CIO INVESTMENT REPORT

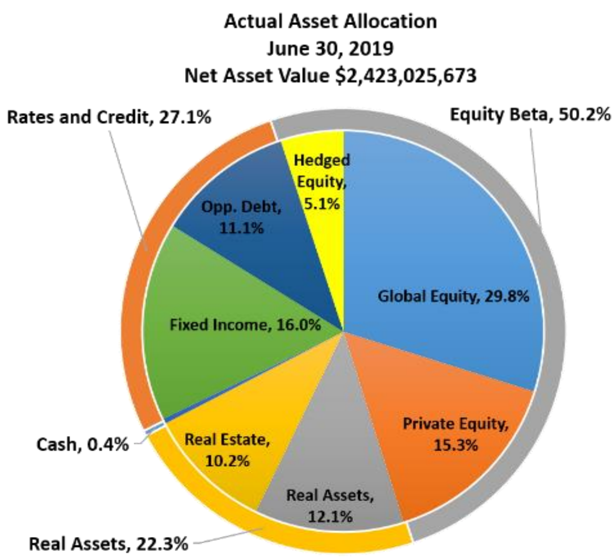
~ by Larry Krummen, CFA ~

Chief Investment Officer

MPERS Board Meeting – September 26, 2019

Fiscal Year 2019 Investment Performance Report

NEPC will present MPERS' fiscal year 2019 investment performance report. A high level summary of the report is provided below.



1-year Return:	6.84%
Benchmark:	8.81%
Excess Return:	(1.97%)
3-year Return:	9.15%
Benchmark:	9.13%
Excess Return:	0.02%
5-year Return:	6.97%
Benchmark:	6.85%
Excess Return:	0.12%
10-year Return:	10.18%
Benchmark:	9.22%
Excess Return:	0.96%

- Fiscal Year 2019 investment performance ultimately finalized at 6.84%. It was a bittersweet year in that we outperformed the average public fund (ranking in top 32% of the peer universe), outperformed a passive 60/40 (stock/bond) allocation, fell largely in-line with MPERS' actuarial hurdle, but meaningfully underperformed MPERS' policy index. As a reminder, MPERS' policy index is the return you would expect to earn if you could invest passively across the approved asset allocation over the entire measurement period. This year there was a significant asset allocation change that went into effect in the middle of the fiscal year (January 1, 2019) that increased the target to public equities from 30% to 40%. With the benefit of hindsight, making a significant asset allocation change directly in between the broad market selloff in the fourth quarter of calendar year 2018 and the subsequent rebound in the first quarter of 2019 led to a meaningful impact on MPERS' policy benchmark return.

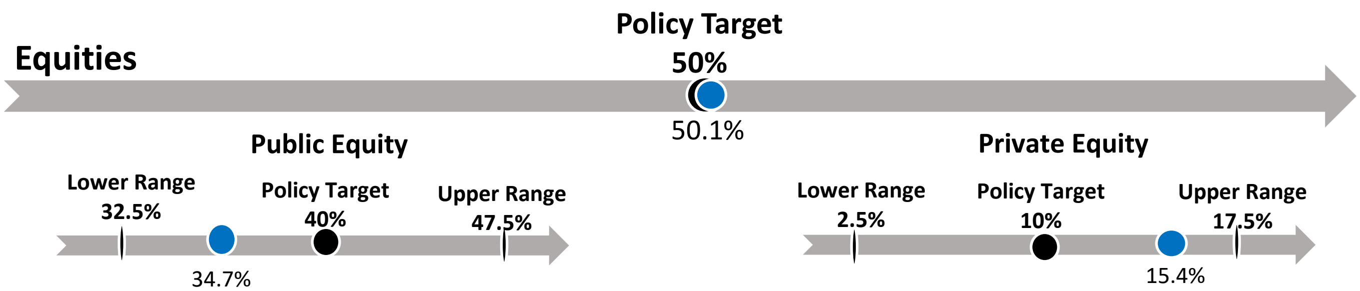
  Had there been no change to MPERS' asset allocation during the year – keeping the same allocation target that was effective July 1, 2018 for the entire fiscal year – MPERS' policy benchmark would have been 6.96% (much closer to actual performance). If MPERS' new asset allocation had been in place for the full fiscal year, the policy benchmark would have been 7.1% (also much closer to actual performance). The underperformance to the policy benchmark comes down to an issue of timing, and more specifically the underweight position to the new public equity equity target on January 1st and the subsequent rebound in the equity markets. The key takeaway here is that until the portfolio has time to transition to the new policy targets, you should expect more significant differences between actual fund performance and the performance of policy benchmarks.

- Longer term, MPERS' returns remain excellent. MPERS' 10-year return ranks in the top 7% of the public fund universe, with a risk profile (as measured by volatility of returns) in the bottom 1% of the peer universe. That combination has produced a 10-year Sharpe ratio (a measure of return per unit of risk) in the top 1% of our peers.

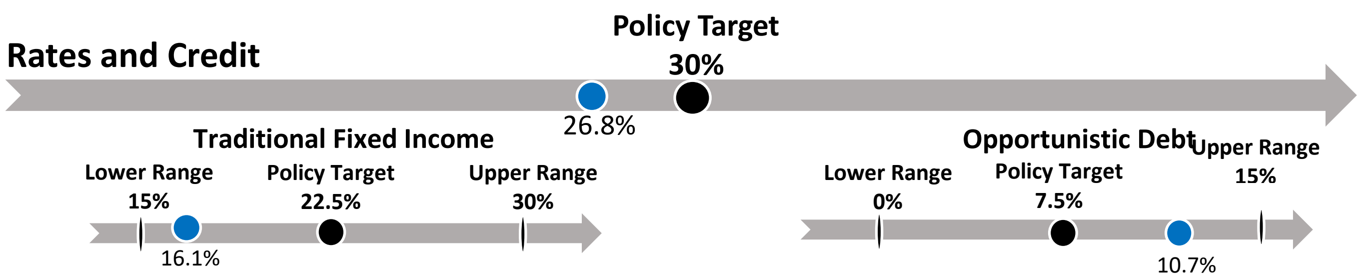
Current Asset Allocation and Positioning Relative to Targets

Effective January 1, 2019, MPERS' Board adopted new asset allocation targets including a new concept which breaks down all investment strategies into three broad beta groups (equities, interest rates and credit, and real assets). We continue to work with Northern Trust and NEPC to incorporate these changes into MPERS' performance and asset allocation reports.

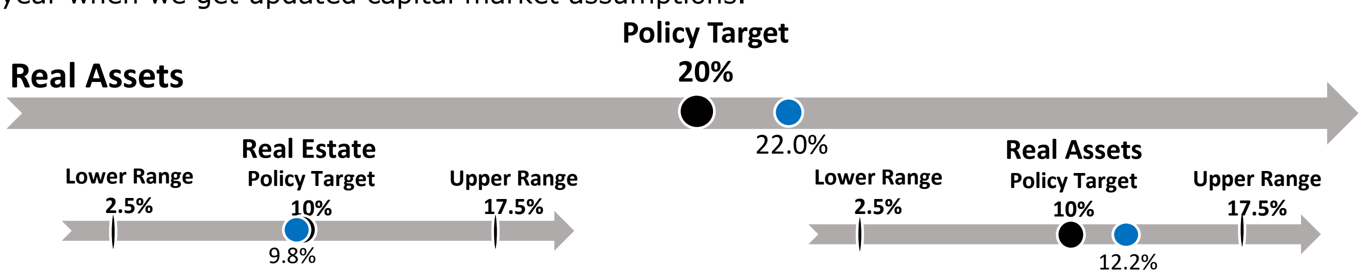
As of September 16, 2019, each of the respective allocations are within the permissible ranges. The current allocation relative to the new policy targets, along with additional comments on the positioning of the portfolio, is provided below. MPERS' current cash balance stands at $27.3 million (or 1.1% of assets).



We continue to maintain a defensive stance with the equity portfolio as we enter the late cycle of the economic recovery, along with the ongoing trade tensions between the U.S. and China and the looming presidential election in 2020. The underweight to public equity is offset by the overweight to private equity, which we expect will remain intact for several years as we gradually move towards the new target of 10%. Hedged equity falls within public equity and represents 5.5% of total assets.



Interest rates have stabilized somewhat after dropping to historical lows in July and August. The bond market is now pricing in between 50-75 basis points of additional rate cuts from the Federal Reserve during calendar year 2018. The 10-year Treasury now yields 1.80%, after dropping as low as 1.5%, while the 30-year Treasury yields 2.25% after dropping under 2% for a brief time. This has considerable implications on our asset/liability study as we are working off last year's assumptions when interest rates were considerably higher. We will likely delay the ultimate presentation until next year when we get updated capital market assumptions.



Weakness in the public energy capital markets has negatively impacted MPERS private energy investments. We expect the sector to return to a more normal activity level over the long-term as companies focus on cash flow and less on aggressive growth, which has fallen out of favor. Real estate continues to perform well, and should benefit even more with the lower interest rate environment. We are reviewing a few opportunities that could lead to increased allocations in that sector.