CIO INVESTMENT REPORT
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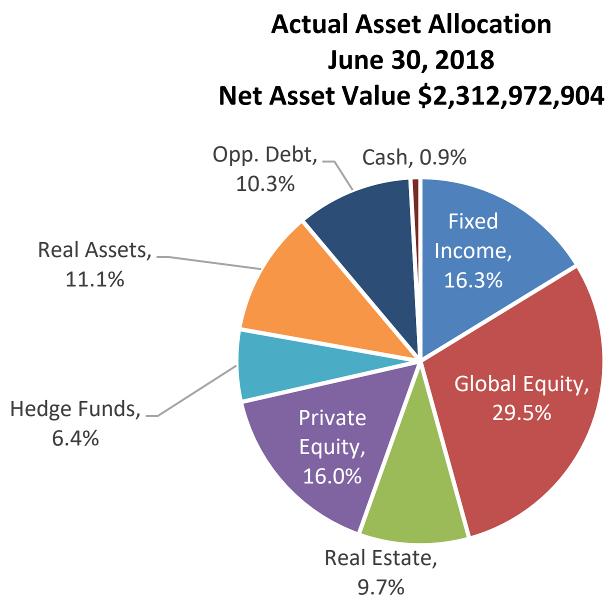
Chief Investment Officer
MPERS Board Meeting – September 27, 2018

Fiscal Year 2018 Investment Performance Report

NEPC will present MPERS' Fiscal Year 2018 performance report. A high level summary of the report is provided below.



1-year Return:	9.43%
Benchmark:	7.69%
Excess Return:	1.74%
3-year Return:	7.13%
Benchmark:	6.76%
Excess Return:	0.37%
5-year Return:	9.04%
Benchmark:	7.94%
Excess Return:	1.10%
10-year Return:	6.40%
Benchmark:	6.22%
Excess Return:	0.18%

- Fiscal year 2018 was an excellent year for MPERS' portfolio using any metric, as the 9.43% return outperformed the policy benchmark, the actuarial return hurdle, and the median public fund return. The alternatives portfolio (everything except stocks and bonds) was the primary driver of performance, collectively generating an 11.5% return versus the 7.2% return from traditional stocks and bonds. The 1.74% excess return over the policy benchmark (the return MPERS' would have earned by investing passively across the approved asset allocation) was the best relative performance since fiscal year 2014.

- Longer term performance remains solid relative to policy benchmarks and the peer universe, as MPERS' three, five, and ten year returns rank in the 18th, 3rd, and 40th percentile of the public fund peer universe. MPERS' risk profile remains in the bottom 23% of the peer universe over the past ten year period (our risk is lower than 77% of our peers).

- Fiscal year 2019 is also off to a nice start for the investment portfolio, as U.S. equity markets continue to trade at or near all-time highs. The combination of steady economic growth, minimal inflation, and some improved rhetoric on the U.S./China trade talks suggest we might continue to grind higher over the course of calendar year 2018. The only asset class that is struggling to produce positive returns is fixed income, where prices are falling with the rising interest rate environment (driven by the improved economy). Overall, the investment portfolio is up roughly 1.5% to start the fiscal year (July 1st – September 18th).

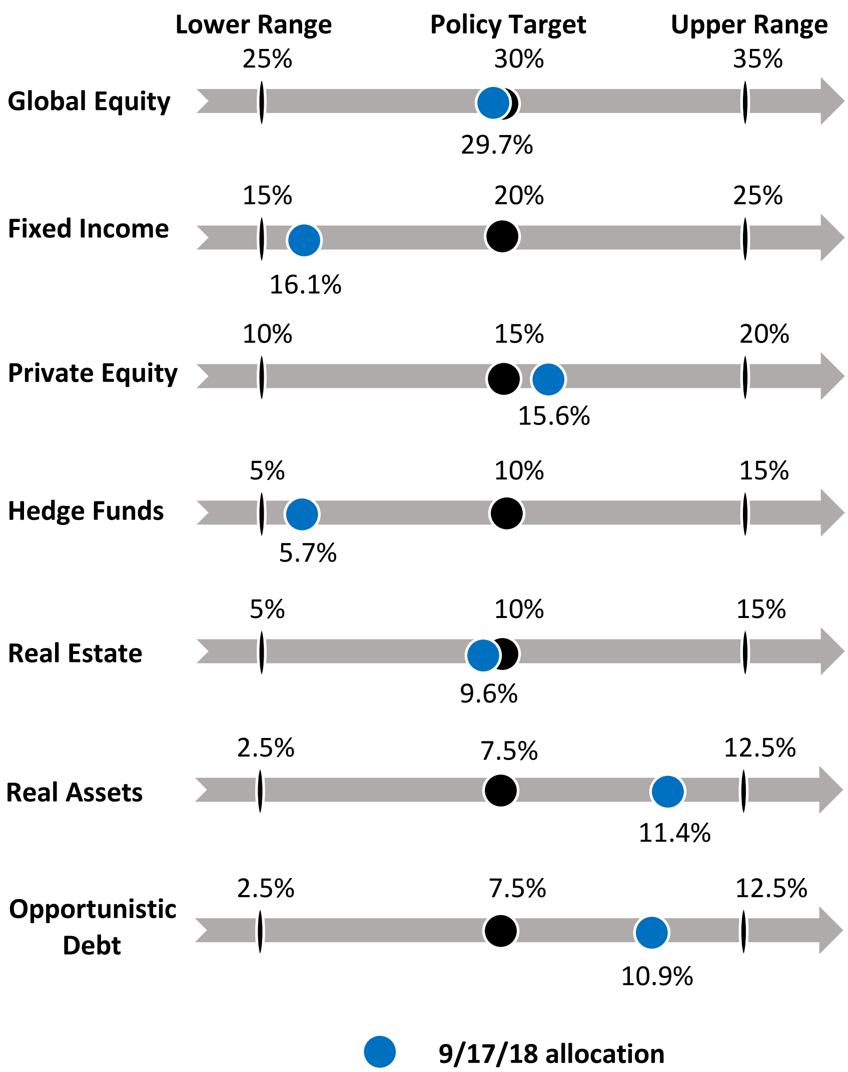
- The current positioning of the portfolio is detailed on the following page.

Current Asset Allocation Overview / Positioning Relative to Targets

As the economy enters a record-long ten year expansion, we continue to have strong conviction with the positioning of the portfolio. We remain underweight the fixed income markets as bond yields continue to increase on the improved economic outlook, but expect to allocate additional funds to the sector as cash becomes available. This underweight position continues to benefit the fund, as it has limited our losses during this period of rising interest rates.

We continue to favor Master Limited Partnerships (MLPs) within the equity portfolio, as the combination of attractive yields and rising oil prices continue to bring investors back to the asset class. The current yield on the MLP portfolio stands at 6.5%, and distributions are expected to grow 5-7% annually over the coming years.

As of September 17, 2018, each of the respective asset class allocations are within the permissible ranges. The current allocation relative to policy targets, along with additional comments on the positioning of the portfolio, is provided below. MPERS' current cash balance stands at $24.2 million (or 1.2% of assets), but is expected to be drawn down close to zero over the coming weeks due to benefit payments and new investments.



Notes on Allocation & Positioning

Global Equity: Recently reduced the allocation to a neutral position vs. policy given valuations and increased market volatility.

Fixed Income: Gradually increasing allocation as interest rates rise. Long-term Government Agency bonds are now yielding over 4%.

Private Equity: Sector remains best performing asset class on an absolute return basis, and continues to mature nicely.

Hedge Funds: Remain underweight in favor of real asset and opportunistic debt strategies. Expect allocation to drift towards 5% minimum.

Real Estate: Portfolio is performing well but increasing interest rates will limit additional gains in the portfolio.

Real Assets: Energy funds continue to performing well with oil trading upwards of $70/barrel. Timber represents 3.5% of portfolio.

Opportunistic Debt: Remains one of the best performaning asset classes with a consistent flow of new investment opportunities.