



NHRS

New Hampshire Retirement System

**Independent Investment Committee's
Quarterly Report to the Board
April 11, 2023**



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 20.0% of total assets. The fixed income allocation was below the policy range by 1.2%, balanced by a 1.2% allocation to cash equivalent instruments. Opportunities to rebalance the fixed income allocation back within the Investment Policy parameters should continue to be explored. The international equity component of the Fund is in the process of being rebalanced and is at the lower threshold of the approved allocation range. The Fund had an overweight to domestic equity, real estate and alternatives, and underweight positions within non-U.S. equity and fixed income

Investment Performance

- The Fund had a gross return of 5.20% over the second quarter of Fiscal Year 2023, underperforming the market benchmark by 0.15% and ranking in the 62nd percentile of its peers. On a net-of-fees basis, the Fund returned 5.03%
 - The U.S. Equity and Fixed Income portfolios had positive impacts on relative performance
 - By contrast, the Alternative Assets, Non-U.S. Equity, and Real Estate portfolio detracted from 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 17% of peers in the trailing 10-year period, and in the top 36% 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 within the top 25% of peers

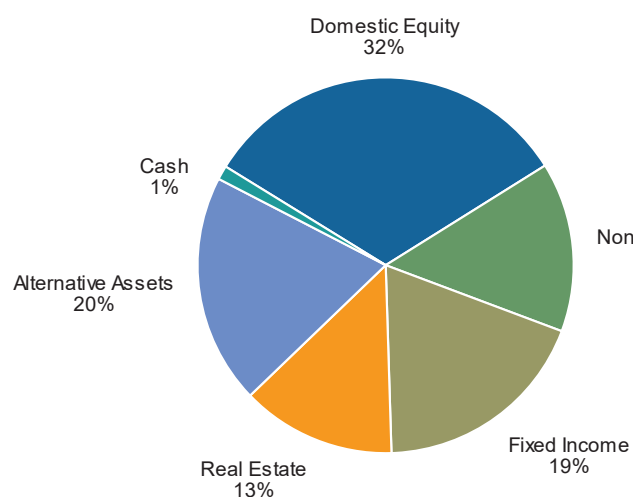
Other Developments

- NHRS Staff and Callan will work closely together to evaluate the Fund's strategic asset allocation and overall portfolio structure in 2023

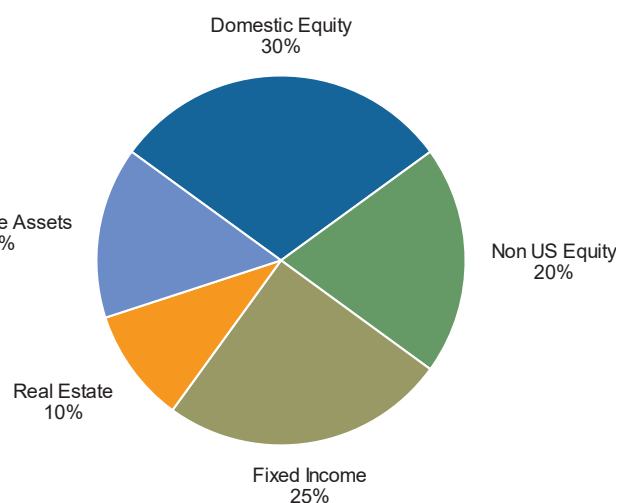
Total Fund

Actual Asset Allocation vs. Target, as of December 31, 2022

Actual Asset Allocation



Target Asset Allocation



Asset Class	\$Millions Actual	Weight Actual	Target	Percent Difference	\$Millions Difference
Domestic Equity	3,464	32.3%	30.0%	2.3%	248
Non US Equity	1,567	14.6%	20.0%	(5.4%)	(577)
Fixed Income	2,018	18.8%	25.0%	(6.2%)	(662)
Real Estate	1,423	13.3%	10.0%	3.3%	350
Alternative Assets	2,125	19.8%	15.0%	4.8%	517
Cash	124	1.2%	0.0%	1.2%	124
Total	10,721	100.0%	100.0%		

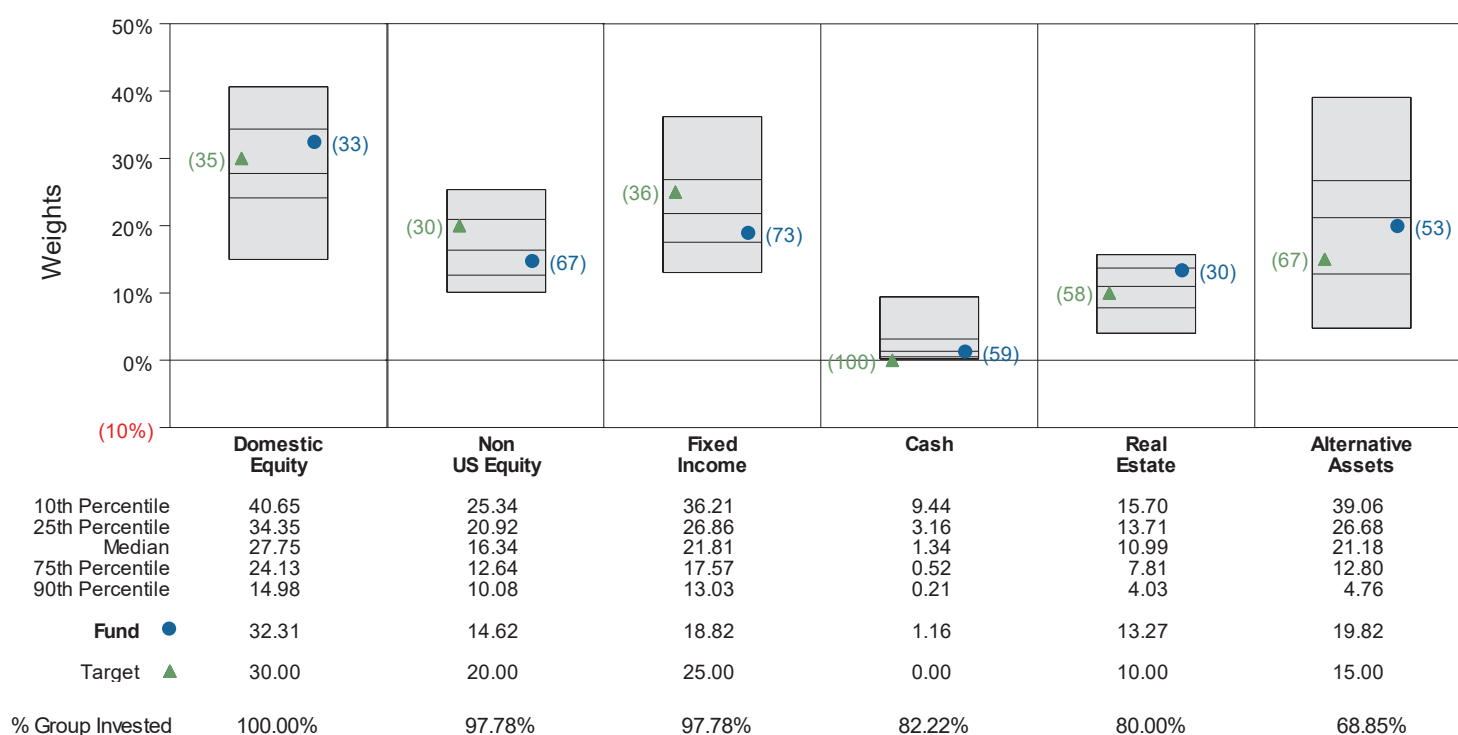
*Current Quarter Target = 30% Russell 3000 Index, 25% Bloomberg Universal, 20% MSCI ACWI ex US, 10% NCREIF NFI-ODCE Val Wt Net lagged 3 months, 10% Russell 3000 Index lagged 3 months+2.0%, 2.5% Bloomberg HY Corp lagged 3 months+1.0%, and 2.5% S&P/LSTA Lev Loan 100 lagged 3 months+1.0%.

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

Total Fund

Actual Asset Allocation vs. Large Public DB Plan (>\$1B) Peer Group, as of December 31, 2022

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



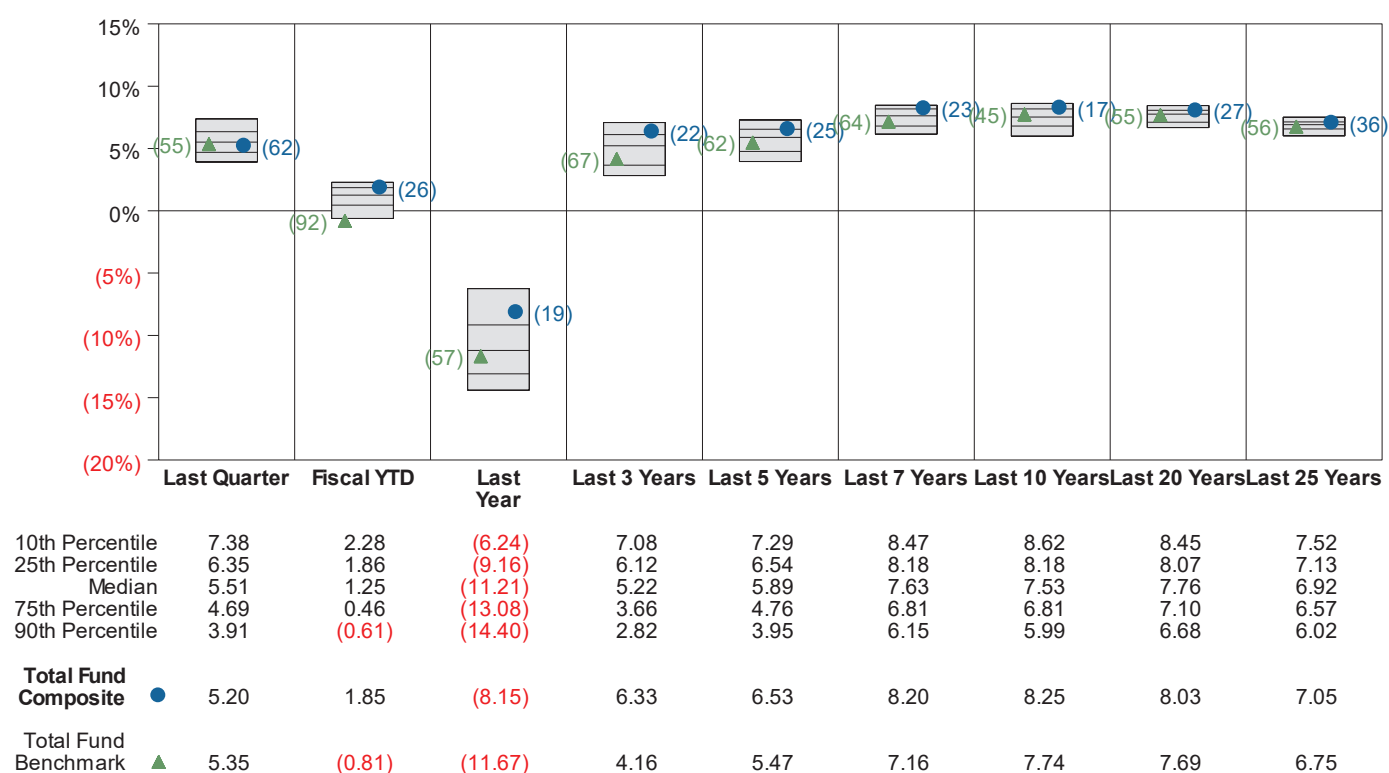
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Callan

Total Fund Performance – Gross of Investment Management Fees

Performance vs. Large Public DB Plan (>\$1B) Peers, as of December 31, 2022

Performance vs Callan Public Fund Large DB (Gross)



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

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Callan

INVESTMENT EXPENSES BY ASSET CLASS

Investment activity fees and other related expenses:
For the Quarter and Fiscal Year to Date through 12/31/22 (in thousands)

	Assets Under Management	Fees (Quarter)	Fees (FYTD)
Equity Investments			
Domestic (U.S.)	3,463,844	2,410	4,865
Non-U.S.	1,567,035	1,774	4,281
Fixed Income Investments	2,017,993	1,433	2,889
Alternative Investments	2,125,056		
Gross		3,926	7,811
Real Estate Investments	1,422,541		
Gross		2,843	6,177
Cash	124,326		
Subtotal Gross Investment Mgt Fees		12,385	26,023
Custodial Fees		137	284
Brokerage Fees		329	611
Investment Advisor Fees		163	325
Investment Professional Fees		9	100
Investment Staff Administrative Expense		216	457
Subtotal Investment Servicing Fees		854	1,776
TOTAL GROSS INVESTMENT EXPENSES	10,720,796	13,239	27,799

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.