

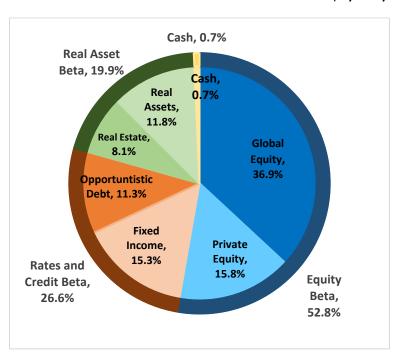
CIO INVESTMENT REPORT

~ by Larry Krummen, CFA ~ Chief Investment Officer MPERS Board Meeting – June 16, 2022

Investment Performance Report

NEPC will present MPERS' 1st quarter 2022 investment performance report. A high level summary of the report is provided below.

MPERS' Asset Allocation March 31, 2022 Market Value \$3,199,086,853



1-Year Return: 16.75% 9.13% Benchmark Return: Excess: 7.62% 3-Year Return: 13.16% Benchmark Return: 11.58% Excess: 1.58% 5-Year Return: 11.13% 10.00% Benchmark Return: Excess: 1.13% 10-Year Return: 10.21% 8.96% Benchmark Return: Excess: 1.25%

- The diversified nature of MPERS' investment portfolio continues to add value during this period of increased volatility in the markets. The fund held up very well during the 1st quarter, limiting losses to 0.27% while the average public fund lost 4.9%. The quarterly return ranked in the top 1% of public fund peer universe.
- MPERS' intermediate and long-term returns are the strongest they have ever been relative to peers and the policy benchmark. The value bias within the equity portfolio, which led to the underperformance in 2020 as growth strategies outperformed value, continues to perform well and the alternative asset classes have offered excellent diversification in this volatile market.
- MPERS' three-month, one-, three-, five-, and ten-year returns all rank in the top 3% of the public fund peer universe. The risk-adjusted returns look even better, as the overall fund has a risk profile (as measured by volatility of returns) in the bottom 2% of the peer universe which leads to a Sharpe ratio (a measure of returns vs risk) in the top 1% of the peer rankings.
- As of June 6th, MPERS' estimated return for Fiscal Year 2022 stands at 5.5%.

Current Asset Allocation and Positioning Relative to Targets

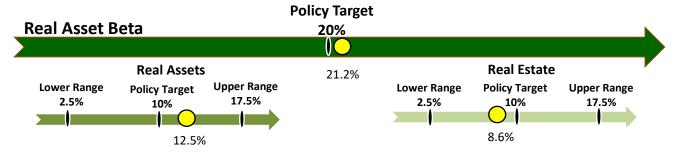
The current allocation relative to policy targets, along with additional comments on the positioning of the portfolio, is provided below. As of June 3, 2022, each of the respective allocations are within the permissible ranges established in MPERS' Investment Policy. The total fund leverage authority is not being utilized and MPERS' cash balance stands at \$32.9 million (1.04% of assets).



The equity portfolio continues to have a strong year relative to policy benchmarks. Since July $1^{\rm st}$, the equity portfolio is down 4.8% relative to the ACWI benchmark, which is down 8.1%. Staff is reasonably well positioned to capitalize on future market volatility, and is able to utilize the total fund leverage authority if markets selloff further from these levels. The private equity portfolio is up 23% thus far in the fiscal year, but we do expect to see some modest writedowns in the portfolio as valuations adjust to public comparables.



Concerns over inflation continue to push interest rates higher and bond prices lower. The 10-year Treasury is hovering around a 3% yield, while the 30-year Treasury now yields 3.13% (the 20-year actually yields more at 3.35%). The underweight position relative to policy targets and relatively short duration of the internal fixed portfolio have both served MPERS well during this recent spike in yields, and we intend to maintain this positioning for the foreseeable future.



The real assets portfolio continues to benefit from the surge in inflation, as higher commodity prices and supply chain disruptions drive most hard asset valuations higher. We expect the portfolio will continue to perform well if these inflationary trends continue. We remain underweight the real estate allocation target, but have recently made some new commitments that should bring the allocation closer to target over the coming months.