

Public Agenda Item #5c

Review, Discussion and Consideration of
the Investment Performance of the System's Assets:
Third Calendar Quarter of 2016 Investment Performance

December 1, 2016

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ERS Trust Fund Dashboard

Performance

Fund	<u>CYTD</u>	<u>FYTD</u>
Performance:	5.4%	0.6%
Benchmark:	6.8%	0.5%
Excess Return:	-1.4%	0.1%
3-Yr Tracking error		1.37

Largest Contributors (quarter):

- Outperformance of the absolute return portfolio
- Outperformance of the private real estate component

Largest Detractors (quarter):

- Underperformance of the strategies within the domestic equity and directional growth portfolio
- Underperformance of the private equity portfolio

Profile

Market Value at 9/30/16:
\$25.6 Billion

Actuarial Accrued Liability 8/31/15:
\$33.9 Billion

Retirees and Beneficiaries 8/31/15:
100,716

Retirement Payments Annually 8/31/15:
\$2.1 Billion

ERS Trust Funding Ratio 8/31/15:
76.3%

Compliance

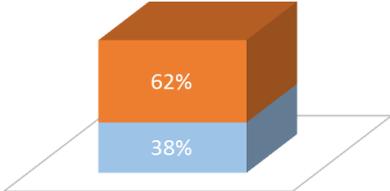
Asset Allocation Compliance: Yes

Tracking Error Compliance: Yes

Investment Policy Compliance: Yes

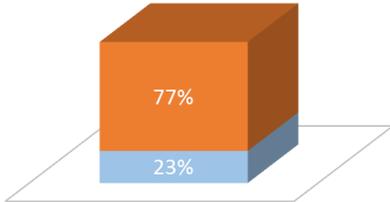
MANAGEMENT

External Internal



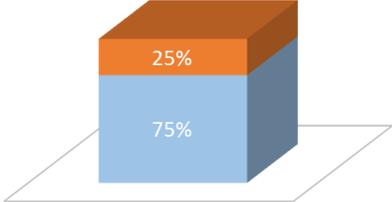
ALLOCATION

Risk Reducing Return Seeking



LIQUIDITY

Liquid Illiquid

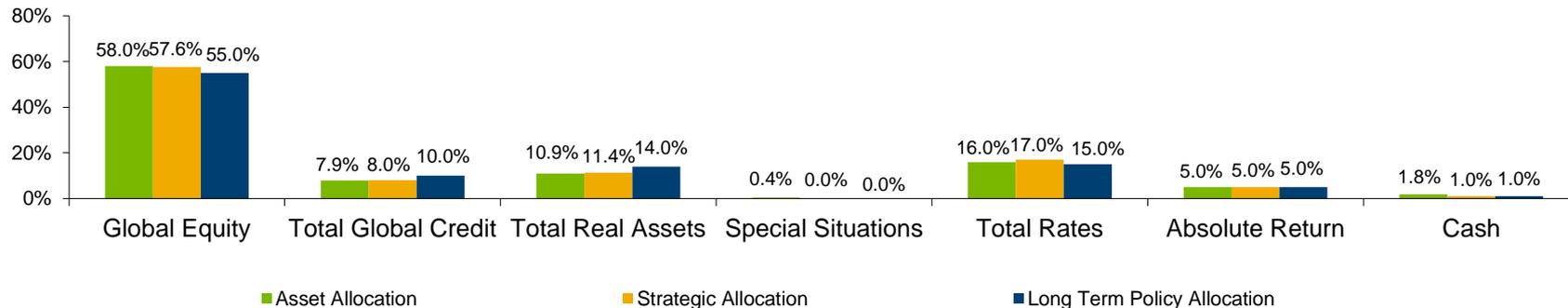


Total Fund: Asset Allocation

Summary of Cash Flow

	1 Quarter	Fiscal YTD	1 Year
Total Fund			
Beginning Market Value	24,685,204,418	25,499,105,144	24,533,633,307
+ Additions / Withdrawals	-219,154,046	-80,485,950	-893,842,755
+ Investment Earnings	1,104,336,602	151,767,780	1,930,596,422
= Ending Market Value	25,570,386,973	25,570,386,973	25,570,386,973

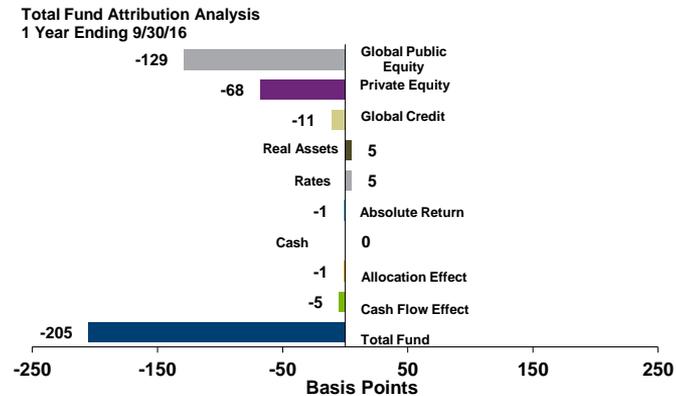
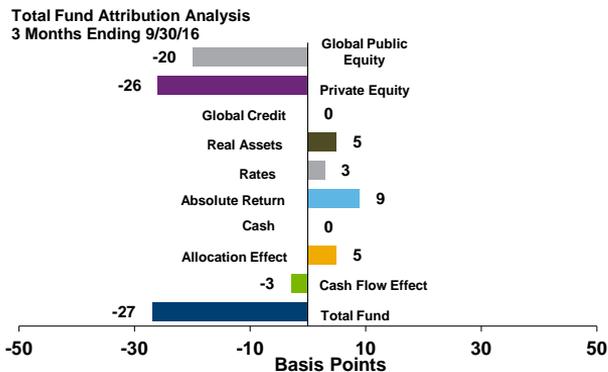
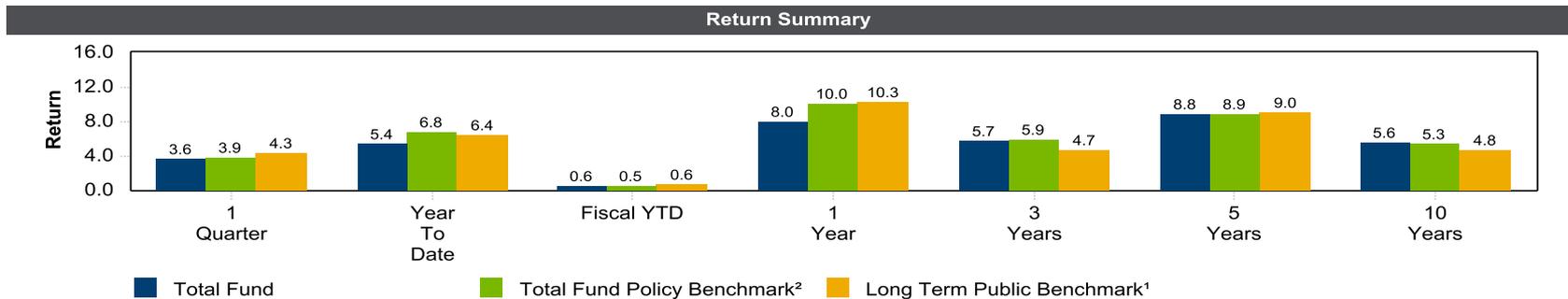
Employees Retirement System of Texas - Quarterly Asset Allocation Including Risk Management vs. Policy Target as of 9/30/2016



¹ All returns contained in this report are shown net of investment management fees. All returns longer than 1-year are annualized.

² Source data can be found on pages 31 and 40 of full report.

Total Fund: Performance

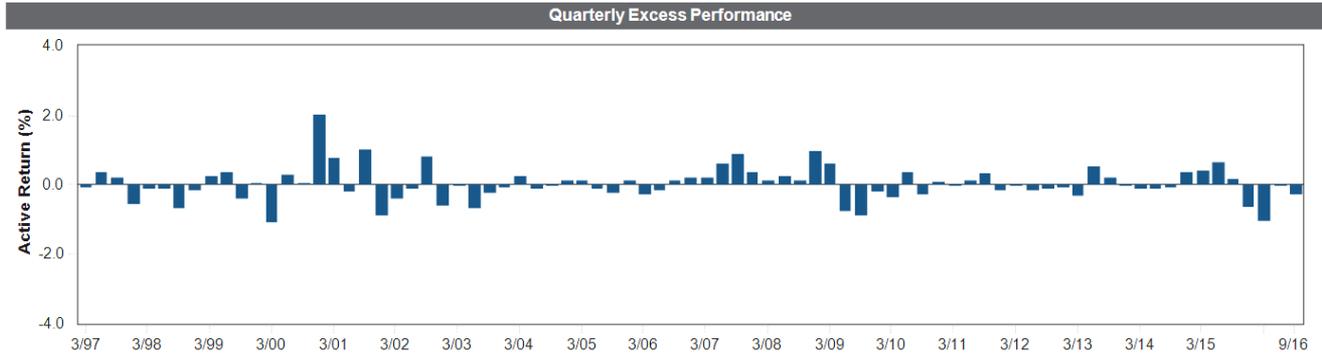
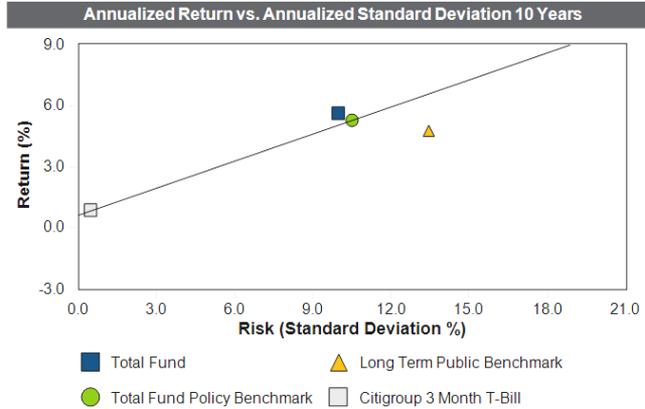
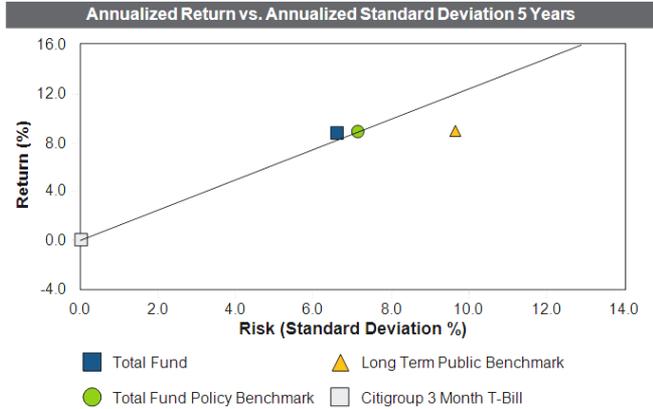


¹The Long Term Public Benchmark is a combination of 79% MSCI ACW IMI and 21% Barclays Intermediate Treasury Index.

²A detailed description of the Policy Index as of 9/30/2016 is provided in the appendix of the full report.

³Source data can be found on pages 30 and 32 of full report.

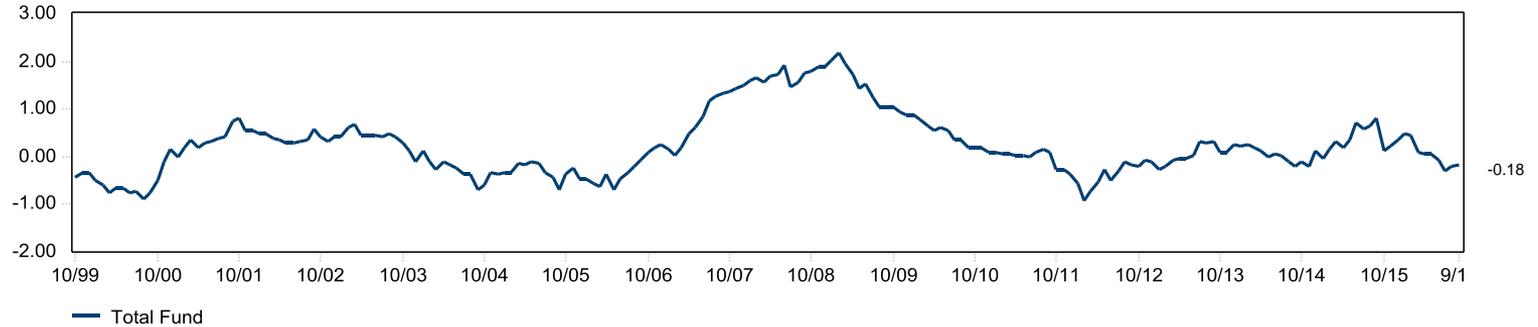
Total Fund: Risk



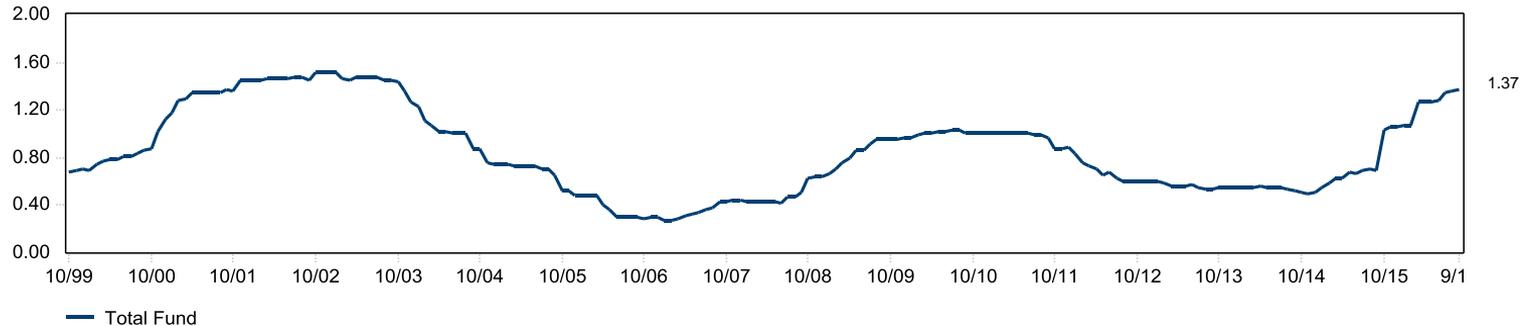
¹ Source data can be found on page 32 and 39 of full report.

Total Fund: Rolling Information Ratio and Tracking Error (36 months)

Information Ratio (Excess Return Ratio¹)



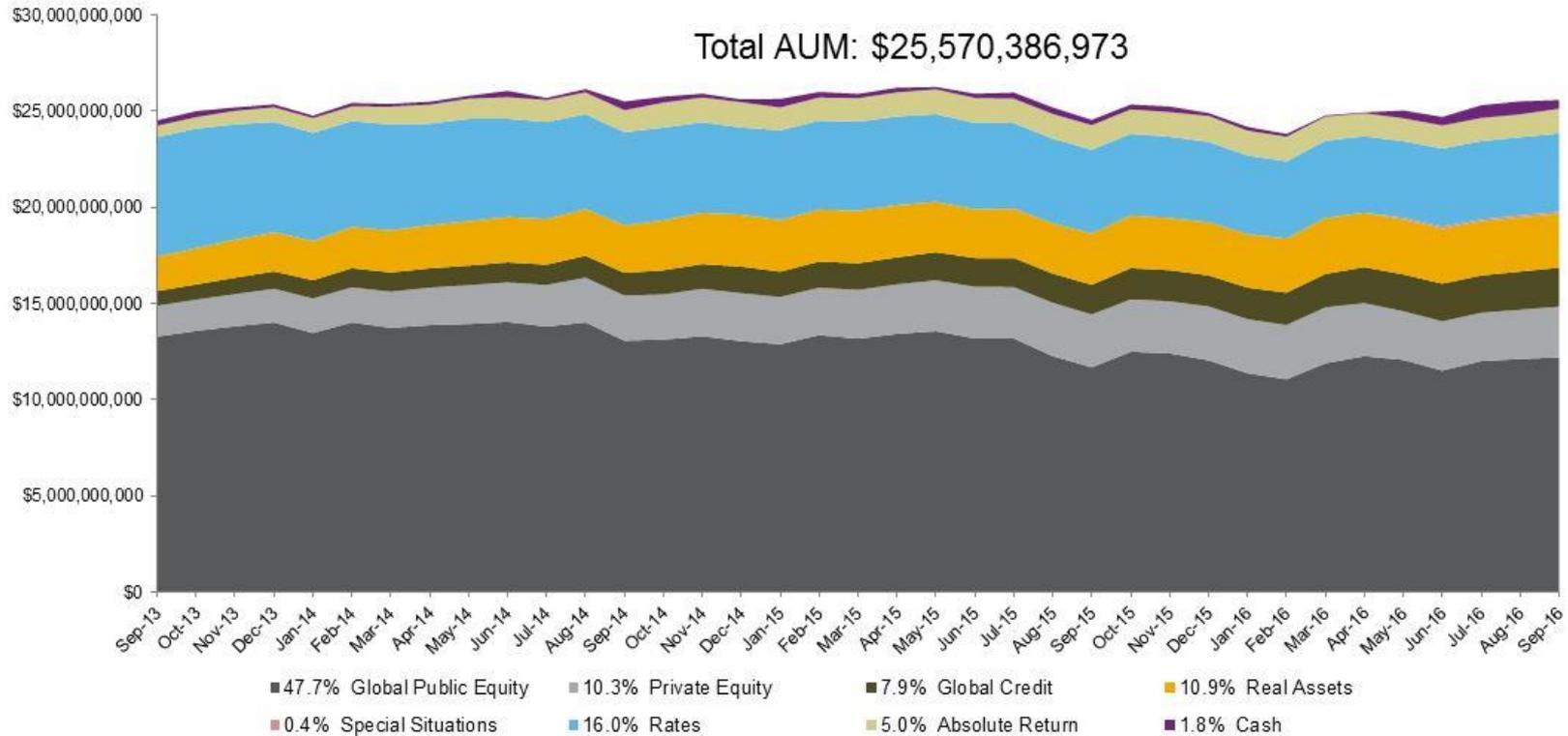
Tracking Error²



¹ Measured by dividing the active rate of return by the tracking error. The higher the Information Ratio, the more value-added contribution by the manager.

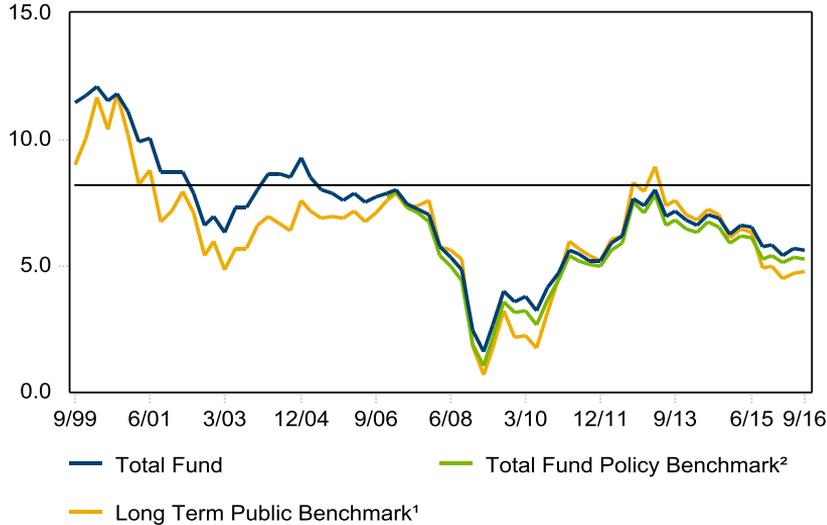
² A measure of the standard deviation of a portfolio's performance relative to the performance of an appropriate market benchmark.

ERS Asset Allocation Evolution

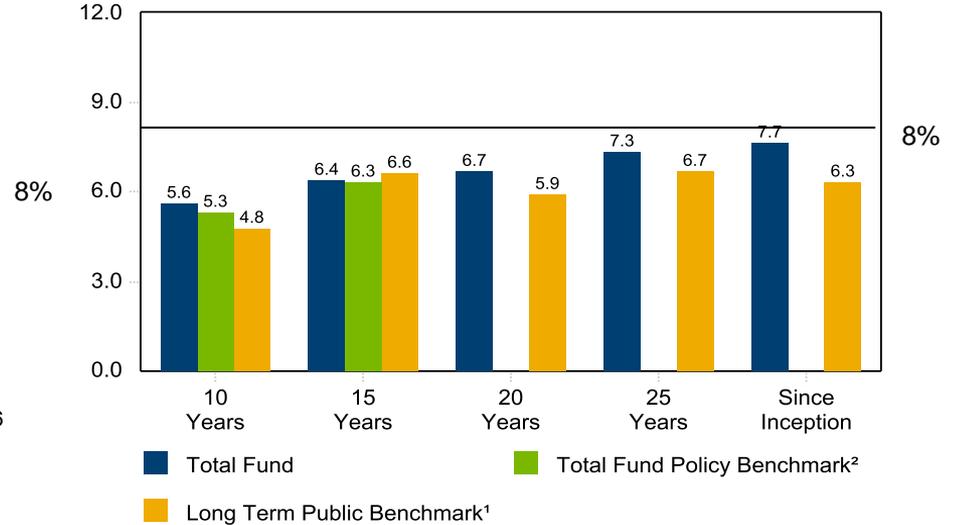


Long Term Investment Results

Rolling 10 Year Return



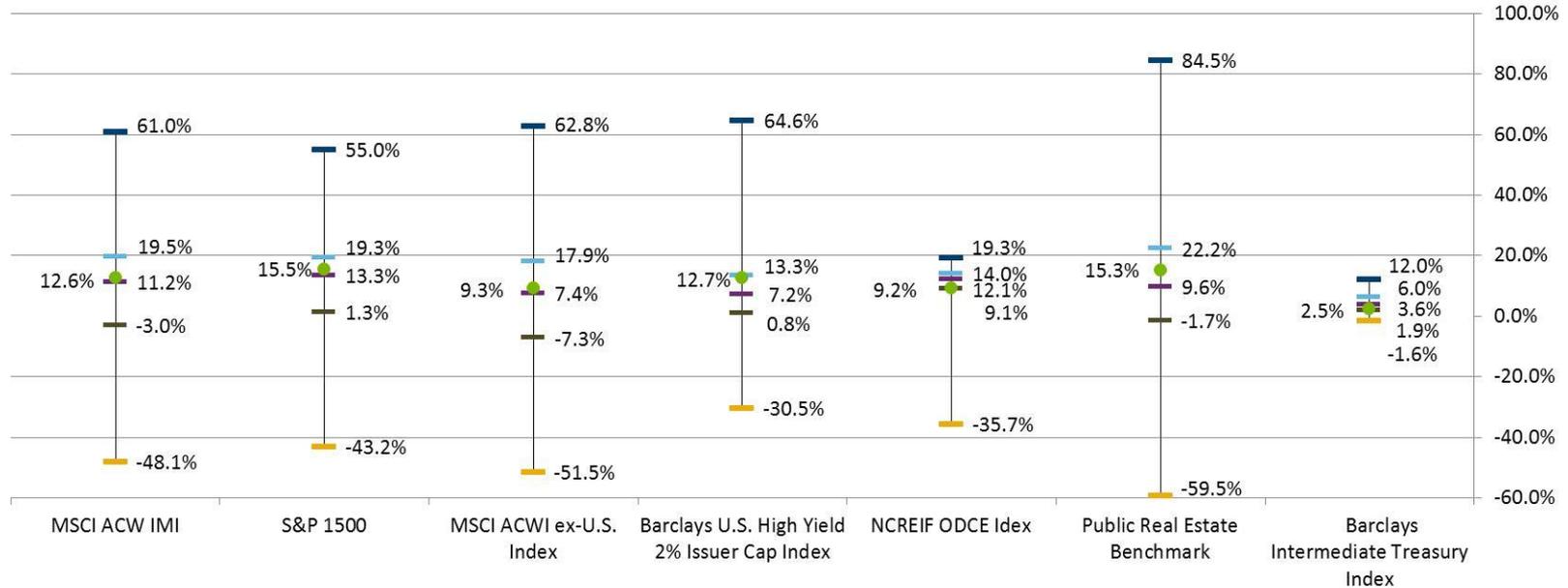
Return Summary



¹The Long Term Public Benchmark is a combination of 79% MSCI ACW IMI and 21% Barclays Intermediate Treasury Index.

²The Total Fund Policy Benchmark has an inception date of 11/30/1996.

Rolling 12-Month Capital Market Returns (10 Years ending 9/30/16)



- The chart above depicts the dispersion of rolling 12 month returns of various capital markets over the last 10 years.

Recent Success of Active Investment Management

Percentage of Active Managers that Outperformed Benchmarks

Fund Category	Benchmark	1-Year	3-Year	5-Year	10-Year
All Multi-Cap Funds	S&P Composite 1500	8	14	5	10
All Large-Cap Funds	S&P 500	15	19	8	15
All Mid-Cap Funds	S&P Mid Cap 400	12	16	12	9
All Small-Cap Funds	S&P Small Cap 600	11	6	2	9
International Funds	S&P 700	45	45	40	20
Global Equity Funds	S&P Global 1200	25	23	18	19
Inter Gov't Bond Funds	Barclays Int Government	36	41	29	20
High Yield Bond Funds	Barclays High Yield	25	20	11	3

Source: S&P Index Versus Active (SPIVA) Scorecard: Mid-Year June 2016

- S&P analyzes performance of mutual funds based on the Lipper database
 - Free from survivorship bias
 - Appropriate comparison of funds to relevant style / capitalization benchmark
- Data depicts the difficulty associated with adding value net of investment management fees
 - Over ten years the benchmark would be in the top quartile of each category
 - Over recent periods international equity and intermediate government bonds have been areas where active management has been able to add value

Summary Analysis

- Public equity underperformance has been the largest detractor from Total Fund results during the trailing 12 month period.
 - Public equity accounted for 129 bps of Total Fund underperformance (-205 bps).
 - U.S. equity contributed 74 bps of public equity underperformance.
 - Over the trailing 12 months ending June 2016, the S&P 1500 outperformed 92% of the managers in the active management universe (SPIVA® U.S. Scorecard).
- Actual allocations were in line with policy at the end of the period.
- Longer term investment results have been generally positive, the Total Fund has produced risk adjusted returns superior to the benchmark and the Long Term Public Benchmark over the five and ten year period.
 - The Total Fund underperformed the benchmark in nominal terms by 0.1% over the trailing five year period.
- The Total Fund has meaningfully outperformed the Long Term Public Benchmark over most longer-term periods.
- Diversification has been effective, the Total Fund Policy Benchmark has produced a return superior to the Long Term Public Benchmark at a meaningfully lower level of risk (volatility) over the trailing five and ten year period.

Questions?