

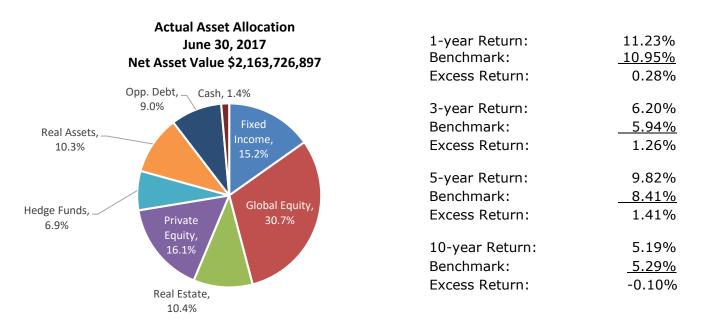
CIO INVESTMENT REPORT

~ by Larry Krummen, CFA ~ Chief Investment Officer MPERS Board Meeting – September 28, 2017

Fiscal Year 2017 Investment Performance Report

NEPC will present MPERS' fiscal year 2017 performance report. A high level summary of the report is provided below.

Big Picture Perspective on Investment Performance:



- Global equity markets continued to rally during the quarter, ending the fiscal year at or near all-time highs and up over 18% for the year. The strength of the equity market helped MPERS' investment portfolio generate an 11.23% return for the year, which outperformed the policy index return of 10.95% along with the actuarial return target of 7.75%.
- MPERS did fall short of the median public fund return of 11.9%, but that is somewhat expected in a year when the global equity markets generated such strong results. MPERS' relatively low exposure to public equities typically results in lagging the broader public fund universe when equity markets are strong, but we also expect to outperform the average public fund in years where equity markets are flat or negative.
- Longer term performance remains strong relative to policy benchmarks and the peer universe, as MPERS' three, five, and ten year returns rank in the 5th, 6th, and 43rd percentile of the public fund peer universe. MPERS' continues to maintain a lower risk profile than 75% of our peer group (with risk measured by standard deviation of returns over the past ten year period).
- Equity markets continue to grind higher and set new highs since June 30th, providing a nice start to fiscal year 2018 performance. The portfolio is up an estimated 1.8% from July 1st to September 19th.
- The current positioning of the portfolio is detailed on the following page.

Current Asset Allocation Overview / Positioning Relative to Targets

There's been little change to the asset allocation since the last Board meeting and the June 30th performance report. We continue to maintain a slight overweight to the equity markets based on strong market momentum and signs of improved economic growth in international markets. We are still concerned over market valuations, but for now the markets are very resilient and, barring any geopolitical events (i.e., North Korea), seem destined to trade higher over the near term. The largest deviation from the targeted asset allocation is the underweight to fixed income, given the historically low interest rate environment, an economy that continues to show signs of growth, and a Federal Reserve that continues to raise the Federal Funds Rate.

As of September 19, 2017, each of the respective asset class allocations are within the permissible ranges, and MPERS' cash balance stands at \$30.8 million (1.4% of assets). The current allocation relative to policy targets, along with additional comments on the positioning and activity within each asset class, are provided below.

	Lower Range	Policy Target L	Jpper Range	Notes on Allocation & Positioning
Global Equity	25%	30%	35%	Modest overweight given strong momentum but we remain concerned over increasing valuations.
Fixed Income	15% 15.0%	20%	25%	Allocation towards bottom end of permissible range due to historically low rates and prospects of Fed tightening.
Private Equit	10%	15%	20%	Allocation has been drifting lower due to distributions and the small number of new commitments.
Hedge Funds	5%	10%	15%	Remain underweight in favor of real asset and opportunistic debt strategies.
Real Estate	5%	10%	15%	Maintaining a market weighting given strong fundamentals but also mindful of increasing valuations (falling cap rates)
Real Assets	2.5%	7.5%	12.5%	A number of recent Timber deals, along with strong returns throughout entire sector, have increased the allocation.
Opportunisti Debt	c 2.5%	7.5%	12.5%	Remains an attractive asset class and one of the strongest performing sectors over the past cycle.
		09/19/17 allocation		