



NHRS

New Hampshire Retirement System

Independent Investment Committee's Quarterly Report to the Board July 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 19.7% of total assets. The fixed income allocation was below the policy range by 1.2%, partially balanced by a 0.9% allocation to cash equivalent instruments. During May, the fixed income component of the Fund was rebalanced back within the Investment Policy parameters. The international equity component of the Fund is within the approved allocation range. The Fund had an overweight to domestic equity, real estate and alternatives, and underweight positions to international equity and fixed income

Investment Performance

- The Fund had a gross return of 3.92% over the third quarter of Fiscal Year 2023, underperforming the market benchmark by 0.85% and ranking in the 58th percentile of its peers. On a net-of-fees basis, the Fund returned 3.78%
 - The Non-U.S. Equity and Fixed Income portfolios had positive impacts on relative performance
 - By contrast, the Alternative Assets, 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 19% of peers for the trailing 10-year period, and in the top 31% 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 30% of peers

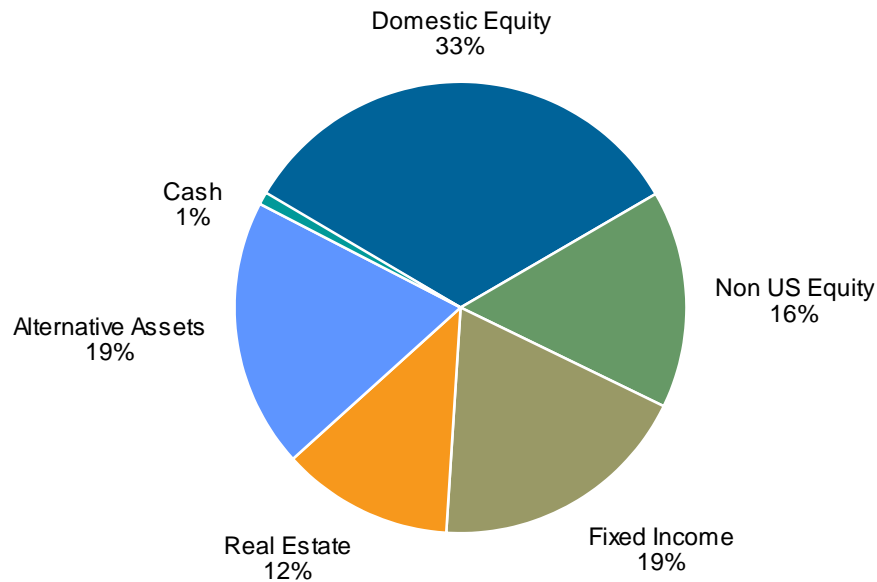
Other Developments

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

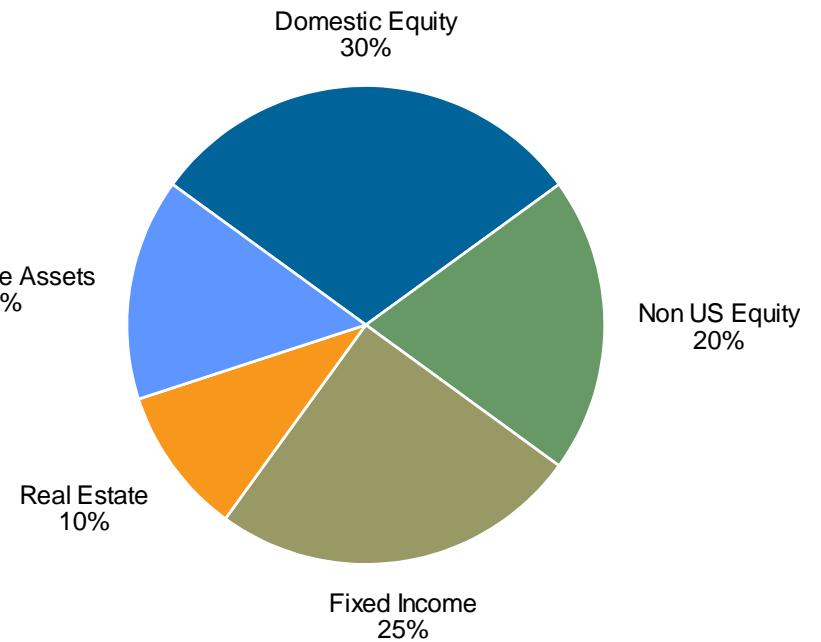
Total Fund

Actual Asset Allocation vs. Target, as of March 31, 2023

Actual Asset Allocation



Target Asset Allocation



| Asset Class | \$Millions Actual | Weight Actual | Target | Percent Difference | \$Millions Difference |
|--------------------|-------------------|---------------|--------|--------------------|-----------------------|
| Domestic Equity | 3,681 | 33.2% | 30.0% | 3.2% | 353 |
| Non US Equity | 1,726 | 15.6% | 20.0% | (4.4%) | (492) |
| Fixed Income | 2,084 | 18.8% | 25.0% | (6.2%) | (689) |
| Real Estate | 1,364 | 12.3% | 10.0% | 2.3% | 255 |
| Alternative Assets | 2,135 | 19.3% | 15.0% | 4.3% | 471 |
| Cash | 103 | 0.9% | 0.0% | 0.9% | 103 |
| Total | 11,093 | 100.0% | 100.0% | | |

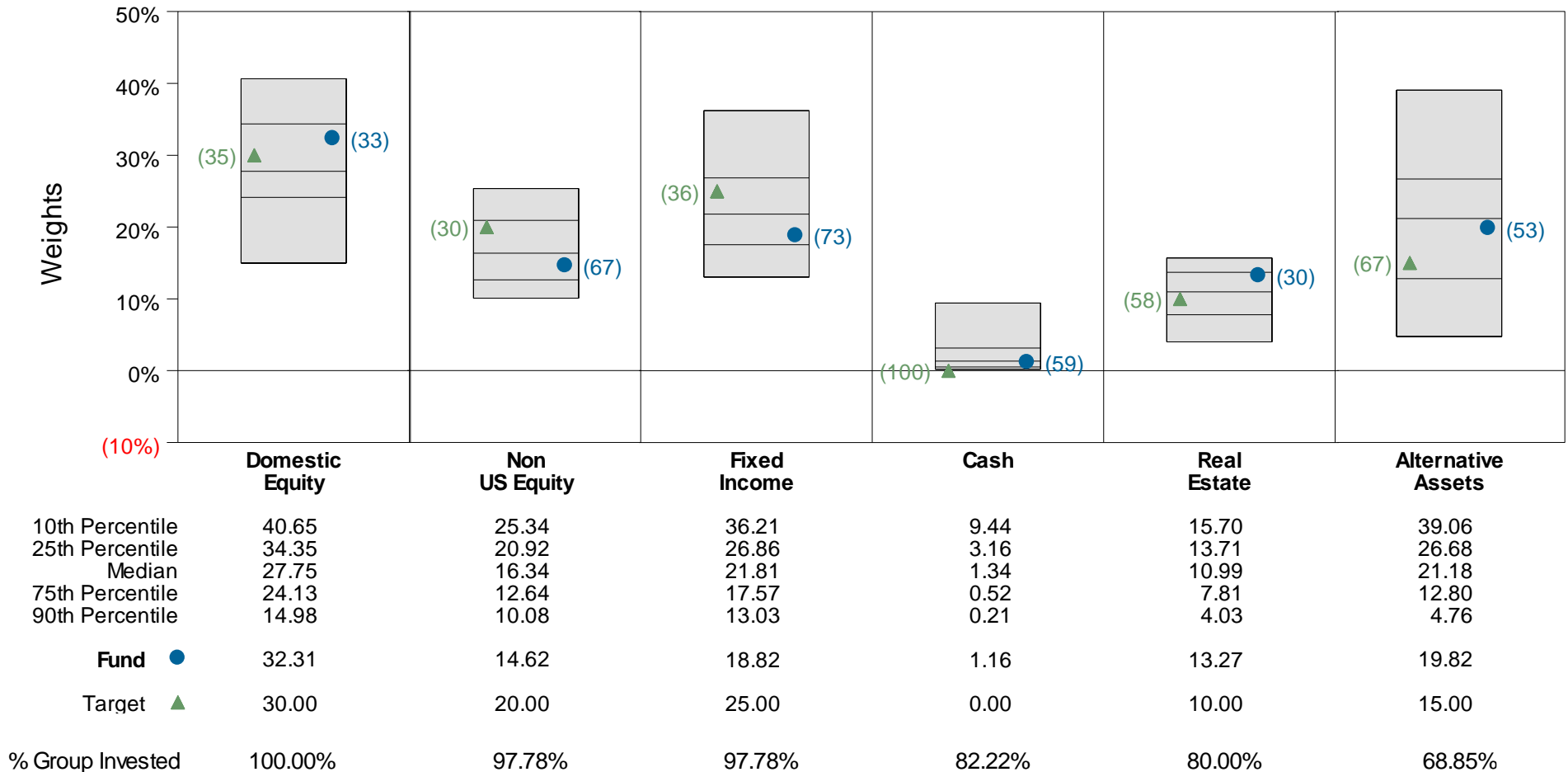
*Current Quarter Target = 30% Russell 3000 Index, 25% Bloomberg Universal, 20% MSCI ACWI ex US, 10% NCREIF NFI-ODCE Val Wt Net lagged 3 months, 10% Russell 3000 Index lagged 3 months+2.0%, 2.5% Bloomberg HY Corp lagged 3 months+1.0%, and 2.5% S&P/LSTA Lev Loan 100 lagged 3 months+1.0%.

**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 March 31, 2023

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

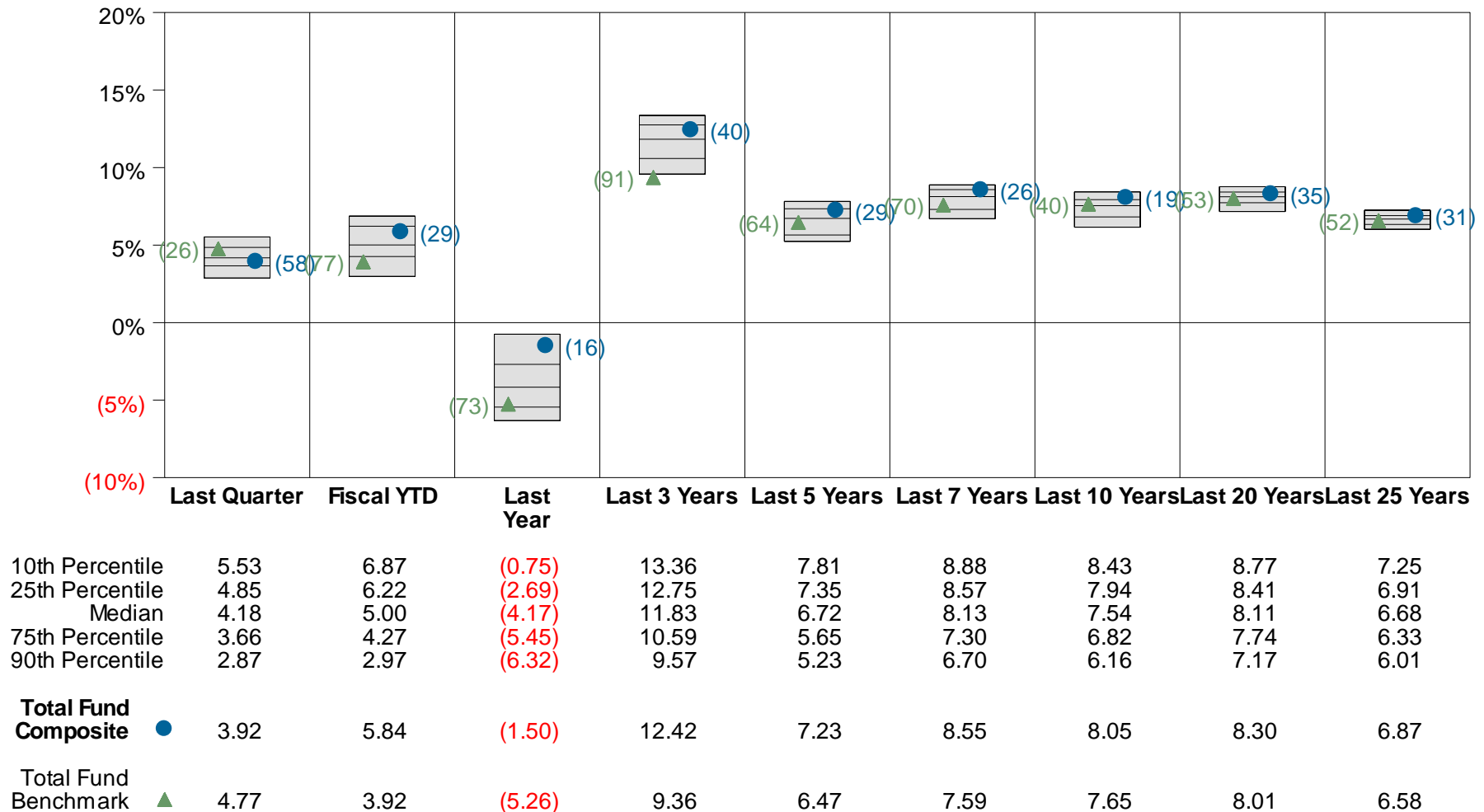


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Total Fund Performance – Gross of Investment Management Fees

Performance vs. Large Public DB Plan (>\$1B) Peers, as of March 31, 2023

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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INVESTMENT EXPENSES BY ASSET CLASS

Investment activity fees and other related expenses:

For the Quarter and Fiscal Year to Date through 3/31/23 (in thousands)

| | Assets Under Management | Fees (Quarter) | Fees (FYTD) |
|---|-------------------------|----------------|---------------|
| Equity Investments | | | |
| Domestic (U.S.) | 3,680,687 | 2,468 | 7,333 |
| Non-U.S. | 1,726,196 | 2,431 | 7,286 |
| Fixed Income Investments | 2,084,180 | 1,413 | 4,301 |
| Alternative Investments | 2,135,435 | 9,164 | 20,857 |
| Real Estate Investments | 1,363,804 | 3,306 | 10,089 |
| Cash | 102,691 | | |
| Subtotal Gross Investment Mgt Fees | | 18,782 | 49,867 |
| Custodial Fees | | | 284 |
| Brokerage Fees | | 477 | 1,088 |
| Investment Advisor Fees | | 163 | 488 |
| Investment Professional Fees | | 19 | 119 |
| Investment Staff Administrative Expense | | 213 | 670 |
| Subtotal Investment Servicing Fees | | 871 | 2,648 |
| TOTAL GROSS INVESTMENT EXPENSES | 11,092,993 | 19,654 | 52,514 |

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.