

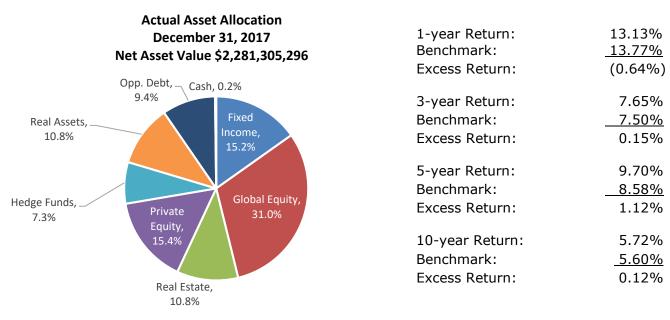
CIO INVESTMENT REPORT

~ by Larry Krummen, CFA ~ Chief Investment Officer MPERS Board Meeting – February 15, 2018

4th Quarter 2017 Investment Performance Report

NEPC will present MPERS' 4th quarter 2017 performance report. A high level summary of the report is provided below.

Big Picture Perspective on Investment Performance:



- Equity markets continued their strong performance through the 4th quarter, with most equity markets ending 2017 with returns exceeding 20%. For the second consecutive quarter, every single asset class has a positive performance across all measurement periods.
- Strong performance in 2017 was not limited to equity markets, as all major asset classes had healthy gains during the year. While the equity portfolio led all asset classes with a 22.5% return, the private equity, real estate, and opportunistic debt portfolios all had double digit gains for the year.
- Longer term performance remains solid relative to policy benchmarks and the peer universe, as MPERS' three, five, and ten year returns rank in the 19th, 7th, and 43rd percentile of the public fund peer universe. MPERS' risk-adjusted returns look even better, ranking in the top quartile of our peers over the ten year period (with risk measured by standard deviation of returns).
- After going over 18 months without a 3% pullback (since the Brexit vote in June of 2016), volatility has once again returned to the equity markets. Fears of inflationary pressures, along with programmatic selling from volatility-focused strategies, have sent equities down sharply in February (erasing nearly all of January's market gains). Despite the spike in volatility, MPERS' fiscal year 2018 performance remains up an estimated 6% for the year (July 1st to February 6th).
- The current positioning of the portfolio is detailed on the following page.

Current Asset Allocation Overview / Positioning Relative to Targets

It was a rough first day on the job for Federal Reserve Chairman Jerome Powell, as markets greeted the new Chairman with a sharp selloff that wiped out all of January's equity market gains. Treasury bonds, normally the safe haven for risk in the equity markets, haven't offered any protection as yields have spiked on fears that inflationary pressures are building in the economy. Fortunately, the fund was reasonably well positioned for the spike in market volatility. The underweight position to fixed income has limited losses in the fixed income portfolio and should prove beneficial if interest rates continue to rise. Perhaps the one disappointment during the selloff was the performance of Master Limited Partnerships (MLPs), which largely traded off with the broader markets and offered very little in terms of diversification for the equity portfolio. We remain bullish for MLPs longer term, given our portfolio's yield of 6.5% and their limited exposure to the underlying commodity price risk.

As of February 7, 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' cash balance stands at \$19 million, or 0.8% of assets.

