decide by early 2025 whether to renew its current lease for another five-year term; staff and an ad hoc Board committee are conducting due diligence.

Following the completion of a request for proposals (RFP) process, the Board voted to accept the recommendation of the Benefits Committee to increase the number of individual physicians performing independent medical examinations (IME) and to engage with two companies for the first time.

At the December 10, 2024, regular bi-monthly meeting, the Board took several actions on the recommendation of the Audit Committee including approving the Annual Ethics Survey; approving the Annual Comprehensive Financial report; and authorizing staff to conduct an RFP for an actuarial audit. The Board also approved the selection of four outside law firms for investment and securities litigation matters following a robust RFP process; adopted revised Strategic Asset Allocation Ranges & Asset Class Benchmarks; and, approved the Annual Gainful Occupation Report.

Additional details regarding actions and discussions of the NHRS Board of Trustees may be found in the archive of meeting minutes posted on <u>www.nhrs.org</u>. The direct link to this page is:

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https://www.nhrs.org/about-nhrs/board-of-trustees/meeting-minutes

### CY 2025 BOARD ACTION CALENDAR

### JANUARY 2025 – No Meeting

### FEBRUARY

Date	Board Action Item	Requirement	<b>Responsible Party</b>
2/11/25	Board and Audit Committee approval of FY24 GASB 68/75 Reports	Best Practice	Board of Trustees
2/11/25	Annual Governance Manual revisions	Best Practice	Board of Trustees
2/11/25	Presentation of Capital Markets Assumptions	Best Practice	Investments
2/11/25	Quarterly IIC Report (Incl Inv. Fees and Sole Interest Statement)	RSA 100-A:15, II-a(c)	IIC
2/11/25	Trustee Education	Best Practice	ED
2/11/25	BCP Testing Report	Best Practice	ED
2/11/25	Initiate Review of Strategic Plan - PAA	Best Practice	Board of Trustees
2/11/25	Confirm quarterly report to chairpersons of House & Senate ED&A Committees describing recent Board actions including any changes to actuarial assumptions and investment returns and Sole Interest Statement were submitted.	RSA 100-A:14, VII-a & RSA 100-A:15, II- a(c) & VIII(b)	ED

### MARCH – No Meeting

### APRIL

Date	Board Action Item	Requirement	<b>Responsible Party</b>
4/8/25	Confirm quarterly report to chairpersons of House & Senate ED&A Committees describing recent Board actions including any changes to actuarial assumptions and investment returns and Sole Interest Statement were submitted.	RSA 100-A:14, VII-a & RSA 100-A:15, II-a(c) & VIII(b)	ED
4/8/25	Approve the Strategic Plan	Best Practice	Board of Trustees
4/8/25	Annual VCP Review	Best Practice	Legal/Board of Trustees

### MAY – No Meeting

### JUNE

Date	Board Action Item	Requirement	<b>Responsible Party</b>
6/10/25	Review and Approve annual Trust Fund Budget (non-statutory portion)	Best Practice	Board of Trustees
6/10/25			
6/10/25	Quarterly IIC Report (Incl Inv. Fees)	RSA 100-A:15, II-a(c)	IIC

# JULY - No Meeting

### AUGUST

Date	Board Action Items	Requirement	<b>Responsible Party</b>
8/12/25	Annual IIC Real Estate update to the Board	Best Practice	IIC
8/12/25		RSA 100-A:14, XIII	Board of Trustees
8/12/25		RSA 100-A:14, X	Board of Trustees
8/12/25	Office of Foreign Asset Control (OFAC) Compliance Report	Best Practice	Board of Trustees
8/12/25	Working After Retirement Report	Best Practice	Board of Trustees
	Confirm quarterly report to chairpersons of House & Senate ED&A Committees	RSA 100-A:14, VII-	
	describing recent Board actions including any changes to actuarial assumptions and	a & RSA 100-A:15,	ED
8/12/25	investment returns and Sole Interest Statement were submitted.	II-a(c) & VIII(b)	

# **SEPTEMBER – No Meeting**

# OCTOBER

Date	Board Action Items	Requirement	<b>Responsible Party</b>
	Confirm quarterly report to chairpersons of House & Senate ED&A Committees	RSA 100-A:14, VII-a &	
	describing recent Board actions including any changes to actuarial assumptions and	RSA 100-A:15, II-a(c) &	ED
10/14/25	investment returns and Sole Interest Statement were submitted.	VIII(b)	
10/14/25	Gainful Occupation Report	RSA 100-A:6, III(b)	Board of Trustees
10/14/25	Review charters for Board Committees	Governance Manual	Appropriate Board Committee
10/14/25	Annual Board Fiduciary Education	Best Practice	Board of Trustees
10/14/25	Annual Independent Medical Examiner (IME) Review	IME Policy	Board of Trustees
10/14/25	Set Board of Trustees meeting schedule for next calendar year	Governance Manual	Board of Trustees
10/14/25		RSA 100-A:15, II-a(c) &	IIC
	Quarterly IIC Report (Incl Inv. Fees)	VIII(b)	iic
10/14/25	Call Firefighter Report	Best Practice	Board of Trustees

# **NOVEMBER** – No Meeting

### DECEMBER

Date	Board Action Items	Requirement	<b>Responsible Party</b>
12/9/25	Audited ACFR to Audit Committee and Board for approval	RSA 100-A:15, VI(a)	External Auditor
12/9/25	Audit Committee recommends that the Board approve the audited ACFR	RSA 100-A:15, VI(a)	Board of Trustees
12/9/25	RSA 15-A Statement of Financial Interests Reminder – due 3 <sup>rd</sup> Fri. in Jan	RSA 15-A	Board of Trustees
12/9/25	The IIC recommends that the Board approve the CAIR	RSA 100-A:15, VII	Board of Trustees
12/9/25	Present annual ethics survey results	Ret. 401	Legal
12/9/25	Quarterly IIC Report (Incl Inv. Fees)	RSA 100-A:15, II-a(c) & VIII(b)	IIC
12/9/25	Deadline for issuing member statements for fiscal year ending 6/30/25	RSA 100-A:14, XI	Board of Trustees
12/9/25	ACFR and CAIR delivered per statute	RSA 100-A:15, VI(c)	PIO

# NHRS Board of Trustees Committee Membership List as of January 31, 2025

Committee	Audit	Benefits	Governance	Legislative	PPCC	Investment
Staff Liaison	Heather	Timothy	Timothy	Interim:	Rosamond	Raynald
	Hoffacker	Crutchfield/	Crutchfield	Diana	Cain	Leveque
		Nancy Miller		Crichton		
Frederick, Jon		X-Ch	Х	Х		
Hannan, Sue				Х	X-Ch	
Henry, Jason	Х	Х				
Kelliher, Maureen	Х				Х	Х
VACANT						
Maloney, Robert			Х		Х	
Martineau, Andrew		Х		Х		
VACANT						
Merrifield, Ken				X-Ch	Х	
Mezzapelle, Monica	X-Ch		Х			
Provost, Paul			Х			Х
Quigley, Joshua				Х	Х	
Roy, Donald		Х	X-Ch			
TOTAL MEMBERS	3/5	4/5	5/5	5/5	5/5	2/6*

\*Per RSA 100-A:14-b, I, the Independent Investment Committee shall consist of not more than 6 members, and up to 2 of whom shall be Trustees.

### New Hampshire Retirement System Board of Trustees As of November 22, 2024

Jon Frederick, Jaffrey September 21, 2022, to September 5, 2025 NH Municipal Association

Sue Ellen Hannan, Derry July 27, 2018, to July 1, 2021 NH Education Association

Jason M. Henry, Brentwood May 17, 2023, to July 13, 2025 NH Association of Counties

Maureen Kelliher, Dover June 18, 2014, to July 13, 2025 Non-member Trustee

Robert Maloney, Holderness July 27, 2018, to July 13, 2024 Non-member Trustee

Andrew Martineau, Bow December 18, 2020, to July 1, 2024 NH State Permanent Firemen's Association

Kenneth Merrifield, Franklin March 24, 2021, to July 13, 2025 NH State Employer

Monica Mezzapelle, Concord January 6, 2021, to January 7, 2025 State Treasurer

Paul Provost, Concord November 2, 2022, to November 2, 2025 Non-member Trustee

Joshua Quigley, Bedford October 19, 2022, to July 1, 2024 NH Police Association

Donald M. Roy, Jr., North Hampton July 13, 2011, to July 13, 2025 NH School Boards Association

Vacant - Non-member Trustee

Vacant - State Employees' Association

Sponsor	Program	Description
(IFEBP) Int'l Foundation of Employee Benefit Plans <u>www.ifebp.org</u>	New Trustees Institute Level I: Core Concepts June 23 – 25, 2025 Nashville, TN	<ul> <li>Ideal for new Trustees to learn fiduciary responsibilities, and the technical aspects of serving as a Trustee.</li> <li>Topics include Trustee responsibility and legal environment, retirement plans, investing health and welfare pension assets, and governance.</li> </ul>
	<b>Trustees Institute Level II: Concepts in Practice</b> June 21 – 22, 2025 Nashville, TN	<ul> <li>Ideal for plan professionals, and for Trustees who've served 3 to 5 years and completed Level I: Core Concepts.</li> <li>Learn from industry experts on current events and reform</li> </ul>
		<ul> <li>initiatives.</li> <li>Network with peers facing similar challenges – share best practices, ideas, and solutions.</li> <li>Gain insight and garner resource materials to share with colleagues.</li> </ul>
	Advanced Trustees & Administrators Institute June 23 – 25, 2025 Nashville, TN	<ul> <li>Ideal for Trustees and plan administrators who've served two or more years. Seek to network and learn about the latest industry issues/trends, attend sessions that cover such topics as emerging benefit trends, legal and regulatory update, crisis management, artificial intelligence (AI), and cybersecurity.</li> </ul>
(CII) Council of Institutional Investors <u>www.cii.org</u>	CII Spring Conference & 40th Anniversary Celebration March 10 – 12, 2025 Washington, D.C.	<ul> <li>Interact and share best practices with Corporate Governance Professionals, other investors, legislators, and regulators – make global contacts.</li> </ul>

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Sponsor	Program	Description
(NCPERS) National Conference on Public Employee Retirement	<b>2025 NCPERS Trustee Educational</b> <b>Seminar (TEDS)*</b> May 17 – 18, 2025 Denver, CO	<ul> <li>Gain comprehensive insights into Trustee responsibilities, investment strategies, and pension management.</li> </ul>
Systems <u>www.ncpers.org</u>		<ul> <li>Engage in interactive sessions covering plan governance, investment roles, actuarial valuations, funding policies, fiduciary duties, and asset allocation challenges.</li> </ul>
	2024 NCPERS Accredited Fiduciary (NAF)** NAF Modules 1 & 2 May 17 – 18, 2025	• For Trustees with at least five years of experience. Trustee Education Seminar (TEDS) is a pre-requisite.
	Denver, CO	<ul> <li>Earn continuing education credits.</li> </ul>
	<b>NAF Modules 3 &amp; 4</b> May 17 – 18, 2025 Denver, CO	<ul> <li>Strengthen knowledge of pensions and governance.</li> </ul>
	*Runs concurrently with the Annual Conference & Exhibition (ACE). **Trustees who wish to earn their NCPERS Accredited Fiduciary (NAF) accreditation take TEDS first.	<ul> <li>Topics include investing principles, understanding actuarial science, board policies and fundamental concepts.</li> </ul>
	<b>2025 Annual Conference &amp; Exhibition</b> (ACE) May 18 – 21, 2025 Denver, CO	<ul> <li>Good for new and experienced Trustees, administrators, public pension plan members, staff, local officials, and financial and union officers.</li> <li>The new Trustees session occurs immediately before the conference.</li> </ul>
(NASRA) National Association of State Retirement Administrators <u>www.nasra.org</u>	NASRA Winter Meeting March 1 – 3, 2025 Washington, D.C.	<ul> <li>Retirement system directors and staff gather for Sunday afternoon roundtable discussions and presentations, followed by a day of analysis, forecasts, and overviews on current federal legislative and regulatory activities for all NASRA members.</li> </ul>

# NHRS Abbreviations and Acronyms

### **BENEFITS**

ADR	= Accidental Disability Retirement (job-related)
AFC	= Average Final Compensation
СОВ	= Compensation over base pay
COLAs	= Cost of Living Adjustments
EDD	= Electronic Direct Deposit
ESDP	= Extra or Special Duty Pay
GI/GII	= Group I (Employee, Teacher) / Group II (Police, Fire)
GO	= Gainful Occupation
IME	= Independent Medical Examiner/Examination
ODR	= Ordinary Disability Retirement (non-job-related)
QDRO	= Qualified Domestic Relations Order
Tier A	= Members vested prior to 1/1/12
Tier B	= Members in service prior to $7/1/11$ but not vested prior to $1/1/12$
Tier C	= Members hired on or after 7/1/11
TPS	= Treating Physician's Statement
TSA	= Temporary Supplemental Allowance (a one-time retiree payment)

# **BUSINESS OPERATIONS/VENDORS**

APs	= Action Plans
DRAPP	= Data Risk Assessment Project Plan
GRS	= Gabriel, Roeder, Smith & Co (NHRS actuary)
KPMs	= Key Performance Measures
LRS	= Levi, Ray and Shoup, Inc. (PensionGold vendor)

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PM	= Plante Moran (NHRS external auditor)
PPM	<ul> <li>Policy and Procedure Manager (database software system for NHRS policies/procedures)</li> </ul>
PIP	= Process Improvement Program

### **GENERAL**

ACFR	= Annual Comprehensive Financial Report
AU	= Audit
ВОТ	= Board of Trustees
CAIR	= Comprehensive Annual Investment Report
EE	= Employee
ER	= Employer
FA	= Facilities
HB 2	= House Bill 2 (2011 version, which made major changes to NHRS benefits)
IIC	= Independent Investment Committee
JLMC	= Joint Loss Management Committee (a.k.a. Safety Committee)
MS	= Member Services
NHRS	= New Hampshire Retirement System
OPEB	= Other Post-Employment Benefits (i.e. Medical Subsidy)
PIO	= Public Information Office(r)
РРСС	= Personnel, Performance and Compensation Committee
P. Sub (or "subs")	= Political Subdivision (i.e. any NHRS employer other than the state)
RTK	= Right to Know request
SAU	= School Administrative Unit
SD	= School District
UAAL	= Unfunded Actuarial Accrued Liability

<u>IT</u>	
CO-LO	= Co-location site for backup servers
DRS	= NHRS Data Reporting System (employer portal)
PG	= Pension Gold (current pension application from LRS)
PGV3	= Pension Gold Version 3 project

# **LEGISLATIVE**

ED&A	= House (or Senate) Executive Departments and Administration Committee
НВ	= House Bill
ITL	= Inexpedient to Legislate
JLCAR	= Joint Legislative Committee on Administrative Rules
LOB	= Legislative Office Building
LSR	= Legislative Services Request (a request to draft a bill)
ОТР	= Ought to Pass
SB	= Senate Bill
SH	= State House
VV	= Voice Vote

### <u>OTHER</u>

BCCRR	= Boston College Center for Retirement Research
СОВ	= Close of Business
EOB	= End of Business
GASB	= Governmental Accounting Standards Board
G&C	= Governor & Executive Council
JRP	= Judicial Retirement Plan (not affiliated with NHRS)

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NASRA	= National Association of State Retirement Administrators
NCPERS	= National Council on Public Employee Retirement Systems
NCTR	= National Council on Teachers Retirement
NIRS	= National Institute for Retirement Security