



NHRS

New Hampshire Retirement System

**Independent Investment Committee's
Quarterly Report to the Board
November 8, 2022**



NHRS

New Hampshire Retirement System

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 20.5% of total assets. The fixed income allocation was below the policy range by 0.8%, balanced by a 1.3% allocation to cash equivalent instruments. Opportunities to rebalance the fixed income allocation back within the Investment Policy parameters should continue to be explored. Ideally, cash flows should be used to rebalance the portfolio in the most cost efficient manner, though caution should be exercised given current market conditions. The Fund had an overweight to domestic equity, real estate and alternatives, and underweight positions within non-U.S. equity and fixed income
- Callan provided an asset allocation and portfolio structure update to the IIC during the second half of Fiscal Year 2022. After careful analysis and evaluation, no changes were made to the Fund's strategic asset allocation or portfolio structure

Investment Performance

- The Fund had a gross return of -6.94% over the last quarter of Fiscal Year 2022, outperforming the market benchmark by 3.51% and ranking in the 23rd percentile of its peers. On a net-of-fees basis, the Fund returned -7.17%
 - The Alternative Assets, Real Estate, and Non-U.S. Equity portfolios had the largest positive impact on relative performance
 - By contrast, the Fixed Income portfolio detracted from performance in a period of rising yields and credit spread widening. However, this has been one of the strongest-performing asset classes in the portfolio over the long-term
- The Fund outperformed its market benchmark by a comfortable margin in Fiscal Year 2022, ranking in the 34th percentile of its peer group
- 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 18% of peers in the trailing 10-year period, and in the top 39% 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 35% of peers

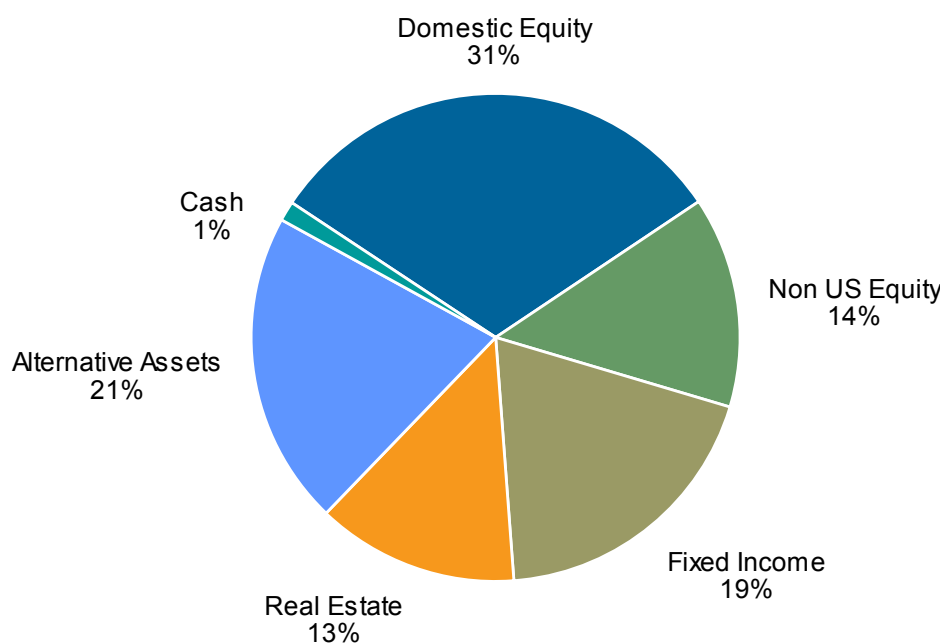
Other Developments

- We are closely monitoring two of the public equity managers in the Fund due to organizational changes and performance concerns. We will provide the IIC with more detail at the next meeting

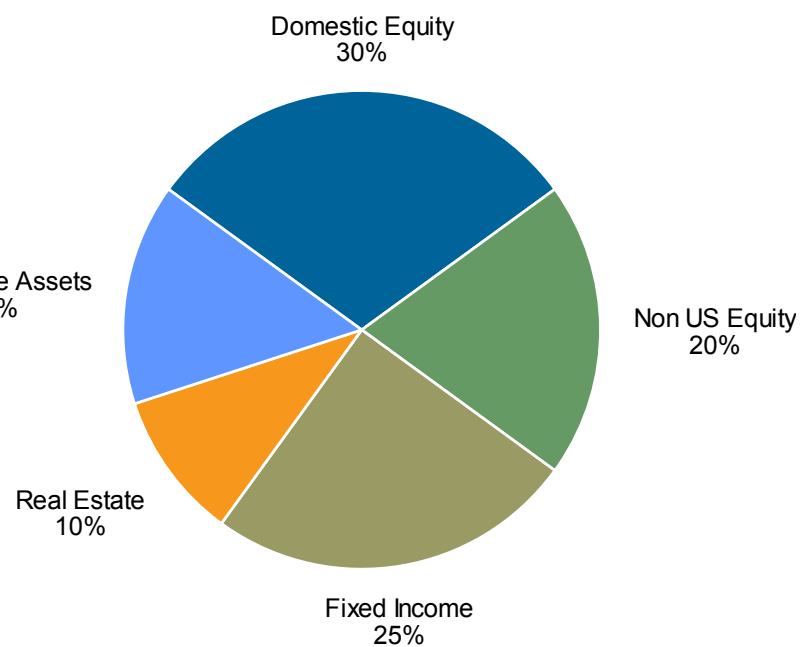
Total Fund

Actual Asset Allocation vs. Target, as of June 30, 2022

Actual Asset Allocation



Target Asset Allocation



Asset Class	\$Millions Actual	Weight Actual	Target	Percent Difference	\$Millions Difference
Domestic Equity	3,333	31.3%	30.0%	1.3%	138
Non US Equity	1,492	14.0%	20.0%	(6.0%)	(639)
Fixed Income	2,043	19.2%	25.0%	(5.8%)	(620)
Real Estate	1,432	13.4%	10.0%	3.4%	367
Alternative Assets	2,213	20.8%	15.0%	5.8%	615
Cash	139	1.3%	0.0%	1.3%	139
Total	10,651	100.0%	100.0%		

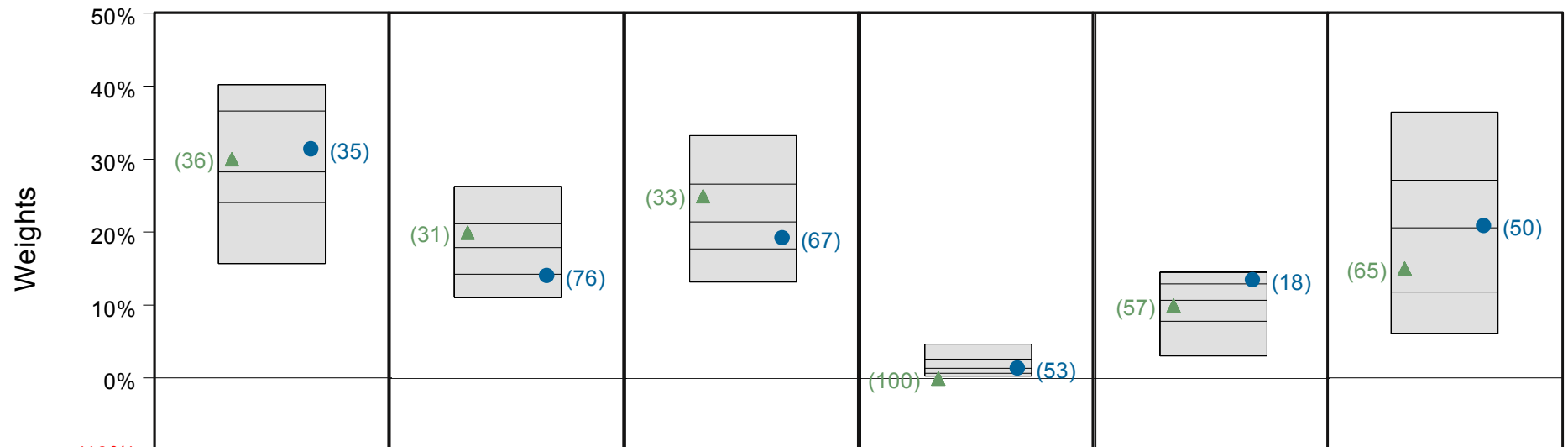
* Current Quarter Target = 30% Russell 3000 Index, 25% Bloomberg Universal, 20% MSCI ACWI ex US, 10% NCREIF NFI-ODCE Val Wt Net, 10% S&P 500 + 3%, and 5% S&P LSTA Leveraged Loan 100.

** 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 June 30, 2022

Asset Class Weights / Policy Target vs. Callan Public Fund Sponsors – Large (>1B)



(10%)

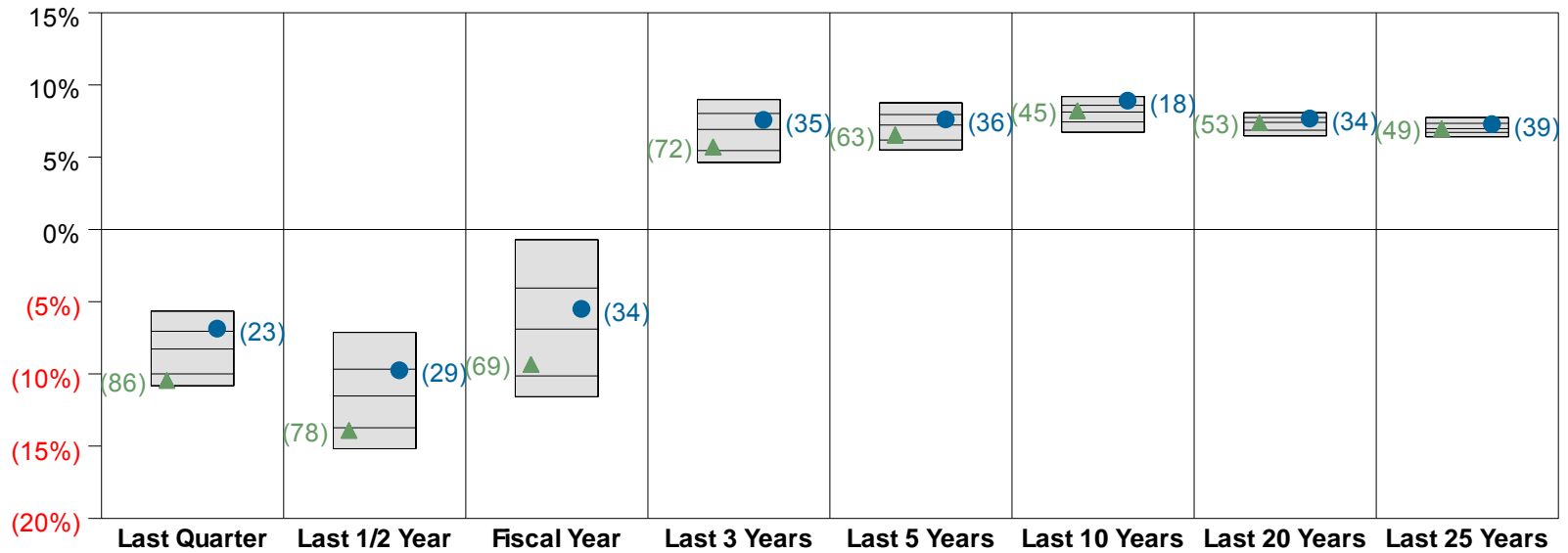
	Domestic Equity	Non US Equity	Fixed Income	Cash	Real Estate	Alternative Assets
10th Percentile	40.21	26.32	33.30	4.71	14.57	36.45
25th Percentile	36.60	21.20	26.63	2.64	12.98	27.12
Median	28.24	17.95	21.46	1.41	10.72	20.58
75th Percentile	24.03	14.28	17.76	0.71	7.84	11.78
90th Percentile	15.68	11.11	13.24	0.34	3.11	6.10
Fund ●	31.29	14.00	19.18	1.31	13.44	20.77
Policy Target ▲	30.00	20.00	25.00	0.00	10.00	15.00
% Group Invested	100.00%	97.83%	97.83%	84.78%	82.61%	57.14%

* Current Quarter Target = 30% Russell 3000 Index, 25% Bloomberg Universal, 20% MSCI ACWI ex US, 10% NCREIF NFI-ODCE Val Wt Net, 10% S&P 500 + 3%, and 5% S&P LSTA Leveraged Loan 100.

Total Fund Performance – Gross of Investment Management Fees

Performance vs. Large Public DB Plan (>\$1B) Peers, as of June 30, 2022

Performance vs Callan Public Fund Large DB (Gross)



	Last Quarter	Last 1/2 Year	Fiscal Year	Last 3 Years	Last 5 Years	Last 10 Years	Last 20 Years	Last 25 Years
10th Percentile	(5.65)	(7.12)	(0.70)	8.99	8.77	9.19	8.09	7.75
25th Percentile	(7.05)	(9.67)	(4.06)	8.03	7.95	8.60	7.75	7.35
Median	(8.27)	(11.52)	(6.90)	6.93	7.23	8.13	7.41	6.97
75th Percentile	(10.00)	(13.72)	(10.13)	5.46	6.19	7.45	6.87	6.72
90th Percentile	(10.82)	(15.17)	(11.58)	4.64	5.50	6.72	6.48	6.42
Total Fund Composite	● (6.94)	(9.82)	(5.57)	7.50	7.54	8.84	7.60	7.20
Total Fund Benchmark - Unlagged	▲ (10.45)	(13.91)	(9.34)	5.72	6.54	8.23	7.38	6.98

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

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INVESTMENT EXPENSES BY ASSET CLASS

Investment activity fees and other related expenses:

For the Quarter and Fiscal Year to Date through 06/30/22 (in thousands)

	Assets Under Management	Fees (Quarter)	Fees (FYTD)
Equity Investments			
Domestic (U.S.)	\$ 3,333,078	\$ 2,395	\$ 11,304
Non-U.S.	\$ 1,491,582	\$ 3,126	\$ 11,094
Fixed Income Investments	\$ 2,042,616	\$ 1,188	\$ 5,886
Alternative Investments	\$ 2,212,722	-	-
Gross	-	\$ 3,885	\$ 13,021
Real Estate Investments	\$ 1,431,776	-	-
Gross	-	\$ 3,310	\$ 12,591
Cash	\$ 139,327	-	-
Subtotal Gross Investment Mgt Fees	-	\$ 13,904	\$ 53,896
Custodial Fees	-	\$ 157	\$ 605
Brokerage Fees	-	\$ 333	\$ 1,479
Investment Advisor Fees	-	\$ 163	\$ 489
Investment Professional Fees	-	\$ 137	\$ 413
Investment Staff Administrative Expense	-	\$ 183	\$ 738
Subtotal Investment Servicing Fees	-	\$ 973	\$ 3,724
TOTAL GROSS INVESTMENT EXPENSES	\$ 10,651,101	\$ 14,877	\$ 57,620

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.