

**STATE OF RHODE ISLAND  
INVESTMENT COMMISSION MEETING**

**DATA AT  
August 31, 2016**

**September 28, 2016  
MEETING**

**MEMBERS OF THE STATE INVESTMENT COMMISSION**

**Honorable Seth Magaziner, Chair**

**Mr. Robert K. Benson  
Mr. J. Michael Costello  
Mr. Thomas P. Fay  
Mr. Frank J. Karpinski  
Ms. Marie Langlois**

**Ms. Sylvia Maxfield  
Ms. Paula M. McNamara  
Mr. Thomas Mullaney  
Ms. Marcia Reback**

## Section I.

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### Agenda



State of Rhode Island and Providence Plantations  
Office of the General Treasurer

**Seth Magaziner**  
General Treasurer

## **RHODE ISLAND STATE INVESTMENT COMMISSION MEETING NOTICE**

The next meeting of the Rhode Island State Investment Commission has been scheduled for Wednesday, September 28th at 9:00 a.m. in Room 205 of the State House.

### **AGENDA**

- Chairperson Call to Order
- Membership Roll Call
- Approval of Minutes
  - State Investment Commission Meeting held on August 1st\*
  - State Investment Commission Meeting held on September 8<sup>th</sup>\*
- TIAA Quarterly Performance Review
- Recommendation to the AEW Core Fund\*
  - David Glickman, Pension Consulting Alliance
- Asset Liability Model Output and Asset Allocation Adoption\*
  - Pension Consulting Alliance
- Legal Counsel Report
- Chief Investment Officer Report
- Treasurer's General Comments

\* Commission members may be asked to vote on this item.

\*\* Commission members may elect to go into executive session pursuant to Rhode Island General Laws §42-46-5 (a) (7).

**POSTED ON September 23, 2016**

Anyone wishing to attend this meeting who may have special needs for access or services such as an interpreter, please contact Tiffany Kaschel at (401) 462-7699 twenty-four hours in advance of the scheduled meeting.

## Section II.

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### Approval of Minutes



**State Investment Commission**  
**Monthly Meeting Minutes**  
**August 1, 2016**  
**9:00 a.m.**  
**Brown University, 200 Dyer St. Providence**

The Monthly Meeting of the State Investment Commission (SIC) was called to order at 9:05 a.m., Monday, August 1, 2016 at Brown University's School of Professional Studies located at 200 Dyer St. in Providence.

## **I. Roll Call of Members**

The following members were present: Mr. Robert Benson, Mr. Michael Costello, Mr. Thomas Fay, Mr. Karpinski, Ms. Marie Langlois, Ms. Sylvia Maxfield, Ms. Paula McNamara, Mr. Thomas Mullaney, Ms. Marcia Reback, and Treasurer Seth Magaziner.

Also in attendance: Mr. John Burns and Mr. Allen Emkin of Pension Consulting Alliance (PCA), general consultants; Ms. Sally Dowling of Adler Pollock & Sheehan P.C., legal counsel; Mr. Tim Nguyen, Chief Investment Officer (interim); Mr. Patrick Marr, Chief of Staff; Ms. Kerri Baker, Cash Manager, and members of the Treasurer's staff.

Treasurer Magaziner called the meeting to order at 9:05 a.m.

## **II. Asset Liability Study Discussion**

Treasurer Magaziner framed the discussion noting the purpose of the day's meeting was to talk about risk tolerance and set parameters around those targeted areas of risk, as well as make assumptions for asset classes. The goal was to establish criteria to create a portfolio with the best expected return within an acceptable level of risk.

Mr. Emkin and Mr. Burns then began to discuss risk preferences. Mr. Emkin explained what is currently in place and has been done to date in order to provide context within the risk framework. Additionally, using historical returns can help in determining helpful correlations for future risk. Mr. Emkin noted that contribution and liquidity are the most important considerations.

The board asked questions.

The model would take into the following constraints: a low probability of having the funding ratio drop below 50%, a low probability of the employer contribution rate rising above 30% of payroll, and maintaining sufficiently liquidity to meet obligations in a stressed environment.

Mr. Emkin transitioned to speaking about how to categorize asset classes and what role the different strategies are supposed to play. He explained it will be important to define and categorize these classes in order to make clear which role each will play, which will increase transparency and aid the public in understanding the purpose each strategy is intended to play within the larger portfolio.

Mr. Emkin outlined the current portfolio structure, including its current target allocation, outlining the role each asset plays. He then delved into the possible portfolio structure and framework models that could be used going forward, detailing the strengths and weaknesses of each and spending a considerable amount of

time going over a new type of asset category, the 'Risk Mitigation Portfolio'. Regardless of the structure selected, Mr. Emkin cautioned that its development should be a phased process to account for the implementation risk of such change.

The board asked questions.

Mr. Emkin said it is worth considering a functional class for crisis protection because ERSRI has a large negative cash flow and the new class would offset economic growth risk and provide significant positive returns and liquidity during a significant market downturn. PCA advised it might be prudent to explore an allocation to alternative premia (also known as alternative beta), long-term treasuries, and systematic trend strategies in the model as they would provide diversification benefits.

These strategies could be obtained in a cost effective manner and have monthly liquidity.

The board asked questions.

The board settled on testing models with and without the new functional class, and staff will examine further pros and cons of its implementation based on model results.

Mr. Emkin presented capital market assumptions and asset class constraints to the board. He explained that inflation and real return assets will be what gives expected return going forward. He then went into great detail regarding the preliminary capital market assumptions and constraints as outlined by PCA.

The board asked questions.

The board directed PCA to alter several areas of the modeling constraints in order to coincide with its goals. The selected constraints will be used to run the initial model and results will be presented at the September 8<sup>th</sup> meeting.

### **III. Community Deposit Program Update**

Ms. Baker presented information on People's Credit Union, an institution that would like to participate in the Community Deposit Program. The office has done its due diligence on People's Credit Union and has found that it meets the criteria set forth in the SIC investment policy, making it eligible for participation.

On a motion by Ms. Reback and seconded by Mr. Benson, it was unanimously  
**VOTED: to approve People's Credit Union as an investment bank**

### **IV. 529 Plan Audit Update: Agreed Upon Procedures**

Mr. Marr spoke to the SIC in May 2016 regarding the retention of Marcum LLP for the FY 2016 financial statement audit due to the transitions taking place between both RIHEAA to Treasury and Alliance Bernstein to Ascensus. At the time, Mr. Marr asked the board to approve entering a contract with Marcum for an amount not to exceed \$30,000. The SIC voted unanimously to do so at that time. Furthermore, Mr. Marr explained that the Auditor General and the Treasury also find it prudent to perform an Agreed Upon Procedures engagement with respect to the asset transition in addition to the financial audit statement because all of the assets did not transfer in the same fiscal year. The Agreed Upon Procedures engagement would evaluate specific items related to the cross-receipts of assets through July 8<sup>th</sup>, when the transition was completed. It is best to do so at this time as it forms a stronger basis for next year's financial

statement audit since the termination of the contract with Alliance Bernstein would make it more difficult to gather contacts and good information to properly execute certain audit activities in 2017.

On a motion by Mr. Mullaney and seconded by Ms. Reback, it was unanimously **VOTED: to approve contracting Marcum LLP for an Agreed Upon Procedures engagement not to exceed \$20,000.**

## **V. Legal Counsel Report**

Ms. Dowling informed the Board that a vote to approve the minutes had been inadvertently left out of the agenda and asked that a motion to approve the minutes be taken.

On a motion by Mr. Costello and seconded by Ms. Reback, it was unanimously **VOTED: to approve the minutes of the June SIC meeting.**

## **VI. Chief Investment Officer Report**

Mr. Nguyen gave the performance report for June, noting BREXIT as the key influential factor on the markets for the month. The overall portfolio saw a 0.17% increase for the month, just missing the benchmark of 0.18% and beating the 60/40 benchmark, which decreased by 0.36%. Some notable performers on the month include North American Equities and Emerging Market Equities while International Equities and Equity Hedge Fund program (not to be confused with the Real Return Hedge Fund program, which posted a positive return on the month) underperformed.

Mr. Nguyen then explored the fiscal year numbers, saying it was a mixed year for plan performance as it outperformed the policy benchmark while protecting against steep investment losses in a very challenging year. Using the Sortino Ratio, which is a measure used to understand the downside protection of a portfolio, the plan's 5 and 10 year returns demonstrated great downside protection against the benchmark and the 60/40. For example, the plan declined 0.27% down on the year while equity lost significantly more for the year.

Illiquid strategies such as real estate and infrastructure, performed well, both having had strong returns. Private equity also did well on the year.

Low oil prices affected energy MLPs, which has declined on the year. Emerging markets index funds were also lackluster as they dropped more than 20% in the first two quarters of the year alone due to falling commodity prices and social and political unrest.

Mr. Nguyen also issued an investment administration update: PIMCO experienced an executive change. Although it is not likely to affect the portfolio, it is something to note.

## **VII. Treasurer's General Comments**

Treasurer Magaziner observed the plan beat out the benchmark for the year by about 10 basis points. He credited this to the staff's manager selection in private equity and real estate.

He stated he looks forward to seeing the model outputs in September and went on to thank the staff and board for navigating a difficult environment over the past year.

Raised by Ms. McNamara, Treasurer Magaziner also addressed the fact that Mr. Nguyen is an interim Chief Investment Officer and that there will be a search for a permanent CIO come September. He stated there would be further discussion on that topic when the search begins.

There being no other business to come before the Board, on a motion by Ms. Reback and seconded by Mr. Fay the meeting adjourned at 3:38 p.m.

Respectfully submitted,

**Seth Magaziner,  
General Treasurer**

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**State Investment Commission**  
**Monthly Meeting Minutes**  
**September 8, 2016**  
**9:00 a.m.**  
**Room 205, State House**

The Monthly Meeting of the State Investment Commission (SIC) was called to order at 9:04 a.m., Thursday September 8, 2016 in Room 205 of the State House.

## **I. Roll Call of Members**

The following members were present: Mr. Michael Costello, Mr. Thomas Fay, Ms. Marie Langlois, Ms. Sylvia Maxfield, Ms. Paula McNamara, Mr. Thomas Mullaney, Ms. Marcia Reback, and Treasurer Seth Magaziner.

Mr. Frank Karpinski arrived at 9:06

Also in attendance: Mr. John Burns and Mr. Allen Emkin of Pension Consulting Alliance (PCA), general consultants; Ms. Sally Dowling of Adler Pollock & Sheehan P.C., legal counsel; Mr. Tim Nguyen, Chief Investment Officer (interim); and members of the Treasurer's staff.

Treasurer Magaziner called the meeting to order at 9:04 a.m.

## **II. Approval of Minutes**

On a motion by Mr. Fay and seconded by Ms. Maxfield it was unanimously **VOTED: to approve the draft of the minutes of the June 22<sup>nd</sup>, 2016 meeting of the State Investment Commission.**

## **III. Approval of Minutes**

On a motion by Mr. Costello and seconded by Ms. Langlois, it was unanimously **VOTED: to approve the draft of the minutes of the July 13<sup>th</sup>, 2016 meeting of the State Investment Commission.**

## **IV. Asset Liability Initial Model Review**

Mr. Emkin began by stating the goal of today's meeting was to get direction from the Board in order to refine outputs from the portfolio optimization exercise, which would allow for a recommendation at the September 28<sup>th</sup> meeting. He explained that a lot of work has already been conducted with PCA and Treasury staff, developing numerous iterations to produce the initial models.

Mr. Emkin explained that the models took into consideration the various constraints which were set forth by the Board at the August meeting. This includes optimizing the long-term funding ratio and minimizing the risk of the portfolio falling beneath the 50% funding ratio in the next 5 years. Additionally, the model was carried out with the hopes of minimizing the potential costs relating to payroll. Simultaneously, the model took into consideration the Crisis Risk Offset (CRO), whose purpose is to offset economic growth risk, to minimize performance drawdown, and to provide liquidity during a crisis.

Mr. Emkin highlighted that all versions of the model simulation produced improved results relative to the current portfolio and 60/40.

Mr. Emkin stated that the Board is primarily tasked at this meeting to determine the possible inclusion of the new CRO class, as well as rebalancing the weight assigned to each asset class.

Mr. Emkin pointed out that the model supports a larger allocation to private equity and income class. Conversely, the model supports a lower allocation to inflation protection class and fixed income. He went on to outline how these areas, as well as the other strategic classes, performed under the constraints in the various models.

The Board asked questions.

Mr. Burns then explained the components of CRO. The Board was presented with results from models including and excluding the CRO. The CRO was found to have a positive role in the model portfolio. The Board made adjustments to various asset class weights based on the models which included CROs. It was determined that Treasury staff should aim to balance the US Equity and Non-US Equity asset classes and to slightly increase the Inflation protection bucket. The Board also asked PCA to run the various scenarios again with CRO, assuming an allocation between 8-12%.

As part of the CRO discussion, Mr. Burns presented on Alternative Risk Capture, a sub-component of CRO. The Alternative Risk Capture attempts to capture alternative sources of returns and to enhance portfolio performance. By design, it is market neutral. The Board requested to explore models with and without this component when developing models with the CRO.

## **V. Legal Counsel Report**

There was no legal counsel to report.

## **VI. Chief Investment Officer Report**

Mr. Nguyen gave the performance report for July. This is the first month in Treasurer Magaziner's term that the portfolio posted positive returns across all disciplines. The portfolio saw an increase of 2.37% for the month, marginally failing to meet its benchmark of 2.48% and the 60/40 benchmark of 2.84%. On the calendar year, the portfolio increased 5.10%, exceeding the plan benchmark of 4.78% but underperforming the 5.90% on the 60/40. He explained that riskier asset classes such as emerging markets and global equities saw a rally, and MLPs and traditional fixed income also saw notable increases. These relative returns were driven by favorable security selection.

Mr. Nguyen cited the bubble chart in the SIC materials, showing that for the last 5 years, the total plan has lower portfolio volatility than the plan benchmark as well as the 60/40. During that same time frame, the portfolio's 6.34% return significantly outperformed the 60/40 benchmark of 5.64%: more return, less risk.

## **VII. Treasurer's General Comments**

Treasurer Magaziner noted the Asset/Liability Study is reaching its conclusion and recognized the hard work of all parties involved in the process. When asked what the course of action would be if the models returned on September 28<sup>th</sup> were not satisfactory to the Board, Treasurer Magaziner assured the group that the Board would take as much time as necessary to develop a portfolio where all would be comfortable. He also explained that any changes made to portfolio would be an incremental process to ensure a smooth transition.

There being no other business to come before the Board, on a motion by Ms. Maxfield and seconded by Ms. Reback the meeting adjourned at 11:59 a.m.

Respectfully submitted,

**Seth Magaziner,  
General Treasurer**

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## Section III.

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### Staff Summary

# Portfolio Highlights

## PORTFOLIO PERFORMANCE

### August 2016

For the month, the total portfolio value increased by approximately \$20.4 million to rest at \$7.67 billion. The month's increase comes from \$34.2 million of positive investment performance reduced by \$13.8 million of transfers to meet pension payroll in excess of pension contributions. On a percentage basis, the portfolio rose by 0.44% exceeding the plan benchmark of 0.34% and the 0.16% return from the basic 60% global equity/40% fixed income allocation.

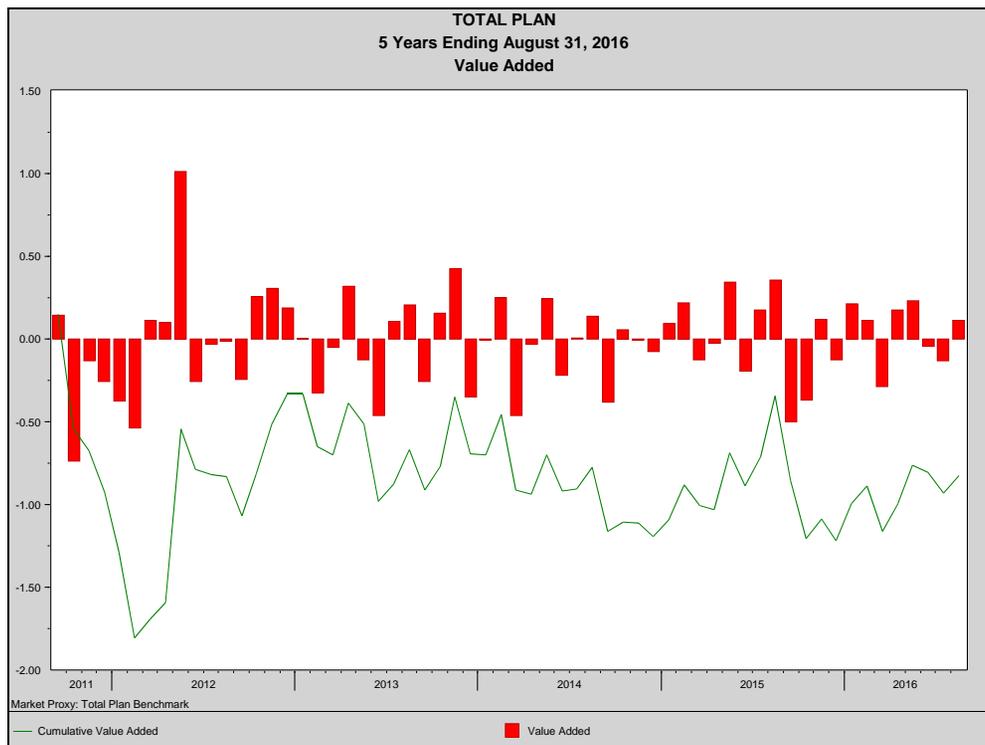
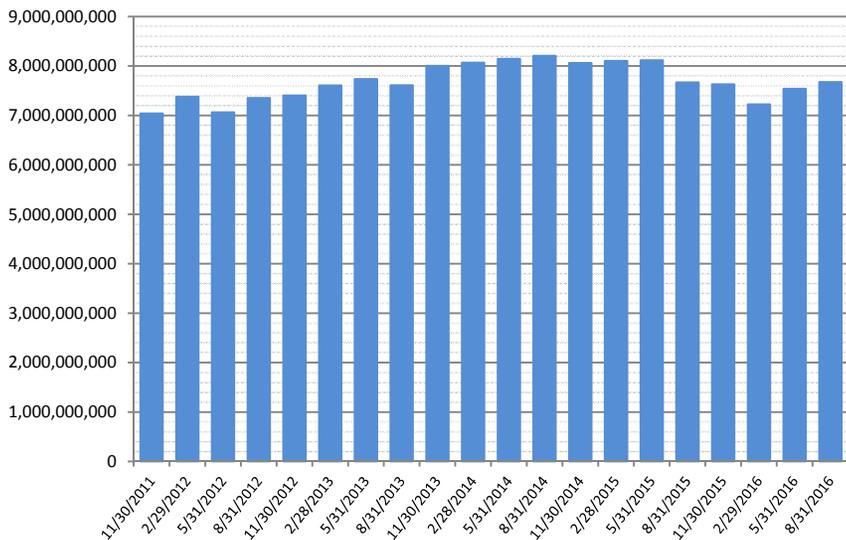
Calendar year-to-date, the total portfolio value has increased by \$77.0 million, with portfolio gains of \$333.5 million offset by \$256.5 million in pension payments. The portfolio's 5.42% investment gain fell short of the benchmark's 5.93%, as well as the 60/40 allocation's 6.98% return.

Fiscal year-to-date, the total portfolio has increased by \$149.1 million, with portfolio gains of \$187.5 million offset by \$38.4 million in pension payments. The portfolio's 2.83% return lagged the 2.85% benchmark and the 60/40 portfolio of 3.00%.

Over a 3 year time frame and when comparing against a 60/40 portfolio, we slightly underperformed at 5.89% when the 60/40 portfolio earned 5.96%. Over a 5 year time frame and when comparing against a 60/40 portfolio, we significantly outperformed at 7.17% when the 60/40 portfolio posted 6.49%

For the month of August, Equities edged higher with some indices reaching all-time highs. Government bonds lost ground, except in the UK and Australia where central banks cut rates to pre-empt economic slowdowns. The US dollar appreciated versus other major currencies. Commodity markets provided more substantial price action as speculation around supply-demand imbalances led to rallies within the energy sector and sharp sell-off in a number of soft commodities. Overall, moves in global financial markets were modest in the month of August in terms of market volatility.

GRAND TOTAL - Market Value



Account Name Benchmark Name	Market Value (M)	Month	Fiscal YTD
US Public Equity	1,215.60	0.26	4.25
Non-US Public Equity	1,160.26	0.79	5.85
Equity Hedge Funds	567.98	1.34	2.67
Private Equity	532.80	0.91	1.34
Traditional Fixed Income	1,068.23	0.03	0.77
Real Estate	510.48	0.50	1.67
Real Return Hedge Funds	496.13	0.75	1.39
Publicly Traded Infrastructure	174.89	1.29	2.15
Priv Listed Infrastructure	83.36	-0.38	-0.16
Credit Aggregate	424.58	0.55	1.84
Inflation-Linked Bonds	284.04	-0.48	-0.17
Total Cash	82.93	0.10	0.19
<b>TOTAL PLAN</b>	<b>7,674.32</b>	<b>0.44</b>	<b>2.83</b>



State of Rhode Island and Providence Plantations  
Office of the General Treasurer

Seth Magaziner

General Treasurer

September 22, 2016

State Investment Commission  
State of Rhode Island, State House  
Providence, Rhode Island

This is to certify that the amounts so listed below belong to the credit of the Employees' Retirement, Municipal Employees', State Police and Judicial Retirement Systems of the State of Rhode Island at the close of business on August 31, 2016.

**Employees' Retirement System of Rhode Island**  
**Composite Reporting Investment Valuation**  
**August 31, 2016**

Asset Class		Base Market Value
<b>Grand Total</b>		<b>7,674,319,357</b>
CASH EQUIVALENT*		192,944,907
EQUITY HEDGE FUNDS**		566,530,885
GLOBAL PUBLIC EQUITY		3,418,955,112
CREDIT		398,731,071
INFLATION-LINKED BDS		262,173,175
PRIVATE EQUITY**		532,804,388
REAL ESTATE**		510,478,128
REAL RET HEDGE FUNDS**		496,127,336
INFRASTRUCTURE**		253,984,391
US TRADITIONAL FIXED		1,041,589,964

Plan Allocations	%	Base Market Value
<b>Grand Total</b>	<b>100.00%</b>	<b>7,674,319,357</b>
STATE EMP RET PLAN	75.67%	5,807,073,959
MUNI EMP RET PLAN	17.94%	1,377,073,213
TEACHER'S SURVIVOR BENEFIT	3.80%	291,922,620
STATE POLICE RET PL	1.55%	119,107,645
JUDICIAL RET PLAN	0.81%	61,913,271
NON-CONTRIB JUD RET	0.01%	599,820
NON-CONT ST POL RET	0.22%	16,628,830

\* Cash & Short-Term Investments, as shown, also includes amounts available within specific active-manager mandates, and thus as aggregated will not tie directly to separate cash allocations as reported elsewhere.

\*\* Alternative Investments – comprising the five components as indicated – have varying degrees of liquidity and may not have readily determinable market values. As such, they may be based on appraisals only.

Respectfully submitted,

Kerri Baker  
Cash Manager

## Section IV.

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### Asset Allocation

# Asset Summary

Balance Date: 8/31/2016



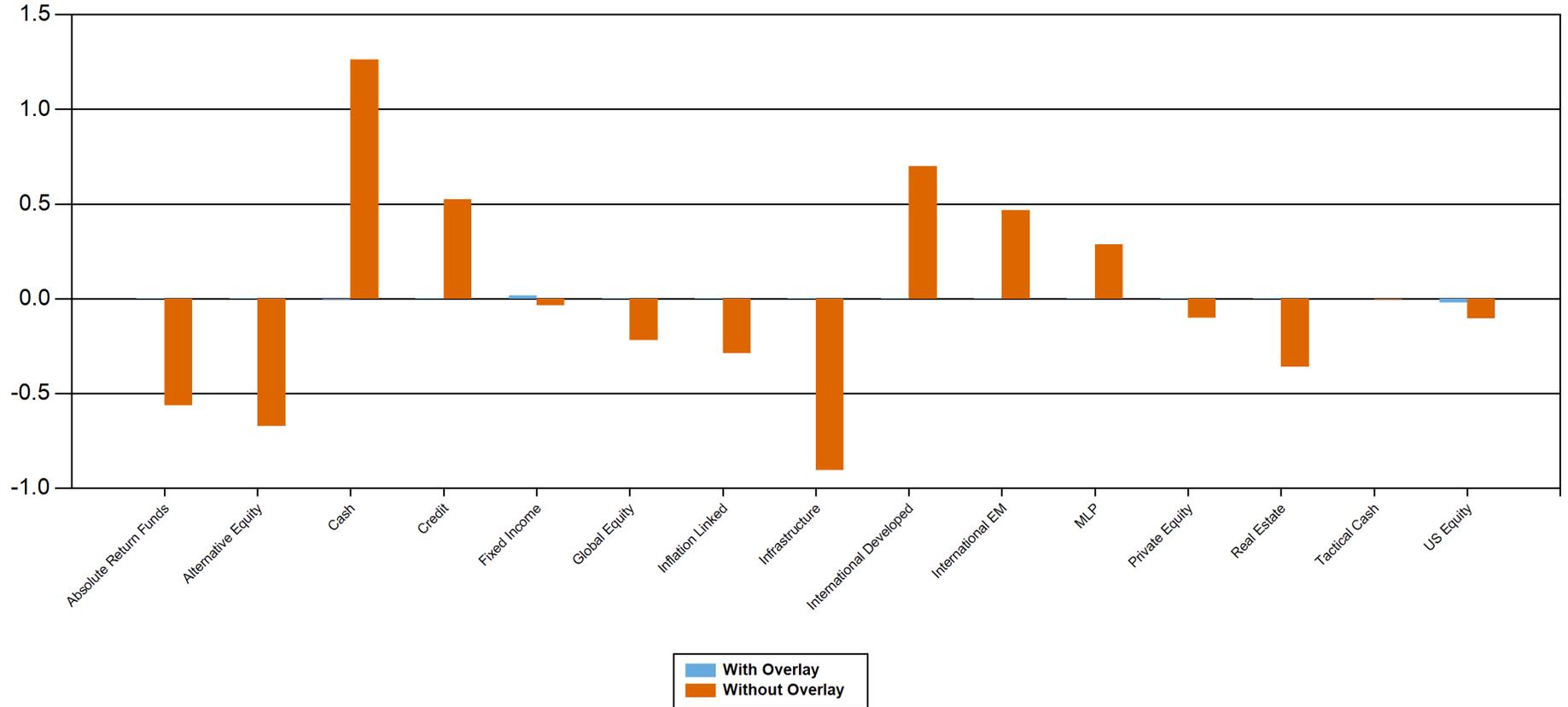
<u>Asset Class</u>	<u>Physical Exposure</u>		<u>Synthetic Exposure</u>		<u>Net Position</u>		<u>Overlay Target</u>		<u>Policy Target</u>	
<b>Total Market Value</b>	<b>7,649.2</b>	<b>100.0 %</b>	<b>0.0</b>	<b>0.0 %</b>	<b>7,649.2</b>	<b>100.0 %</b>	<b>7,649.3</b>	<b>100.0 %</b>	<b>7,649.3</b>	<b>100.00 %</b>
<b>Cash</b>	<b>96.6</b>	<b>1.3 %</b>	<b>-87.2</b>	<b>-1.1 %</b>	<b>9.5</b>	<b>0.1 %</b>	<b>9.7</b>	<b>0.1 %</b>	<b>0.0</b>	<b>0.00 %</b>
Cash	96.6	1.3 %	-87.2	-1.1 %	9.5	0.1 %	9.7	0.1 %	0.0	0.00 %
<b>Equity</b>	<b>4,518.7</b>	<b>59.1 %</b>	<b>66.1</b>	<b>0.9 %</b>	<b>4,584.7</b>	<b>59.9 %</b>	<b>4,585.8</b>	<b>60.0 %</b>	<b>4,513.1</b>	<b>59.00 %</b>
Alternative Equity	560.5	7.3 %	0.0	0.0 %	560.5	7.3 %	560.5	7.3 %	611.9	8.00 %
Global Equity	1,054.1	13.8 %	0.0	0.0 %	1,054.1	13.8 %	1,054.1	13.8 %	1,070.9	14.00 %
International Developed	818.4	10.7 %	-3.7	0.0 %	814.7	10.7 %	814.4	10.6 %	764.9	10.00 %
International EM	341.8	4.5 %	-15.8	-0.2 %	326.0	4.3 %	325.8	4.3 %	306.0	4.00 %
Private Equity	527.8	6.9 %	0.0	0.0 %	527.8	6.9 %	527.8	6.9 %	535.5	7.00 %
US Equity	1,216.0	15.9 %	85.6	1.1 %	1,301.6	17.0 %	1,303.1	17.0 %	1,223.9	16.00 %
<b>Fixed</b>	<b>1,068.2</b>	<b>14.0 %</b>	<b>21.1</b>	<b>0.3 %</b>	<b>1,089.3</b>	<b>14.2 %</b>	<b>1,088.1</b>	<b>14.2 %</b>	<b>1,070.9</b>	<b>14.00 %</b>
Fixed Income	1,068.2	14.0 %	21.1	0.3 %	1,089.3	14.2 %	1,088.1	14.2 %	1,070.9	14.00 %
<b>Other</b>	<b>1,965.7</b>	<b>25.7 %</b>	<b>0.0</b>	<b>0.0 %</b>	<b>1,965.7</b>	<b>25.7 %</b>	<b>1,965.7</b>	<b>25.7 %</b>	<b>2,065.3</b>	<b>27.00 %</b>
Absolute Return Funds	492.4	6.4 %	0.0	0.0 %	492.4	6.4 %	492.4	6.4 %	535.5	7.00 %
Credit	422.6	5.5 %	0.0	0.0 %	422.6	5.5 %	422.6	5.5 %	382.5	5.00 %
Inflation Linked	284.0	3.7 %	0.0	0.0 %	284.0	3.7 %	284.0	3.7 %	306.0	4.00 %
Infrastructure	83.9	1.1 %	0.0	0.0 %	83.9	1.1 %	83.9	1.1 %	153.0	2.00 %
MLP	174.9	2.3 %	0.0	0.0 %	174.9	2.3 %	174.9	2.3 %	153.0	2.00 %
Real Estate	507.9	6.6 %	0.0	0.0 %	507.9	6.6 %	507.9	6.6 %	535.5	7.00 %
Tactical Cash	0.0	0.0 %	0.0	0.0 %	0.0	0.0 %	0.0	0.0 %	0.0	0.00 %

# Asset Summary

Balance Date: 8/31/2016



Percent Deviation from Overlay Target



Total Absolute Notional Value: 126.1 (USD)

# Asset Summary

Balance Date: 8/31/2016



<u>Manager</u>	<u>Total Market Value</u>		<u>Equity Market Value</u>		<u>Fixed Market Value</u>		<u>Other Market Value</u>		<u>Cash Balance</u>	
<b>Total Assets</b>	<b>7,649.3</b>	<b>100.0 %</b>	<b>4,518.7</b>	<b>59.1 %</b>	<b>1,068.2</b>	<b>14.0 %</b>	<b>1,965.7</b>	<b>25.7 %</b>	<b>96.6</b>	<b>1.3 %</b>
<b>Cash</b>	<b>96.6</b>	<b>1.3 %</b>	<b>0.0</b>	<b>0.0 %</b>	<b>0.0</b>	<b>0.0 %</b>	<b>0.0</b>	<b>0.0 %</b>	<b>96.6</b>	<b>1.3 %</b>
Cash Acct (Pooled Trust)	78.1	1.0 %	0.0	0.0 %	0.0	0.0 %	0.0	0.0 %	78.0	1.0 %
Municipal EE's Retirement Plan	0.0	0.0 %	0.0	0.0 %	0.0	0.0 %	0.0	0.0 %	0.0	0.0 %
Russell Overlay	18.5	0.2 %	0.0	0.0 %	0.0	0.0 %	0.0	0.0 %	18.5	0.2 %
State EE's Retirement Plan	0.0	0.0 %	0.0	0.0 %	0.0	0.0 %	0.0	0.0 %	0.0	0.0 %
Tactical Cash-offset Template	0.0	0.0 %	0.0	0.0 %	0.0	0.0 %	0.0	0.0 %	0.0	0.0 %
<b>Equity</b>	<b>4,518.7</b>	<b>59.1 %</b>	<b>4,518.7</b>	<b>59.1 %</b>	<b>0.0</b>	<b>0.0 %</b>	<b>0.0</b>	<b>0.0 %</b>	<b>0.1</b>	<b>0.0 %</b>
<b>Alternative Equity</b>	<b>560.5</b>	<b>7.3 %</b>	<b>560.5</b>	<b>7.3 %</b>	<b>0.0</b>	<b>0.0 %</b>	<b>0.0</b>	<b>0.0 %</b>	<b>0.0</b>	<b>0.0 %</b>
Ascend Partners Fund II, LP	68.2	0.9 %	68.2	0.9 %	0.0	0.0 %	0.0	0.0 %	0.0	0.0 %
Davidson Kempner	78.1	1.0 %	78.1	1.0 %	0.0	0.0 %	0.0	0.0 %	0.0	0.0 %
Elliot Associates, LP	88.1	1.2 %	88.1	1.2 %	0.0	0.0 %	0.0	0.0 %	0.0	0.0 %
ESG	40.9	0.5 %	40.9	0.5 %	0.0	0.0 %	0.0	0.0 %	0.0	0.0 %
Indus Asia Pacific Fund	0.3	0.0 %	0.3	0.0 %	0.0	0.0 %	0.0	0.0 %	0.0	0.0 %
Luxor Capital Partners	5.7	0.1 %	5.7	0.1 %	0.0	0.0 %	0.0	0.0 %	0.0	0.0 %
PFM Diversified Fund LP	76.7	1.0 %	76.7	1.0 %	0.0	0.0 %	0.0	0.0 %	0.0	0.0 %
Samlyn Onshore Fund LP	103.4	1.4 %	103.4	1.4 %	0.0	0.0 %	0.0	0.0 %	0.0	0.0 %
Viking Global Equities	99.0	1.3 %	99.0	1.3 %	0.0	0.0 %	0.0	0.0 %	0.0	0.0 %
<b>Global Equity</b>	<b>1,054.2</b>	<b>13.8 %</b>	<b>1,054.1</b>	<b>13.8 %</b>	<b>0.0</b>	<b>0.0 %</b>	<b>0.0</b>	<b>0.0 %</b>	<b>0.1</b>	<b>0.0 %</b>
Global Equity Transition	0.1	0.0 %	0.0	0.0 %	0.0	0.0 %	0.0	0.0 %	0.1	0.0 %
SSGA Global Fundamental Dev LC	1,054.1	13.8 %	1,054.1	13.8 %	0.0	0.0 %	0.0	0.0 %	0.0	0.0 %
<b>International Developed</b>	<b>818.4</b>	<b>10.7 %</b>	<b>818.4</b>	<b>10.7 %</b>	<b>0.0</b>	<b>0.0 %</b>	<b>0.0</b>	<b>0.0 %</b>	<b>0.0</b>	<b>0.0 %</b>
SSgA MSCI Canada	98.2	1.3 %	98.2	1.3 %	0.0	0.0 %	0.0	0.0 %	0.0	0.0 %
SSgA MSCI EAFE	720.3	9.4 %	720.3	9.4 %	0.0	0.0 %	0.0	0.0 %	0.0	0.0 %
<b>International EM</b>	<b>341.8</b>	<b>4.5 %</b>	<b>341.8</b>	<b>4.5 %</b>	<b>0.0</b>	<b>0.0 %</b>	<b>0.0</b>	<b>0.0 %</b>	<b>0.0</b>	<b>0.0 %</b>
SSgA Emerging Mkts	341.8	4.5 %	341.8	4.5 %	0.0	0.0 %	0.0	0.0 %	0.0	0.0 %
<b>Private Equity</b>	<b>527.8</b>	<b>6.9 %</b>	<b>527.8</b>	<b>6.9 %</b>	<b>0.0</b>	<b>0.0 %</b>	<b>0.0</b>	<b>0.0 %</b>	<b>0.0</b>	<b>0.0 %</b>
Combined Private Equity	527.8	6.9 %	527.8	6.9 %	0.0	0.0 %	0.0	0.0 %	0.0	0.0 %
<b>US Equity</b>	<b>1,215.6</b>	<b>15.9 %</b>	<b>1,215.6</b>	<b>15.9 %</b>	<b>0.0</b>	<b>0.0 %</b>	<b>0.0</b>	<b>0.0 %</b>	<b>0.0</b>	<b>0.0 %</b>
Rhode Island Transition Acct	0.0	0.0 %	0.0	0.0 %	0.0	0.0 %	0.0	0.0 %	0.0	0.0 %
SSgA Russell 3000	1,215.6	15.9 %	1,215.6	15.9 %	0.0	0.0 %	0.0	0.0 %	0.0	0.0 %
<b>US Large Cap</b>	<b>0.4</b>	<b>0.0 %</b>	<b>0.4</b>	<b>0.0 %</b>	<b>0.0</b>	<b>0.0 %</b>	<b>0.0</b>	<b>0.0 %</b>	<b>0.0</b>	<b>0.0 %</b>
Shott Capital	0.4	0.0 %	0.4	0.0 %	0.0	0.0 %	0.0	0.0 %	0.0	0.0 %
<b>Fixed</b>	<b>1,068.2</b>	<b>14.0 %</b>	<b>0.0</b>	<b>0.0 %</b>	<b>1,068.2</b>	<b>14.0 %</b>	<b>0.0</b>	<b>0.0 %</b>	<b>0.0</b>	<b>0.0 %</b>
<b>Fixed Income</b>	<b>1,068.2</b>	<b>14.0 %</b>	<b>0.0</b>	<b>0.0 %</b>	<b>1,068.2</b>	<b>14.0 %</b>	<b>0.0</b>	<b>0.0 %</b>	<b>0.0</b>	<b>0.0 %</b>
MacKay Shields Core	527.7	6.9 %	0.0	0.0 %	527.7	6.9 %	0.0	0.0 %	0.0	0.0 %
Pyramis Core	540.5	7.1 %	0.0	0.0 %	540.5	7.1 %	0.0	0.0 %	0.0	0.0 %
<b>Other</b>	<b>1,965.7</b>	<b>25.7 %</b>	<b>0.0</b>	<b>0.0 %</b>	<b>0.0</b>	<b>0.0 %</b>	<b>1,965.7</b>	<b>25.7 %</b>	<b>0.0</b>	<b>0.0 %</b>
<b>Tactical Cash</b>	<b>0.0</b>	<b>0.0 %</b>	<b>0.0</b>	<b>0.0 %</b>	<b>0.0</b>	<b>0.0 %</b>	<b>0.0</b>	<b>0.0 %</b>	<b>0.0</b>	<b>0.0 %</b>
Tactical Cash Template	0.0	0.0 %	0.0	0.0 %	0.0	0.0 %	0.0	0.0 %	0.0	0.0 %

# Asset Summary

Balance Date: 8/31/2016

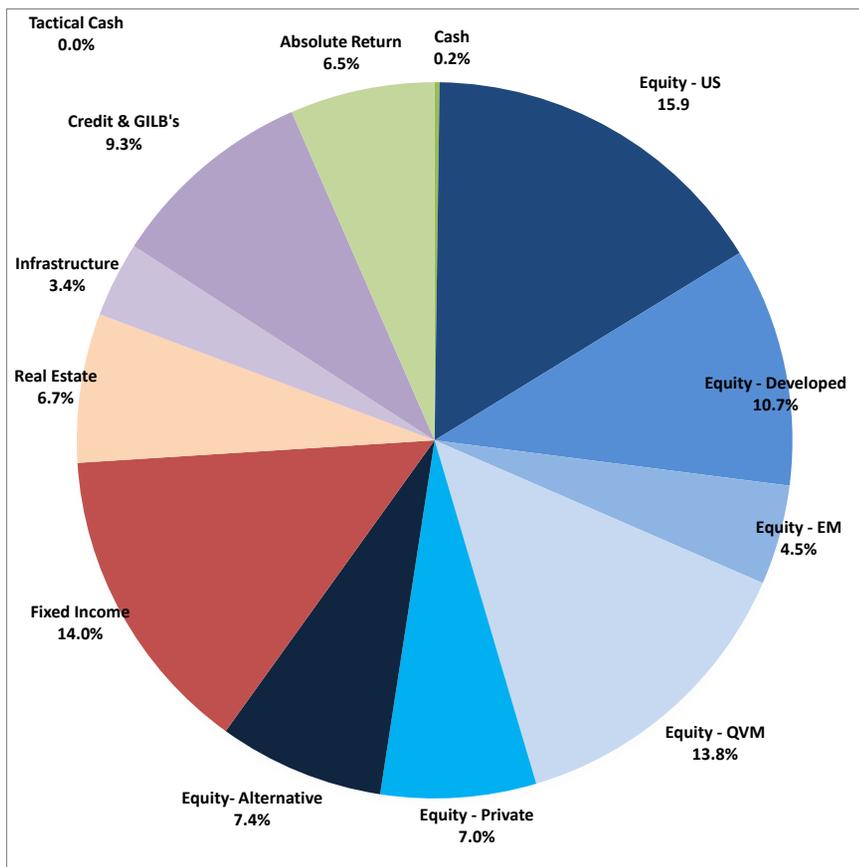


<u>Manager</u>	<u>Total Market Value</u>		<u>Equity Market Value</u>		<u>Fixed Market Value</u>		<u>Other Market Value</u>		<u>Cash Balance</u>	
<b>Absolute Return Funds</b>	<b>492.4</b>	<b>6.4 %</b>	<b>0.0</b>	<b>0.0 %</b>	<b>0.0</b>	<b>0.0 %</b>	<b>492.4</b>	<b>6.4 %</b>	<b>0.0</b>	<b>0.0 %</b>
Brevan Howard LP	76.6	1.0 %	0.0	0.0 %	0.0	0.0 %	76.6	1.0 %	0.0	0.0 %
Brigade Levered Capital	57.7	0.8 %	0.0	0.0 %	0.0	0.0 %	57.7	0.8 %	0.0	0.0 %
Capula Global Relative Value	65.0	0.8 %	0.0	0.0 %	0.0	0.0 %	65.0	0.8 %	0.0	0.0 %
Claren Road Cr Fund	6.2	0.1 %	0.0	0.0 %	0.0	0.0 %	6.2	0.1 %	0.0	0.0 %
D.E. Shaw Composite Fund	93.7	1.2 %	0.0	0.0 %	0.0	0.0 %	93.7	1.2 %	0.0	0.0 %
Graham Global	55.8	0.7 %	0.0	0.0 %	0.0	0.0 %	55.8	0.7 %	0.0	0.0 %
Oz Domestic Partners II	100.2	1.3 %	0.0	0.0 %	0.0	0.0 %	100.2	1.3 %	0.0	0.0 %
Winton Futures Ltd Fund	37.3	0.5 %	0.0	0.0 %	0.0	0.0 %	37.3	0.5 %	0.0	0.0 %
<b>Credit</b>	<b>422.6</b>	<b>5.5 %</b>	<b>0.0</b>	<b>0.0 %</b>	<b>0.0</b>	<b>0.0 %</b>	<b>422.6</b>	<b>5.5 %</b>	<b>0.0</b>	<b>0.0 %</b>
PIMCO	214.7	2.8 %	0.0	0.0 %	0.0	0.0 %	214.7	2.8 %	0.0	0.0 %
WAMCO	207.9	2.7 %	0.0	0.0 %	0.0	0.0 %	207.9	2.7 %	0.0	0.0 %
<b>Inflation Linked</b>	<b>284.0</b>	<b>3.7 %</b>	<b>0.0</b>	<b>0.0 %</b>	<b>0.0</b>	<b>0.0 %</b>	<b>284.0</b>	<b>3.7 %</b>	<b>0.0</b>	<b>0.0 %</b>
Brown Brothers Harriman-GILBS	284.0	3.7 %	0.0	0.0 %	0.0	0.0 %	284.0	3.7 %	0.0	0.0 %
<b>Infrastructure</b>	<b>83.9</b>	<b>1.1 %</b>	<b>0.0</b>	<b>0.0 %</b>	<b>0.0</b>	<b>0.0 %</b>	<b>83.9</b>	<b>1.1 %</b>	<b>0.0</b>	<b>0.0 %</b>
Combined Priv. Infrastructure	83.9	1.1 %	0.0	0.0 %	0.0	0.0 %	83.9	1.1 %	0.0	0.0 %
Infrastructure	0.0	0.0 %	0.0	0.0 %	0.0	0.0 %	0.0	0.0 %	0.0	0.0 %
<b>MLP</b>	<b>174.9</b>	<b>2.3 %</b>	<b>0.0</b>	<b>0.0 %</b>	<b>0.0</b>	<b>0.0 %</b>	<b>174.9</b>	<b>2.3 %</b>	<b>0.0</b>	<b>0.0 %</b>
Harvest Fund Advisor	174.9	2.3 %	0.0	0.0 %	0.0	0.0 %	174.9	2.3 %	0.0	0.0 %
<b>Real Estate</b>	<b>507.9</b>	<b>6.6 %</b>	<b>0.0</b>	<b>0.0 %</b>	<b>0.0</b>	<b>0.0 %</b>	<b>507.9</b>	<b>6.6 %</b>	<b>0.0</b>	<b>0.0 %</b>
Combined Real Estate	507.9	6.6 %	0.0	0.0 %	0.0	0.0 %	507.9	6.6 %	0.0	0.0 %

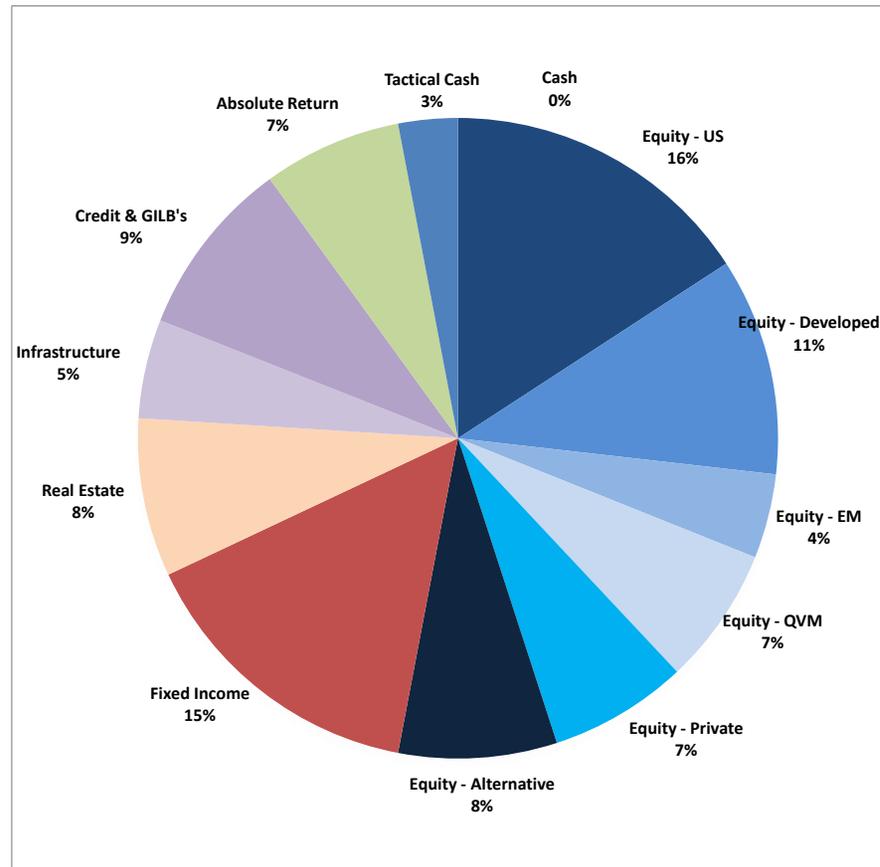
# ERSRI Portfolio

%% - as of August 31st, 2016

## Actual Allocation



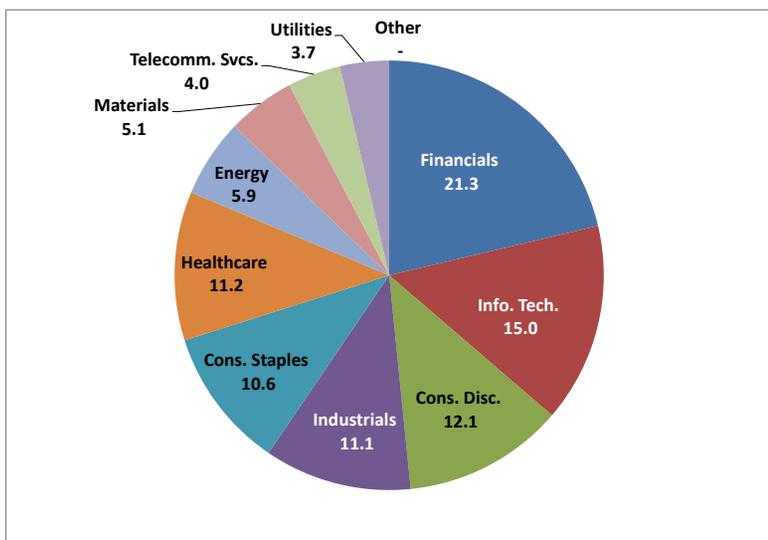
## Policy Allocation



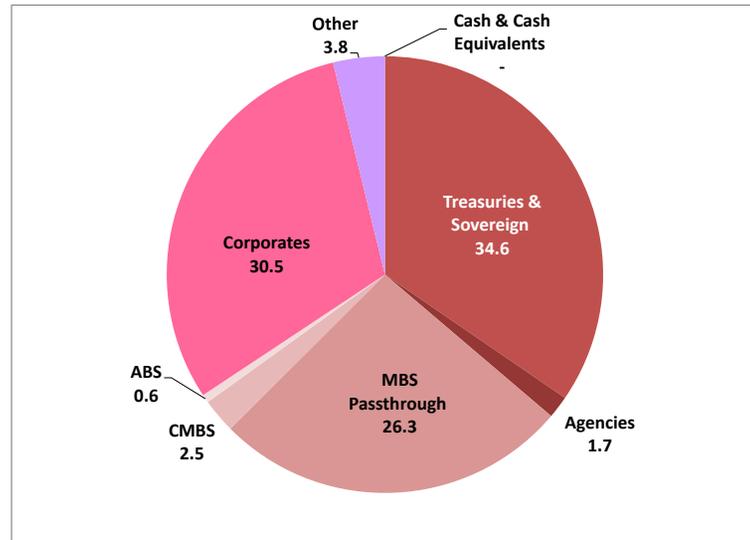
# ERSRI Asset Allocation Public-Asset Portfolios

%% - as of August 31, 2016

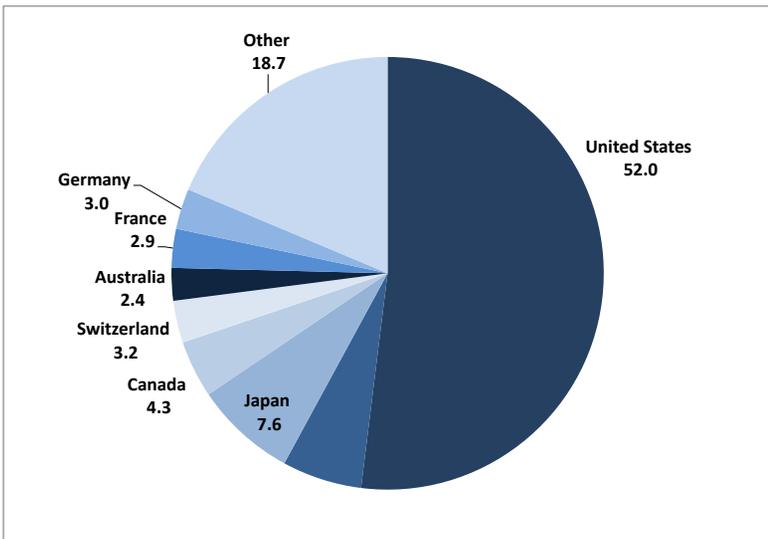
### Global Public Equity - by Industry Sector



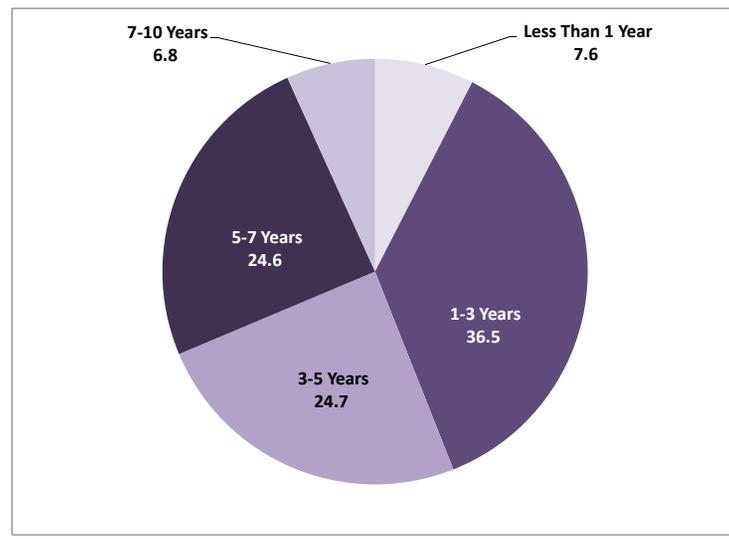
### Core Fixed Income - by Type



### Global Public Equity - by Geography



### Inflation-Linked Bonds - by Duration

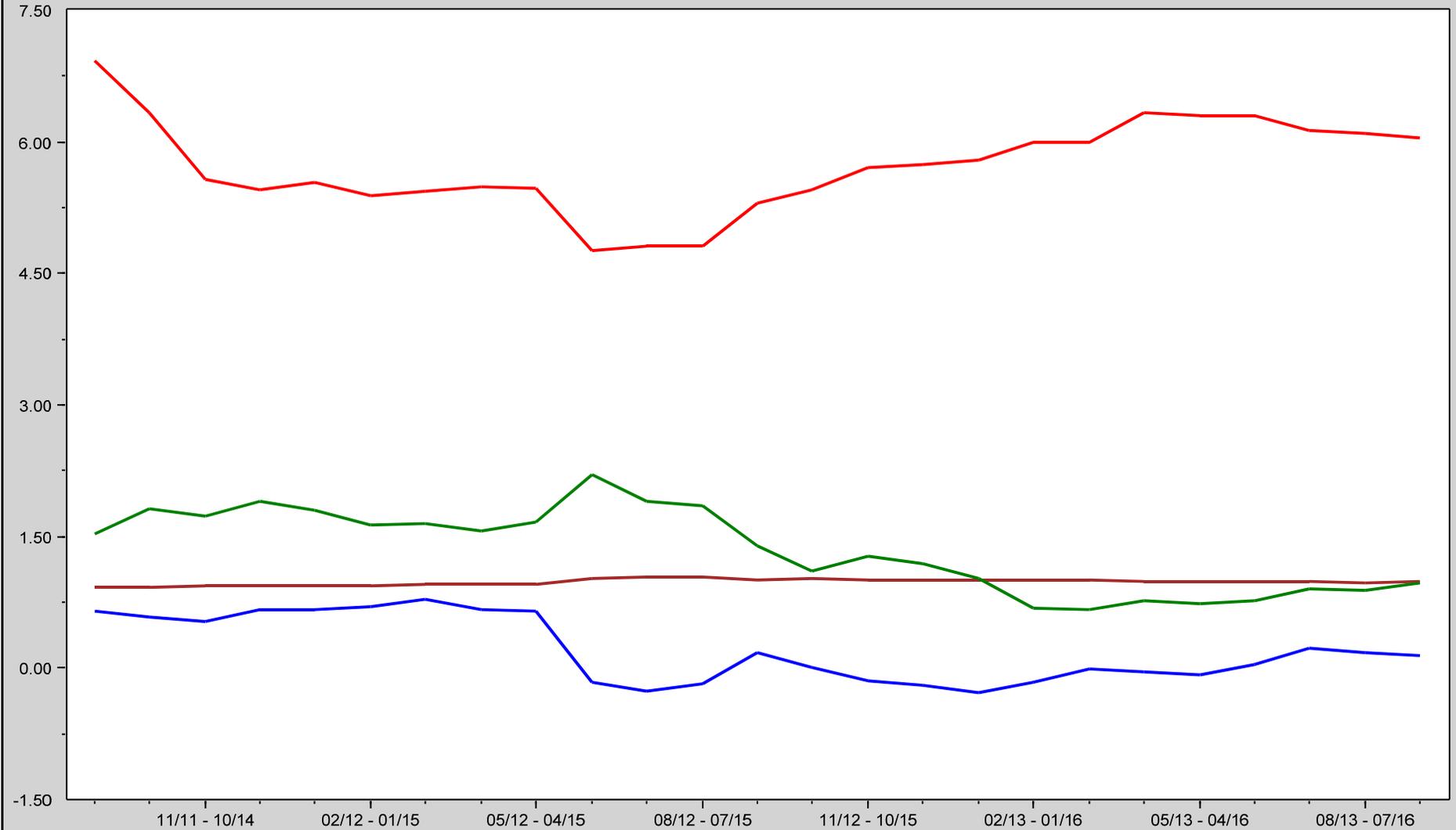


## Section V.

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### Risk Overview

**Historical Risk - Three Year Rolling Periods**  
**TOTAL PLAN**  
**5 Years Ending August 31, 2016**  
**Trend**



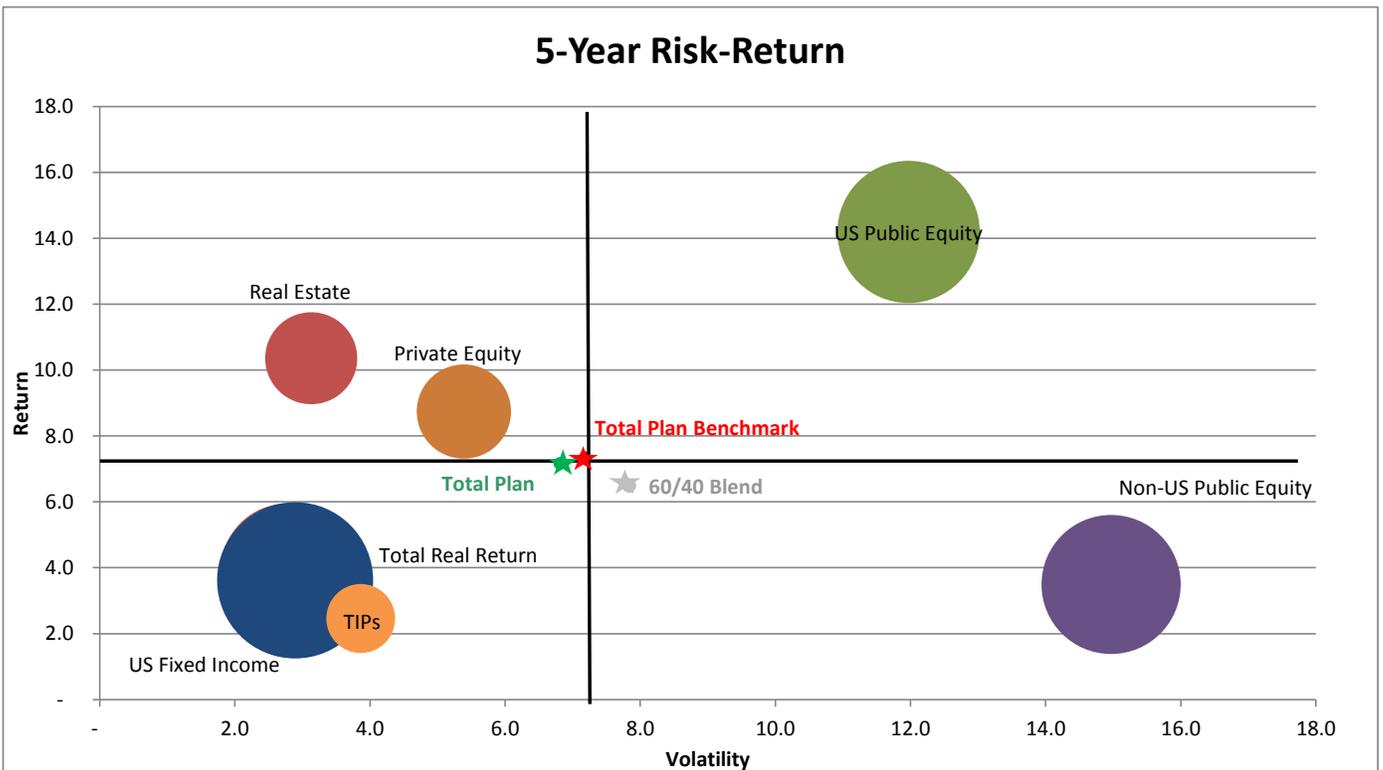
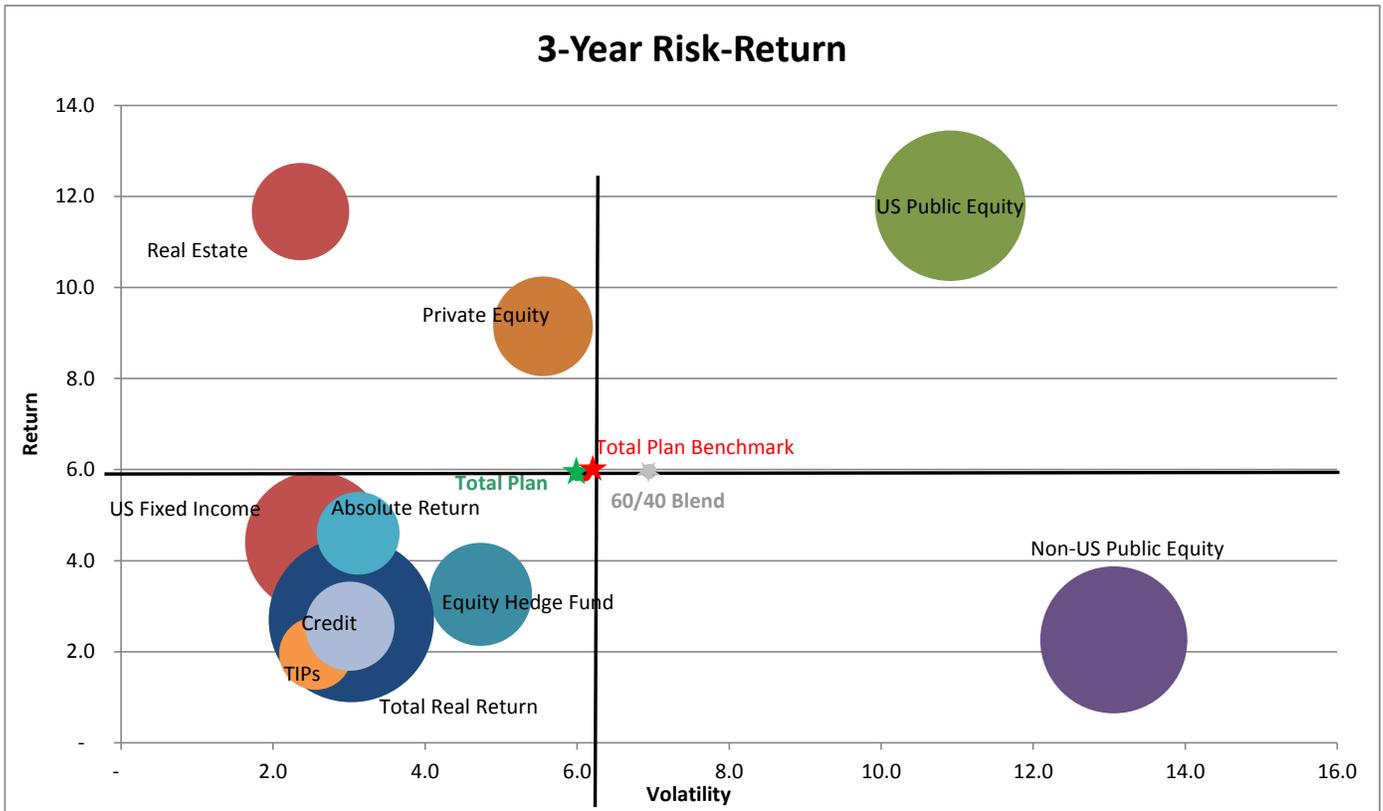
Market Proxy: Total Plan Benchmark; Risk-Free Proxy: BofA Merrill Lynch 3 Month US Treasury Bill G001

— Ann Std Dev      — Ann Sharpe Ratio      — Ann Alpha      — Beta

# ERSRI Portfolio

% - as of August 31, 2016

Bubble-Size Scaled based on Current Allocations



**3 Years Ending August 31, 2016  
Correlation**

Ann Return

	US Pub EQ	Non-US Pub EQ	Eq HF	PE	FI	RE	RR HF	TIPS	Cash	Overlay	Total
<b>US Pub</b>	1.00										
<b>Non-US P</b>	0.86	1.00									
<b>Eq HF</b>	0.61	0.51	1.00								
<b>PE</b>	0.04	0.00	0.05	1.00							
<b>FI</b>	0.04	0.13	-0.15	-0.21	1.00						
<b>RE</b>	0.05	0.11	-0.03	-0.26	0.37	1.00					
<b>RR HF</b>	0.36	0.33	0.67	-0.05	0.16	-0.13	1.00				
<b>TIPS</b>	0.03	0.25	-0.24	-0.13	0.86	0.31	0.09	1.00			
<b>Cash</b>	0.11	0.05	0.03	-0.10	-0.14	-0.25	0.15	-0.26	1.00		
<b>Overlay</b>	-0.37	-0.18	-0.43	-0.16	0.05	0.08	-0.31	0.04	0.03	1.00	
<b>Total</b>	0.95	0.96	0.61	0.06	0.16	0.10	0.41	0.21	0.07	-0.31	1.00
<b>Tot BM</b>	0.94	0.97	0.57	0.01	0.14	0.08	0.37	0.19	0.07	-0.26	0.99

**5 Years Ending August 31, 2016  
Correlation**

Ann Return

	US Pub Eq	Non-US Pub Eq	Eq HF	PE	FI	RE	RR HF	TIPS	Cash	Overlay	Total
<b>US Pub</b>	1.00										
<b>Non-US P</b>	0.87	1.00									
<b>Eq HF</b>	---	---	---								
<b>PE</b>	0.13	0.13	---	1.00							
<b>FI</b>	0.11	0.26	---	-0.22	1.00						
<b>RE</b>	0.12	0.20	---	-0.10	0.34	1.00					
<b>RR HF</b>	---	---	---	---	---	---	---				
<b>TIPS</b>	0.07	0.23	---	-0.14	0.78	0.22	---	1.00			
<b>Cash</b>	0.06	0.03	---	-0.09	-0.07	-0.04	---	-0.15	1.00		
<b>Overlay</b>	0.39	0.46	---	0.08	0.05	0.12	---	0.10	-0.07	1.00	
<b>Total</b>	0.95	0.97	---	0.16	0.26	0.19	---	0.23	0.03	0.43	1.00
<b>Tot BM</b>	0.95	0.97	---	0.12	0.24	0.17	---	0.19	0.03	0.47	0.99

## Risk Exposures

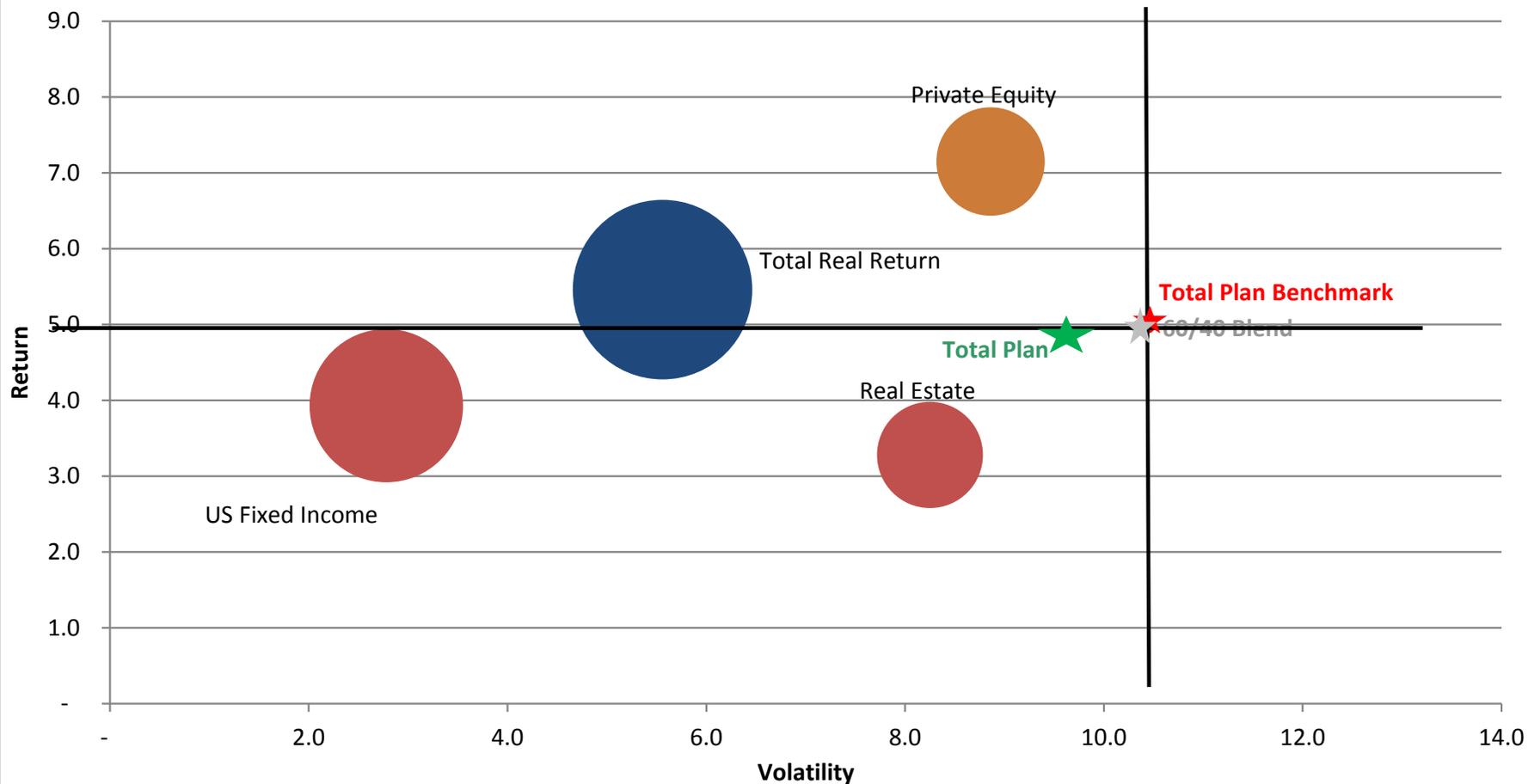
### 3 Years Ending August 31, 2016

	Annualized Return	Ann Std Dev	Beta (ACWI)	Beta (BC AGG)	Beta (GSCI)	Beta (CPI)
<b>US Public Equity</b>	11.81	10.91	0.91	-0.24	0.14	0.76
<b>Non-US Public Equity</b>	2.26	13.06	1.10	0.10	0.28	1.95
<b>Equity Hedge Funds</b>	3.26	4.74	0.24	-0.40	0.04	0.38
<b>Private Equity</b>	9.15	5.56	0.01	-0.43	0.08	1.58
<b>Traditional Fixed Income</b>	4.43	2.56	0.02	0.98	-0.02	-0.19
<b>Real Estate</b>	11.67	2.36	0.02	0.34	-0.02	-0.46
<b>Real Return Hedge Funds</b>	4.02	2.61	0.08	0.12	-0.01	-0.00
<b>Inflation-Linked Bonds</b>	1.96	2.56	0.03	0.83	0.01	0.28
<b>Cash</b>	0.66	0.37	0.00	-0.03	-0.00	-0.04
<b>Russell Overlay Fd</b>	-0.01	0.09	-0.00	-0.00	-0.00	-0.02
<b>TOTAL PLAN</b>	5.89	6.03	0.52	0.10	0.12	0.83

## 5 Years Ending August 31, 2016 Comparison

	TOTAL PLAN	Total Plan Benchmark	60/40 Blend
Ann Return	7.17	7.35	6.49
Ann Ex Ret vs Mkt	-0.17		
Ann Tracking Error	0.99		
Ann Std Dev	6.81	7.19	7.84
Beta	0.94		
R-Squared	0.98		
Ann Alpha	0.25		
Ann Sharpe Ratio	1.04	1.01	0.83

# 10-Year Risk-Return



**10 Years Ending August 31, 2016  
Correlation**

**Ann Return**

	US Pub Eq	Non-US Pub Eq	Eq HF	PE	FI	RE	RR HF	GILBS	Cash	Overlay	Total
US Pub Eq	---										
Non-US P	---	---									
Eq HF	---	---	---								
PE	---	---	---	1.00							
FI	---	---	---	-0.01	1.00						
RE	---	---	---	0.30	-0.17	1.00					
RR HF	---	---	---	---	---	---	---				
GILBS	---	---	---	---	---	---	---	---			
Cash	---	---	---	0.12	0.05	0.14	---	---	1.00		
Overlay	---	---	---	---	---	---	---	---	---	---	
Total	---	---	---	0.22	0.46	0.01	---	---	0.03	---	1.00
Tot BM	---	---	---	0.15	0.46	-0.02	---	---	0.03	---	0.99

## Section VI.

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### Performance Overview

TOTAL NET OF FEES

8/31/2016

Account Name Benchmark Name	Market Value	% of Total	Month	YTD	Fiscal YTD	Annualized				ITD	Inception Date
						1 Year	3 Years	5 Years	10 Years		
SSGA R3000 INDEX <i>Russell 3000 Index</i>	1,215,595,599	16	0.26 0.26	8.11 8.01	4.25 4.23	11.59 11.44	11.82 11.74			13.44 13.38	10/1/2012 10/1/2012
<b>US Public Equity</b> <i>Russell 3000 Index</i>	<b>1,215,595,674</b>	<b>16</b>	<b>0.26</b> 0.26	<b>8.11</b> 8.01	<b>4.25</b> 4.23	<b>11.59</b> 11.44	<b>11.81</b> 11.74	<b>14.19</b> 14.46		<b>6.91</b> 6.91	<b>8/1/2007</b> 8/1/2007
SSGA MSCI EAFE <i>MSCI EAFE Net Dividend Index</i>	720,270,341	9	0.08 0.07	0.72 0.49	5.14 5.14	0.16 -0.12	2.72 2.47			6.57 6.30	9/1/2012 9/1/2012
SSGA MSCI CANADA <i>MSCI Canada Net Dividend Index</i>	98,167,908	1	0.35 0.32	19.71 19.32	3.72 3.70	8.44 7.88	0.35 -0.25			0.94 0.31	9/1/2012 9/1/2012
SSGA MSCI EM <i>MSCI Emerging Markets Net Dividend Index</i>	341,767,640	4	2.47 2.49	14.24 14.55	7.58 7.64	11.53 11.83	0.92 1.12			0.76 0.97	9/1/2012 9/1/2012
<b>Non-US Public Equity</b> <i>Total International Equity BM</i>	<b>1,160,260,639</b>	<b>15</b>	<b>0.79</b> 0.63	<b>5.13</b> 4.53	<b>5.85</b> 5.61	<b>3.47</b> 2.92	<b>2.26</b> 2.03	<b>3.49</b> 3.55		<b>7.82</b> 6.95	<b>5/1/2009</b> 5/1/2009
QVM Tilt <i>MSCI World Net Dividend Index</i>	1,054,140,613	14	-0.01 0.08	4.53 4.99	3.66 4.31					10.60 10.77	10/1/2015 10/1/2015
<b>Global Public Equity</b> <i>MSCI All Country World Net Index</i>	<b>3,429,996,926</b>	<b>45</b>	<b>0.36</b> 0.34	<b>6.28</b> 5.95	<b>4.63</b> 4.66	<b>7.29</b> 7.24	<b>6.93</b> 6.74	<b>9.39</b> 8.32	<b>5.10</b> 4.40	<b>3.86</b>	<b>7/1/2000</b> 7/1/2000
Private Equity <i>ILPA All Fds Custom BM 1Q Lag</i>	532,804,388	7	0.91 0.91	5.99 3.10	1.34 1.37	2.77 6.49	9.15 11.78	8.74 15.07	7.15 9.29	9.07	2/1/1989 2/1/1989
<b>Equity Hedge Funds</b> <i>HFRI Equity Hedge (Total) Index</i>	<b>567,984,579</b>	<b>7</b>	<b>1.34</b> 0.95	<b>-1.62</b> 3.06	<b>2.67</b> 3.52	<b>-3.40</b> 2.83	<b>3.26</b> 3.75			<b>5.29</b> 4.52	<b>11/1/2011</b> 11/1/2011
<b>Total Equity</b>	<b>4,530,785,893</b>	<b>59</b>	<b>0.54</b>	<b>5.15</b>	<b>3.98</b>	<b>5.27</b>	<b>6.69</b>	<b>8.75</b>	<b>5.11</b>	<b>8.83</b>	<b>6/1/1996</b>
MACKAY SHIELDS <i>Barclays U.S. Aggregate Bond Index</i>	527,684,283	7	0.01 -0.11	5.81 5.86	0.62 0.52	5.83 5.97	4.42 4.37			2.72 2.64	11/1/2012 11/1/2012
PYRAMIS GLOBAL ADV <i>Barclays U.S. Aggregate Bond Index</i>	540,539,899	7	0.04 -0.11	6.45 5.86	0.92 0.52	6.38 5.97	4.43 4.37			2.69 2.64	11/1/2012 11/1/2012
<b>Traditional Fixed Income</b> <i>Barclays U.S. Aggregate Bond Index</i>	<b>1,068,226,242</b>	<b>14</b>	<b>0.03</b> -0.11	<b>6.14</b> 5.86	<b>0.77</b> 0.52	<b>6.11</b> 5.97	<b>4.43</b> 4.37	<b>3.93</b> 3.24	<b>4.89</b> 4.89	<b>5.55</b> 5.43	<b>7/1/2000</b> 7/1/2000



Total Performance Summary

Report ID: IPM0005

Reporting Currency: USD

TOTAL NET OF FEES

8/31/2016

Account Name Benchmark Name	Market Value	% of Total	Month	YTD	Fiscal YTD	Annualized				ITD	Inception Date
						1 Year	3 Years	5 Years	10 Years		
<b>Real Return Hedge Funds</b>	<b>496,127,336</b>	<b>6</b>	<b>0.75</b>	<b>2.98</b>	<b>1.39</b>	<b>2.06</b>	<b>4.02</b>			<b>4.35</b>	<b>11/1/2011</b>
<i>HFRI Fund of Funds Composite Index</i>			<i>0.49</i>	<i>-0.59</i>	<i>2.04</i>	<i>-1.69</i>	<i>2.51</i>			<i>2.98</i>	<i>11/1/2011</i>
PIMCO	215,464,221	3	0.42	5.36	1.74	3.92	3.20			2.94	5/1/2013
<i>30%BoA1-3BB-BHY/70% JPMB/BLLI</i>			<i>0.78</i>	<i>6.71</i>	<i>2.14</i>	<i>5.06</i>	<i>4.02</i>			<i>3.88</i>	<i>5/1/2013</i>
WAMCO	209,119,152	3	0.69	7.28	1.95	2.50	1.93			2.06	4/1/2013
<i>30% BoA 1-3 BB-B HY/70% CS LLI</i>			<i>0.87</i>	<i>7.12</i>	<i>2.30</i>	<i>4.72</i>	<i>3.73</i>			<i>3.73</i>	<i>4/1/2013</i>
<b>Credit Aggregate</b>	<b>424,583,372</b>	<b>6</b>	<b>0.55</b>	<b>6.30</b>	<b>1.84</b>	<b>3.22</b>	<b>2.56</b>			<b>2.42</b>	<b>5/1/2013</b>
<i>Credit Aggregate</i>			<i>0.83</i>	<i>6.92</i>	<i>2.22</i>	<i>4.89</i>	<i>3.92</i>			<i>3.78</i>	<i>5/1/2013</i>
BROWN BROTHERS HARR	284,038,096	4	-0.48	4.76	-0.17	3.85	1.96			0.71	11/1/2012
<i>BBH Inflation-Linked Custom BM</i>			<i>-0.51</i>	<i>4.77</i>	<i>-0.19</i>	<i>3.77</i>	<i>2.17</i>			<i>0.67</i>	<i>11/1/2012</i>
<b>Inflation-Linked Bonds</b>	<b>284,038,096</b>	<b>4</b>	<b>-0.48</b>	<b>4.76</b>	<b>-0.17</b>	<b>3.85</b>	<b>1.96</b>	<b>2.46</b>		<b>4.34</b>	<b>11/1/2009</b>
<i>Total Inflation Linked Custom</i>			<i>-0.51</i>	<i>4.77</i>	<i>-0.19</i>	<i>3.77</i>	<i>2.17</i>	<i>2.41</i>		<i>4.31</i>	<i>11/1/2009</i>
Harvest Fund Advisor	174,891,863	2	1.29	16.46	2.15	-6.29				-12.30	1/1/2015
<i>Alerian MLP Index</i>			<i>-1.32</i>	<i>13.83</i>	<i>-0.77</i>	<i>-6.23</i>				<i>-14.69</i>	<i>1/1/2015</i>
Priv Listed Infrastructure	83,361,535	1	-0.38	6.78	-0.16	7.68				2.06	3/1/2015
<b>Total Real Return</b>	<b>1,463,002,202</b>	<b>19</b>	<b>0.45</b>	<b>6.18</b>	<b>1.21</b>	<b>3.21</b>	<b>2.71</b>	<b>3.62</b>	<b>5.47</b>	<b>5.43</b>	<b>6/1/2004</b>
Real Estate	510,478,128	7	0.50	6.77	1.67	11.63	11.67	10.36	3.28	2.86	1/1/2005
<i>NFI-ODCE Index</i>			<i>0.50</i>	<i>6.87</i>	<i>1.67</i>	<i>14.50</i>	<i>13.07</i>	<i>13.02</i>	<i>8.66</i>	<i>9.97</i>	<i>1/1/2005</i>
ERSRI CASH	78,115,637	1	0.10	0.84	0.20	1.00	0.68	0.46	2.03	13.15	7/1/2000
<i>BofA Merrill Lynch 3 Month US Treasury Bill GOO1</i>			<i>0.02</i>	<i>0.19</i>	<i>0.05</i>	<i>0.23</i>	<i>0.10</i>	<i>0.09</i>	<i>0.96</i>	<i>1.70</i>	<i>7/1/2000</i>
<b>Total Cash</b>	<b>82,927,791</b>	<b>1</b>	<b>0.10</b>	<b>0.80</b>	<b>0.19</b>	<b>0.95</b>	<b>0.66</b>	<b>0.46</b>	<b>1.48</b>	<b>2.39</b>	<b>4/1/2004</b>
<b>Russell Overlay Fd</b>	<b>18,480,965</b>	<b>0</b>	<b>0.00</b>	<b>0.05</b>	<b>0.05</b>	<b>0.08</b>	<b>-0.01</b>	<b>0.10</b>		<b>-0.06</b>	<b>9/1/2008</b>
<b>TOTAL PLAN</b>	<b>7,674,319,357</b>	<b>100</b>	<b>0.44</b>	<b>5.57</b>	<b>2.83</b>	<b>5.42</b>	<b>5.89</b>	<b>7.17</b>	<b>4.87</b>	<b>4.62</b>	<b>7/1/2000</b>
<i>Total Plan Benchmark</i>			<i>0.33</i>	<i>5.15</i>	<i>2.85</i>	<i>5.93</i>	<i>5.94</i>	<i>7.35</i>	<i>4.99</i>		<i>7/1/2000</i>
<i>60/40 Blend</i>			<i>0.16</i>	<i>6.06</i>	<i>3.00</i>	<i>6.98</i>	<i>5.96</i>	<i>6.49</i>	<i>4.97</i>		<i>7/1/2000</i>
<b>Total Plan ex PE,RE &amp; Priv Inf</b>	<b>6,547,675,306</b>	<b>85</b>	<b>0.41</b>	<b>5.46</b>	<b>3.08</b>	<b>5.24</b>	<b>5.28</b>	<b>6.59</b>	<b>4.62</b>	<b>6.15</b>	<b>4/1/1996</b>
<i>Total Plan BM ex PE RE</i>			<i>0.28</i>	<i>5.20</i>	<i>3.03</i>	<i>5.35</i>	<i>5.23</i>	<i>6.79</i>	<i>4.60</i>		<i>4/1/1996</i>

TOTAL NET OF FEES

8/31/2016

Account Name Benchmark Name	Market Value	% of Total	Month	Cumulative				Inception Date		
				7/1/2016 - 7/31/2016	6/1/2016 - 6/30/2016	YTD	2015		2014	2013
SSGA R3000 INDEX <i>Russell 3000 Index</i>	1,215,595,599	16	0.26 0.26	3.97 3.97	0.19 0.21	8.11 8.01	0.60 0.48	12.59 12.56	33.49 33.55	10/1/2012 10/1/2012
<b>US Public Equity</b> <i>Russell 3000 Index</i>	<b>1,215,595,674</b>	<b>16</b>	<b>0.26</b> 0.26	<b>3.97</b> 3.97	<b>0.19</b> 0.21	<b>8.11</b> 8.01	<b>0.60</b> 0.48	<b>12.57</b> 12.56	<b>33.48</b> 33.55	<b>8/1/2007</b> 8/1/2007
SSGA MSCI EAFE <i>MSCI EAFE Net Dividend Index</i>	720,270,341	9	0.08 0.07	5.06 5.07	-3.33 -3.36	0.72 0.49	-0.59 -0.81	-4.64 -4.90	23.08 22.78	9/1/2012 9/1/2012
SSGA MSCI CANADA <i>MSCI Canada Net Dividend Index</i>	98,167,908	1	0.35 0.32	3.36 3.38	0.46 0.37	19.71 19.32	-23.70 -24.16	2.17 1.51	6.35 5.63	9/1/2012 9/1/2012
SSGA MSCI EM <i>MSCI Emerging Markets Net Dividend Index</i>	341,767,640	4	2.47 2.49	4.99 5.03	3.91 4.00	14.24 14.55	-15.16 -14.92	-2.34 -2.19	-2.81 -2.60	9/1/2012 9/1/2012
<b>Non-US Public Equity</b> <i>Total International Equity BM</i>	<b>1,160,260,639</b>	<b>15</b>	<b>0.79</b> 0.63	<b>5.02</b> 4.95	<b>-1.19</b> -1.53	<b>5.13</b> 4.53	<b>-5.77</b> -5.66	<b>-3.63</b> -3.87	<b>15.18</b> 15.29	<b>5/1/2009</b> 5/1/2009
QVM Tilt <i>MSCI World Net Dividend Index</i>	1,054,140,613	14	-0.01 0.08	3.67 4.22	-0.79 -1.12	4.53 4.99				10/1/2015 10/1/2015
<b>Global Public Equity</b> <i>MSCI All Country World Net Index</i>	<b>3,429,996,926</b>	<b>45</b>	<b>0.36</b> 0.34	<b>4.26</b> 4.31	<b>-0.55</b> -0.61	<b>6.28</b> 5.95	<b>-2.48</b> -2.36	<b>4.35</b> 4.16	<b>23.90</b> 22.80	<b>7/1/2000</b> 7/1/2000
Private Equity <i>ILPA All Fds Custom BM 1Q Lag</i>	532,804,388	7	0.91 0.91	0.43 0.45	0.01 0.41	5.99 3.10	7.08 7.14	8.02 16.40	14.86 25.14	2/1/1989 2/1/1989
<b>Equity Hedge Funds</b> <i>HFRI Equity Hedge (Total) Index</i>	<b>567,984,579</b>	<b>7</b>	<b>1.34</b> 0.95	<b>1.31</b> 2.54	<b>-0.85</b> -0.42	<b>-1.62</b> 3.06	<b>1.27</b> -0.97	<b>2.64</b> 1.81	<b>17.11</b> 14.28	<b>11/1/2011</b> 11/1/2011
<b>Total Equity</b>	<b>4,530,785,893</b>	<b>59</b>	<b>0.54</b>	<b>3.42</b>	<b>-0.52</b>	<b>5.15</b>	<b>-0.95</b>	<b>4.51</b>	<b>21.95</b>	<b>6/1/1996</b>
MACKAY SHIELDS <i>Barclays U.S. Aggregate Bond Index</i>	527,684,283	7	0.01 -0.11	0.60 0.63	1.90 1.80	5.81 5.86	0.48 0.55	6.00 5.97	-1.79 -2.02	11/1/2012 11/1/2012
PYRAMIS GLOBAL ADV <i>Barclays U.S. Aggregate Bond Index</i>	540,539,899	7	0.04 -0.11	0.88 0.63	1.77 1.80	6.45 5.86	0.01 0.55	5.83 5.97	-1.93 -2.02	11/1/2012 11/1/2012
<b>Traditional Fixed Income</b> <i>Barclays U.S. Aggregate Bond Index</i>	<b>1,068,226,242</b>	<b>14</b>	<b>0.03</b> -0.11	<b>0.75</b> 0.63	<b>1.84</b> 1.80	<b>6.14</b> 5.86	<b>0.25</b> 0.55	<b>5.91</b> 5.97	<b>-1.86</b> -2.02	<b>7/1/2000</b> 7/1/2000

TOTAL NET OF FEES

8/31/2016

Account Name Benchmark Name	Market Value	% of Total	Month	Cumulative				Inception Date		
				7/1/2016 - 7/31/2016	6/1/2016 - 6/30/2016	YTD	2015		2014	2013
<b>Real Return Hedge Funds</b>	<b>496,127,336</b>	<b>6</b>	<b>0.75</b>	<b>0.63</b>	<b>0.39</b>	<b>2.98</b>	<b>0.86</b>	<b>4.70</b>	<b>6.96</b>	<b>11/1/2011</b>
<i>HFRI Fund of Funds Composite Index</i>			<i>0.49</i>	<i>1.54</i>	<i>-0.46</i>	<i>-0.59</i>	<i>-0.27</i>	<i>3.37</i>	<i>8.96</i>	<i>11/1/2011</i>
PIMCO	215,464,221	3	0.42	1.32	-0.16	5.36	1.13	1.22		5/1/2013
<i>30%BoA1-3BB-BHY/70% JPMB/BLLI</i>			<i>0.78</i>	<i>1.34</i>	<i>0.10</i>	<i>6.71</i>	<i>1.00</i>	<i>2.11</i>		<i>5/1/2013</i>
WAMCO	209,119,152	3	0.69	1.25	0.29	7.28	-3.69	0.10		4/1/2013
<i>30% BoA 1-3 BB-B HY/70% CS LLI</i>			<i>0.87</i>	<i>1.41</i>	<i>0.22</i>	<i>7.12</i>	<i>-0.18</i>	<i>2.03</i>		<i>4/1/2013</i>
<b>Credit Aggregate</b>	<b>424,583,372</b>	<b>6</b>	<b>0.55</b>	<b>1.28</b>	<b>0.06</b>	<b>6.30</b>	<b>-1.29</b>	<b>0.66</b>		<b>5/1/2013</b>
<i>Credit Aggregate</i>			<i>0.83</i>	<i>1.38</i>	<i>0.16</i>	<i>6.92</i>	<i>0.49</i>	<i>2.11</i>		<i>5/1/2013</i>
BROWN BROTHERS HARR	284,038,096	4	-0.48	0.31	1.65	4.76	-0.26	1.72	-5.03	11/1/2012
<i>BBH Inflation-Linked Custom BM</i>			<i>-0.51</i>	<i>0.32</i>	<i>1.63</i>	<i>4.77</i>	<i>-0.15</i>	<i>2.04</i>	<i>-5.13</i>	<i>11/1/2012</i>
<b>Inflation-Linked Bonds</b>	<b>284,038,096</b>	<b>4</b>	<b>-0.48</b>	<b>0.31</b>	<b>1.65</b>	<b>4.76</b>	<b>-0.26</b>	<b>1.72</b>	<b>-5.03</b>	<b>11/1/2009</b>
<i>Total Inflation Linked Custom</i>			<i>-0.51</i>	<i>0.32</i>	<i>1.63</i>	<i>4.77</i>	<i>-0.15</i>	<i>2.04</i>	<i>-5.13</i>	<i>11/1/2009</i>
Harvest Fund Advisor	174,891,863	2	1.29	0.85	5.17	16.46	-31.01			1/1/2015
<i>Alerian MLP Index</i>			<i>-1.32</i>	<i>0.56</i>	<i>5.13</i>	<i>13.83</i>	<i>-32.59</i>			<i>1/1/2015</i>
Priv Listed Infrastructure	83,361,535	1	-0.38	0.23	0.03	6.78				3/1/2015
<i>CPI + 4%</i>				<i>0.17</i>	<i>0.65</i>					<i>3/1/2015</i>
<b>Total Real Return</b>	<b>1,463,002,202</b>	<b>19</b>	<b>0.45</b>	<b>0.76</b>	<b>1.06</b>	<b>6.18</b>	<b>-2.76</b>	<b>2.74</b>	<b>3.39</b>	<b>6/1/2004</b>
Real Estate	510,478,128	7	0.50	1.16	0.36	6.77	14.22	10.90	5.65	1/1/2005
<i>NFI-ODCE Index</i>			<i>0.50</i>	<i>1.16</i>	<i>1.95</i>	<i>6.87</i>	<i>13.86</i>	<i>12.26</i>	<i>12.00</i>	<i>1/1/2005</i>
ERSRI CASH	78,115,637	1	0.10	0.10	0.03	0.84	0.40	0.75	0.14	7/1/2000
<i>BofA Merrill Lynch 3 Month US Treasury Bill GOO1</i>			<i>0.02</i>	<i>0.03</i>	<i>0.04</i>	<i>0.19</i>	<i>0.05</i>	<i>0.03</i>	<i>0.07</i>	<i>7/1/2000</i>
<b>Total Cash</b>	<b>82,927,791</b>	<b>1</b>	<b>0.10</b>	<b>0.10</b>	<b>0.03</b>	<b>0.80</b>	<b>0.38</b>	<b>0.74</b>	<b>0.13</b>	<b>4/1/2004</b>
<b>Russell Overlay Fd</b>	<b>18,480,965</b>	<b>0</b>	<b>0.00</b>	<b>0.05</b>	<b>-0.02</b>	<b>0.05</b>	<b>0.00</b>	<b>-0.02</b>	<b>0.17</b>	<b>9/1/2008</b>
<b>TOTAL PLAN</b>	<b>7,674,319,357</b>	<b>100</b>	<b>0.44</b>	<b>2.37</b>	<b>0.17</b>	<b>5.57</b>	<b>-0.28</b>	<b>4.52</b>	<b>14.06</b>	<b>7/1/2000</b>
<i>Total Plan Benchmark</i>			<i>0.33</i>	<i>2.50</i>	<i>0.21</i>	<i>5.15</i>	<i>-0.25</i>	<i>5.05</i>	<i>14.47</i>	<i>7/1/2000</i>
<i>60/40 Blend</i>			<i>0.16</i>	<i>2.84</i>	<i>0.36</i>	<i>6.06</i>	<i>-0.98</i>	<i>4.96</i>	<i>12.32</i>	<i>7/1/2000</i>
<b>Total Plan ex Overlay</b>	<b>7,655,838,392</b>	<b>100</b>	<b>0.44</b>	<b>2.33</b>	<b>0.19</b>	<b>5.52</b>	<b>-0.28</b>	<b>4.54</b>	<b>13.87</b>	<b>8/1/2008</b>
<i>Total Plan Benchmark</i>			<i>0.33</i>	<i>2.50</i>	<i>0.21</i>	<i>5.15</i>	<i>-0.25</i>	<i>5.05</i>	<i>14.47</i>	<i>8/1/2008</i>



# Total Performance Summary

Report ID: IPM0005

Reporting Currency: USD

## TOTAL NET OF FEES

8/31/2016

Account Name Benchmark Name	Market Value	% of Total	Month	Cumulative				Inception Date		
				7/1/2016 - 7/31/2016	6/1/2016 - 6/30/2016	YTD	2015		2014	2013
<b>Total Plan ex PE,RE &amp; Priv Inf</b>	<b>6,547,675,306</b>	<b>85</b>	<b>0.41</b>	<b>2.66</b>	<b>0.17</b>	<b>5.46</b>	<b>-1.68</b>	<b>3.98</b>	<b>14.33</b>	<b>4/1/1996</b>
<i>Total Plan BM ex PE RE</i>			<i>0.28</i>	<i>2.75</i>	<i>0.10</i>	<i>5.20</i>	<i>-1.64</i>	<i>3.90</i>	<i>14.57</i>	<i>4/1/1996</i>

END NOTES

8/31/2016

1 RI6G23000000 TOTAL PLAN

Month - Current Month

Cumulative Months - Prior Month and Second Prior Month

Monthly Reporting for Private Equity and Real Estate skew performance on an actual and benchmark basis due to nature of valuations

2014, 2013, 2012 - Calendar Years

RI6G23000000 TOTAL PLAN

The current composition of the Total Plan Benchmark is as follows:

15.0% Barclays U.S. Aggregate Bond Index

44.5% MSCI All Country World Net Index

7.0% HFRI Fund of Funds Composite Index

3.0% BofA Merrill Lynch 3 Month US Treasury Bill

8.0% HFRI Equity Hedge (Total) Index

5.0% NFI-ODCE Index

4.0% Barclays U.S. Treasury Inflation Notes: 1-10 Year Index

5.0% Credit Aggregate Custom: 30% BoA1-3BB-B HY/35%CSInstLLI/35% JPM BB/B Leveraged Loan Index

7.0% ILPA All Funds Index

1.5% Alerian MLP Total Return Index

## Section VII.

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### Hedge Fund Returns

**Employees' Retirement System of the State of Rhode Island**

Hedge Fund Portfolio  
 Portfolio Performance Summary  
 Estimated as of August 31, 2016

Fund	Market Value	Actual %	Returns								Std Dev	Sharpe Ratio	Incep Date
			Aug	QTD	YTD	FYTD	1 Year	3 Year	5 Year	Incep			
<b>Global Equities</b>													
Ascend ERSRI Fund LP	68,671,886	6.4%	0.70%	0.83%	-6.30%	0.83%	-6.28%	2.45%	-	2.83%	3.41%	0.72	Nov-11
Davidson Kempner Institutional Partners, L.P.	78,685,303	7.4%	0.63%	1.47%	4.28%	1.47%	4.22%	4.28%	-	5.77%	2.09%	2.52	Nov-11
Elliott Associates, L.P.	91,188,690	8.6%	1.12%	2.07%	7.51%	2.07%	7.03%	8.18%	-	9.05%	3.82%	2.20	Nov-11
ESG Cross Border Equity Fund LP	40,841,093	3.8%	-0.20%	-0.65%	-7.05%	-0.65%	-6.20%	-	-	-8.57%	8.09%	-1.12	Jun-14
Indus Asia Pacific Fund, LP	304,794	0.0%	0.00%	1.55%	-32.81%	1.55%	-52.82%	-26.86%	-	-16.91%	17.97%	-0.94	Jan-12
Luxor Capital Partners, LP - Holdback	1,453,695	0.1%	0.00%	0.00%	-	0.00%	-	-	-	0.00%	0.00%	-	Jul-16
Luxor Capital Partners, LP - Liquidating SPV	4,053,395	0.4%	-2.73%	-4.10%	-	-4.10%	-	-	-	-4.10%	3.23%	-	Jul-16
PFM Diversified Fund, L.P.	77,167,243	7.2%	0.61%	2.89%	-7.28%	2.89%	-8.18%	4.92%	-	5.79%	9.10%	0.62	Mar-12
Samlyn Onshore Fund, L.P.	105,269,012	9.9%	1.78%	3.16%	-1.53%	3.16%	-5.75%	5.61%	-	7.44%	6.55%	1.07	Jan-12
Viking Global Equities, LP	101,122,344	9.5%	1.90%	4.95%	-1.18%	4.95%	-0.29%	10.74%	-	11.62%	7.58%	1.44	Dec-11
<b>Total Global Equities</b>	<b>568,757,454</b>	<b>53.4%</b>	<b>1.06%</b>	<b>2.36%</b>	<b>-1.59%</b>	<b>2.36%</b>	<b>-3.37%</b>	<b>3.30%</b>	<b>-</b>	<b>5.25%</b>	<b>4.46%</b>	<b>1.09</b>	<b>Nov-11</b>
MSCI AC World Index Free - Net			0.34%	4.66%	5.95%	4.66%	7.24%	6.74%	-	8.56%	11.65%	0.73	Nov-11
Russell 3000 Index (DRI)			0.26%	4.23%	8.01%	4.23%	11.44%	11.74%	-	14.32%	10.62%	1.28	Nov-11
HFRI Equity Hedge (Total) Index			1.25%	3.83%	3.39%	3.83%	3.16%	3.86%	-	4.59%	6.35%	0.68	Nov-11
<b>Real Return</b>													
Brevan Howard LP	76,390,896	7.2%	-0.22%	-1.39%	-2.54%	-1.39%	-5.37%	-1.38%	-	0.38%	5.22%	0.03	Nov-11
Brigade Leveraged Capital Structures Fund LP	59,081,419	5.5%	2.46%	4.65%	18.48%	4.65%	6.66%	3.25%	-	3.78%	5.84%	0.60	Mar-12
Capula Global Relative Value Fund Ltd.	65,278,650	6.1%	0.49%	1.01%	4.09%	1.01%	5.98%	7.24%	-	5.77%	1.84%	2.85	Dec-11
Claren Road Credit Fund, Ltd.	6,136,184	0.6%	-0.28%	-0.57%	-0.73%	-0.57%	-1.26%	-5.55%	-	-4.79%	7.09%	-0.71	Apr-13
DE Shaw Composite Fund LLC	94,642,705	8.9%	1.00%	2.63%	5.90%	2.63%	9.99%	13.88%	-	14.11%	4.25%	3.05	Nov-11
Graham Absolute Return Trading Ltd.	55,507,791	5.2%	-0.58%	-0.38%	0.23%	-0.38%	-0.27%	2.16%	-	2.26%	4.39%	0.45	Jan-12
OZ Domestic Partners II, L.P.	102,422,471	9.6%	2.05%	2.67%	0.35%	2.67%	-1.87%	3.84%	-	6.66%	4.75%	1.30	Nov-11
Winton Futures Fund Limited	36,669,431	3.4%	-1.56%	-0.42%	-0.52%	-0.42%	2.50%	7.79%	-	4.32%	8.89%	0.48	Dec-11
<b>Total Real Return</b>	<b>496,129,546</b>	<b>46.6%</b>	<b>0.74%</b>	<b>1.39%</b>	<b>3.11%</b>	<b>1.39%</b>	<b>2.10%</b>	<b>3.88%</b>	<b>-</b>	<b>4.34%</b>	<b>2.62%</b>	<b>1.50</b>	<b>Nov-11</b>
ML 3-month T-Bills			0.02%	0.05%	0.19%	0.05%	0.23%	0.10%	-	0.10%	0.04%	-	Nov-11
HFRI Fund of Funds Composite Index			0.17%	1.73%	-0.89%	1.73%	-1.99%	2.40%	-	2.91%	3.58%	0.71	Nov-11
<b>Total Hedge Fund Portfolio</b>	<b>1,064,887,000</b>	<b>100.0%</b>	<b>0.91%</b>	<b>1.91%</b>	<b>0.56%</b>	<b>1.91%</b>	<b>-0.88%</b>	<b>3.57%</b>	<b>-</b>	<b>4.85%</b>	<b>3.33%</b>	<b>1.32</b>	<b>Nov-11</b>
HFRI Fund of Funds Composite Index			0.17%	1.73%	-0.89%	1.73%	-1.99%	2.40%	-	2.91%	3.58%	0.71	Nov-11

## Employees' Retirement System of the State of Rhode Island

Hedge Fund Portfolio

Portfolio Performance Summary

Estimated as of August 31, 2016

Fund	Market Value	Actual %	Returns							Std Dev	Sharpe Ratio	Incep Date	
			Aug	QTD	YTD	FYTD	1 Year	3 Year	5 Year				
<b>Market Indices</b>													
Libor3Month			0.07%	0.13%	0.45%	0.13%	0.60%	0.37%	-	0.37%	0.05%	-	Nov-11
Barclays Aggregate Bond Index			-0.11%	0.52%	5.87%	0.52%	5.99%	4.38%	-	3.19%	2.70%	1.04	Nov-11
Barclays High Yield Credit Bond Index			2.09%	4.85%	14.34%	4.85%	9.07%	5.40%	-	7.19%	5.79%	1.17	Nov-11
S&P 500 TR			0.14%	3.83%	7.82%	3.83%	12.55%	12.31%	-	14.49%	10.39%	1.32	Nov-11
MSCI EAFE - Net			0.07%	5.14%	0.49%	5.14%	-0.12%	2.47%	-	5.35%	13.82%	0.42	Nov-11
MSCI EMF (Emerging Markets Free) - Net			2.49%	7.64%	14.55%	7.64%	11.83%	1.12%	-	0.25%	16.60%	0.07	Nov-11

Most recent month returns are based on manager estimates; prior months use final market values.

Hedge Fund Research, Inc. ("HFR") is the source and owner of the HFR data contained or reflected in this report. The HFR indices included in this report are revised by HFR for up to three months following their initial release. The revisions are reflected in the trailing period returns.

This report reflects information only through the date hereof. Our due diligence and reporting rely upon the accuracy and completeness of financial information (which may or may not be audited by the fund manager) and other information publicly available or provided to us by the fund manager, its professional staff, and references we have contacted and other third parties. We have not conducted an independent verification of the information provided other than as described in this report. Our conclusions do not reflect an audit of the investment nor should they be construed as providing legal advice. Past performance does not guarantee future performance. The information contained herein is confidential commercial or financial information, the disclosure of which would cause substantial competitive harm to you, Cliffwater LLC, or the person or entity from whom the information was obtained, and may not be disclosed except as required by applicable law.

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**Employees' Retirement System of the State of Rhode Island**

Hedge Fund Portfolio

Fund Level Performance Report

Estimated as of August 31, 2016

Fund	Trailing Returns					Calendar Year Returns					5 Yr Std Dev	Sharpe Ratio			Start Date			
	QTD	YTD	Aug	Jul	Jun	1 Year	3 Year	5 Year	2015	2014		2013	2012	2011		3 yr	5 yr	Incep.
<b>Global Equities</b>																		
Ascend Partners Fund II LP	0.67%	-4.14%	0.55%	0.12%	-0.41%	-3.42%	3.40%	3.28%	2.66%	5.09%	12.22%	2.50%	-3.02%	2.94%	0.89	0.98	0.96	Jan-04
Davidson Kempner Institutional Partners, L.P.	1.38%	4.09%	0.63%	0.75%	0.23%	4.04%	4.19%	5.31%	1.51%	4.45%	9.52%	6.87%	1.27%	2.19%	1.74	2.20	1.55	Mar-96
Elliott Associates, L.P.	2.21%	7.41%	1.20%	1.00%	0.00%	6.98%	7.75%	8.32%	2.51%	8.24%	12.44%	13.18%	3.94%	3.64%	1.83	2.11	1.90	Jan-90
ESG Cross Border Equity Fund LP	-0.70%	-7.13%	-0.20%	-0.50%	0.80%	-6.34%	-5.24%	-0.61%	-5.06%	-7.16%	13.59%	6.74%	9.45%	7.03%	-0.71	-0.11	0.67	Jan-04
Indus Asia Pacific Fund, LP	1.55%	-32.81%	0.00%	1.55%	-19.32%	-52.82%	-26.64%	-16.93%	-33.23%	-15.60%	4.97%	8.21%	-7.18%	17.65%	-1.33	-0.97	-0.03	Dec-00
Luxor Capital Partners, LP	-2.20%	-9.94%	-2.73%	0.55%	-1.12%	-23.21%	-11.24%	-4.54%	-19.05%	-9.83%	19.53%	5.21%	-2.89%	8.48%	-1.27	-0.55	0.70	Apr-02
PFM Diversified Fund, L.P.	2.89%	-7.23%	0.61%	2.27%	-1.59%	-8.07%	4.81%	5.18%	8.10%	2.84%	22.17%	5.59%	-3.35%	8.63%	0.51	0.59	0.81	Nov-04
Samlyn Onshore Fund, L.P.	3.11%	-1.67%	1.75%	1.34%	-1.34%	-6.06%	5.25%	6.31%	-1.29%	9.24%	18.93%	10.49%	-5.05%	7.36%	0.70	0.82	0.99	Mar-07
Viking Global Equities, LP	4.75%	-1.15%	1.90%	2.80%	-2.50%	-0.33%	10.65%	11.79%	8.27%	13.47%	22.65%	12.75%	7.71%	7.53%	1.13	1.47	1.45	Oct-99
<b>Real Return</b>																		
Brevan Howard LP	-1.39%	-2.54%	-0.22%	-1.17%	0.91%	-5.36%	-1.36%	0.39%	-1.98%	-0.78%	2.68%	3.91%	12.21%	5.26%	-0.31	0.03	0.91	Sep-05
Brigade Leveraged Capital Structures Fund LP	4.59%	18.41%	2.40%	2.14%	0.97%	6.56%	3.24%	3.47%	-10.73%	0.61%	6.13%	6.91%	2.55%	5.63%	0.44	0.57	0.67	Jan-07
Capula Global Relative Value Fund Ltd.	1.00%	4.09%	0.49%	0.51%	0.43%	5.98%	7.24%	6.21%	7.54%	8.14%	7.60%	0.41%	6.19%	2.03%	4.68	2.79	1.86	Oct-05
Claren Road Credit Fund, Ltd.	-0.34%	1.61%	-0.24%	-0.10%	-0.62%	-0.01%	-5.39%	-2.07%	-7.96%	-10.10%	5.43%	1.49%	6.88%	6.23%	-0.80	-0.36	0.67	Jan-06
DE Shaw Composite Fund LLC	2.52%	5.50%	1.00%	1.50%	-0.60%	9.86%	13.26%	12.43%	14.62%	15.57%	11.51%	13.94%	3.69%	4.13%	2.92	2.78	1.58	Mar-01
Graham Absolute Return Trading Ltd.	-0.39%	0.15%	-0.58%	0.19%	0.60%	-0.29%	6.26%	6.74%	1.50%	10.42%	10.50%	9.29%	4.64%	7.43%	0.74	0.87	1.01	Jan-05
OZ Domestic Partners II, L.P.	2.54%	0.22%	2.05%	0.48%	-0.92%	-1.89%	3.61%	5.74%	-0.44%	5.45%	14.20%	12.01%	0.17%	4.66%	0.62	1.14	1.01	Jan-04
Winton Futures Fund Limited	-0.44%	-0.53%	-1.57%	1.15%	3.95%	2.49%	7.79%	3.86%	0.95%	13.88%	9.43%	-3.56%	6.29%	8.78%	0.80	0.43	0.69	Oct-97
<b>Benchmark</b>																		
HFRI Fund of Funds Composite Index	1.73%	-0.89%	0.17%	1.55%	-0.46%	-1.99%	2.40%	2.45%	-0.27%	3.37%	8.96%	4.79%	-5.72%	3.80%				Jan-90
HFRI Fund Weighted Composite Index	2.25%	3.49%	0.40%	1.84%	0.41%	2.78%	3.47%	3.46%	-1.12%	2.98%	9.13%	6.36%	-5.25%	4.68%				Jan-90
<b>Market Indices</b>																		
3 Month Libor - BOM	0.13%	0.45%	0.07%	0.06%	0.05%	0.60%	0.37%	0.37%	0.33%	0.23%	0.27%	0.42%	0.35%	0.05%				Jan-87
Barclays Aggregate Bond Index	0.52%	5.87%	-0.11%	0.63%	1.80%	5.99%	4.38%	3.25%	0.57%	5.94%	-2.02%	4.23%	7.86%	2.67%				Jan-76
Barclays High Yield Credit Bond Index	4.85%	14.34%	2.09%	2.70%	0.92%	9.07%	5.40%	7.48%	-4.46%	2.46%	7.46%	15.81%	4.98%	6.43%				Jul-83
S&P 500 (TR)	3.83%	7.82%	0.14%	3.69%	0.26%	12.55%	12.30%	14.69%	1.38%	13.69%	32.39%	16.00%	2.11%	11.72%				Jun-88
MSCI EAFE - Net - USD	5.14%	0.49%	0.07%	5.07%	-3.36%	-0.12%	2.47%	5.00%	-0.81%	-4.90%	22.78%	17.31%	-12.13%	14.90%				Dec-69
MSCI EMF (EMERGING MARKETS FREE) - Net - USD	7.64%	14.55%	2.49%	5.03%	4.00%	11.83%	1.12%	-0.42%	-14.92%	-2.19%	-2.60%	18.23%	-18.42%	18.58%				Dec-87

Note: The above is manager composite history.

## Section VIII.

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### Private Equity Returns

# Portfolio Summary

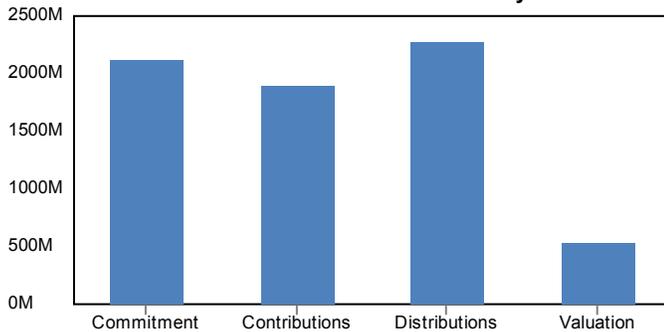
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All Portfolio Investments

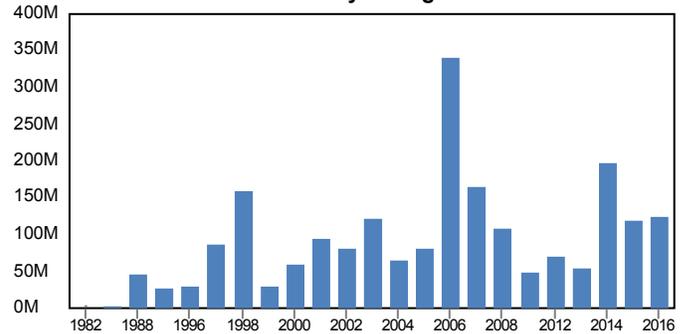
## Performance Summary

Asset Class	Investment Type	Number of Investments	Commitment	Contributions	Distributions	Adjusted Valuation	Multiple of Cost	IRR	TWR
Private Equity Funds	Agriculture	1	30,000,000	6,808,863	0	5,362,070	0.79	-21.40	-86.42
	Buyout	75	1,240,235,524	1,150,231,458	1,478,052,916	284,052,709	1.53	13.03	13.10
	Direct Lending	3	75,000,000	39,800,860	16,517,623	28,538,168	1.13	8.42	7.95
	Distressed Debt	14	238,000,000	213,978,869	224,030,943	69,302,017	1.37	10.24	9.87
	Energy	8	148,000,000	133,969,783	178,392,073	23,792,231	1.51	23.83	6.80
	Fund of Funds	1	45,000,000	45,000,000	106,748,821	0	2.37	19.94	-100.00
	Secondary	4	60,000,000	54,909,565	58,559,657	9,627,126	1.24	6.32	4.85
	Venture Capital	22	281,250,000	248,642,962	207,450,811	113,475,514	1.29	5.16	1.98
	<b>Total: Private Equity Funds</b>		<b>128</b>	<b>2,117,485,524</b>	<b>1,893,342,360</b>	<b>2,269,752,844</b>	<b>534,149,835</b>	<b>1.48</b>	<b>13.36</b>
<b>Total:</b>		<b>128</b>	<b>2,117,485,524</b>	<b>1,893,342,360</b>	<b>2,269,752,844</b>	<b>534,149,835</b>	<b>1.48</b>	<b>13.36</b>	<b>10.81</b>

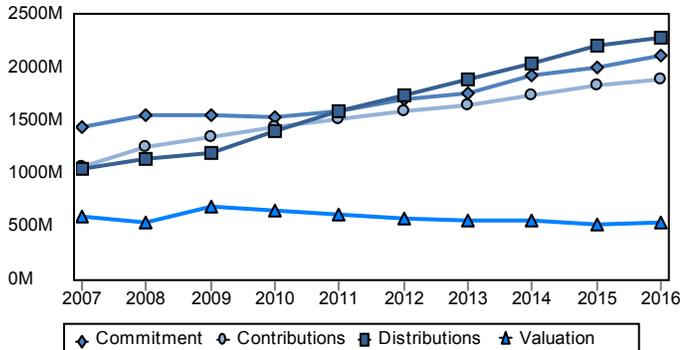
Cash Flow and Valuation Summary



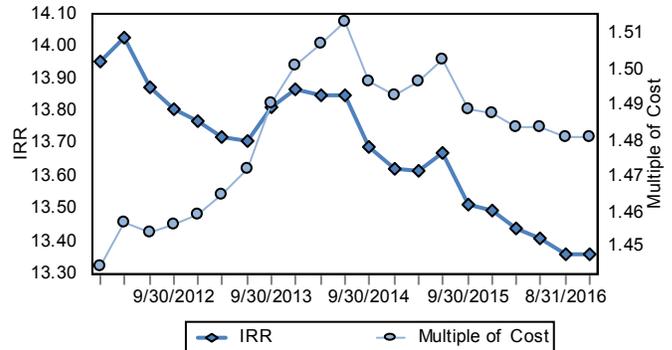
Commitment by Vintage Year



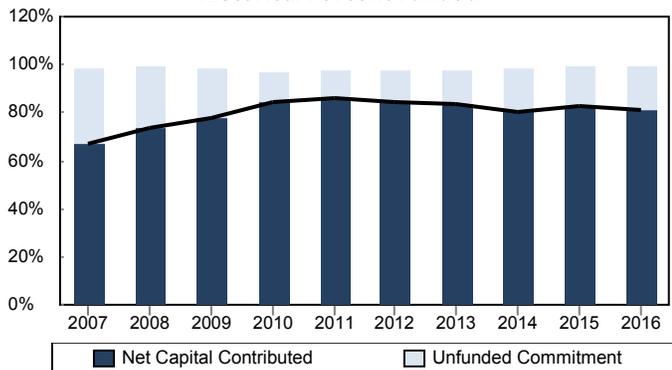
Historical Cash Flows and Valuation



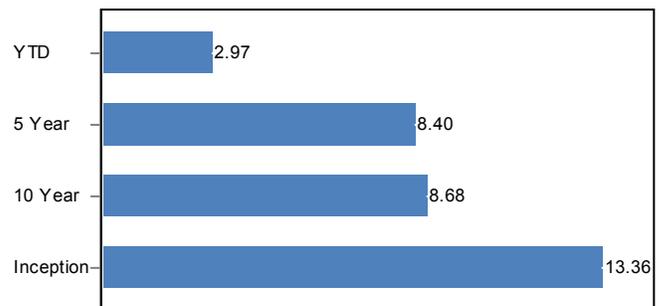
Historical Performance



Historical Percent Funded



Period IRRs



**Employees' Retirement System of Rhode Island Private Equity Performance**  
6/30/2016

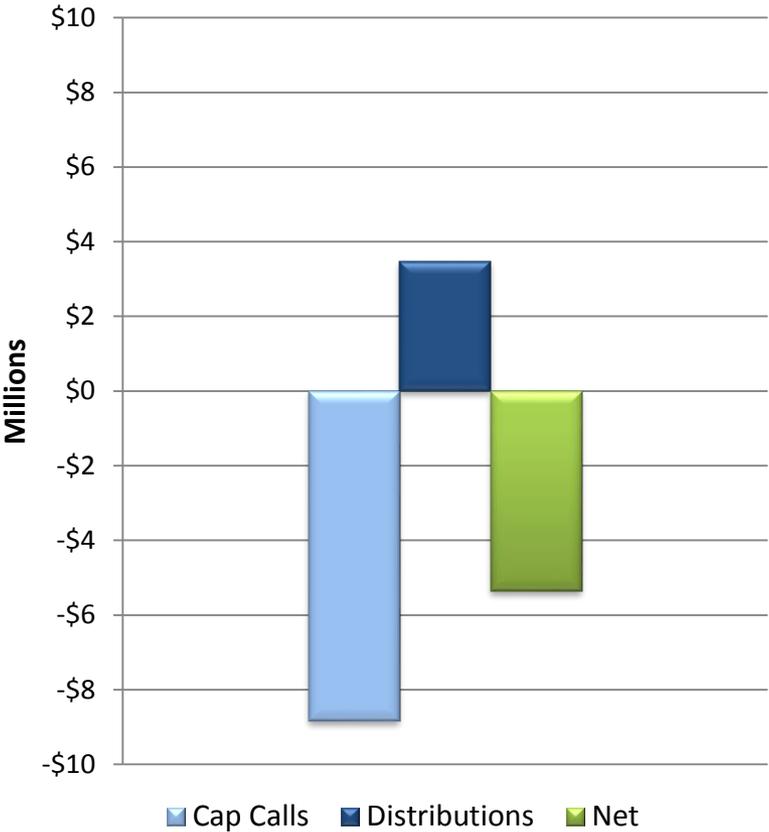
Current Partnerships	Vintage Year	Amount Committed (In \$ unless otherwise noted)	Cumulative Cash Flows (\$)				Cumulative Performance*	
			Amount Drawn	Amount Distributed	Amount Unfunded	Valuation (\$)	Net IRR (%)	Net Multiple of Investment
Advent International GPE VII	2012	20,000,000	17,070,000	2,670,000	2,930,000	19,955,275	15.2	1.3
Alta BioPharma Partners III	2003	15,000,000	14,250,000	20,297,956	750,000	465,595	5.8	1.5
Alta Partners VIII	2006	15,000,000	15,000,000	22,518,408	-	8,733,659	16.3	2.1
Aurora Equity Partners III	2004	15,000,000	16,242,296	26,640,090	835,850	1,694,298	15.7	1.7
Avenue Special Situations Fund IV	2006	20,000,000	25,179,595	32,706,000	-	157,965	8.3	1.3
Avenue Special Situations Fund V	2007	20,000,000	20,329,267	26,322,021	-	155,110	10.6	1.3
Bain Capital Fund X	2008	25,000,000	24,300,000	20,784,576	762,500	13,012,976	7.5	1.4
Baring Asia Private Equity Fund VI	2015	15,000,000	4,540,598	22,568	10,459,402	4,370,200	-5.3	1.0
Birch Hill Equity Partners III	2005	CAD 18,000,000	18,887,577	29,210,055	259,500	4,784,745	12.1	1.8
Carlyle Asia Partners IV	2014	30,000,000	15,704,798	565,712	14,902,324	14,389,013	-3.9	1.0
Castile Ventures III	2006	5,000,000	5,009,730	1,396,371	-	1,600,291	-10.4	0.6
Centerbridge Capital Partners	2006	15,000,000	23,535,297	34,677,517	1,095,594	8,322,384	20.6	1.8
Centerbridge Capital Partners III	2015	25,000,000	6,656,949	263,547	18,606,598	7,013,139	12.3	1.1
Centerbridge Special Credit Partners II	2012	25,000,000	22,500,000	7,253,714	2,500,000	15,913,507	1.0	1.0
Charterhouse Capital Partners VIII	2006	€ 15,000,000	18,183,957	17,390,855	628,404	18,364	-0.7	1.0
Coller International Partners IV	2002	15,000,000	13,294,667	17,554,435	150,000	598,175	11.7	1.4
Coller International Partners V	2006	15,000,000	12,520,679	14,140,282	3,270,000	3,693,692	8.5	1.4
CVC European Equity Partners III	2001	20,000,000	23,158,043	59,551,716	899,966	534,033	41.1	2.6
CVC European Equity Partners IV	2005	€ 16,500,000	21,266,657	35,417,941	2,131,657	3,779,253	16.5	1.8
CVC European Equity Partners V	2008	€ 20,000,000	28,689,148	28,271,379	1,030,900	14,413,682	12.6	1.5
CVC Capital Partners VI	2014	€ 15,000,000	6,622,932	338,759	10,622,700	6,175,853	-1.8	1.0
EnCap Energy Capital Fund IX	2013	18,000,000	14,351,520	2,892,000	4,991,745	14,232,915	13.9	1.2
EnCap Energy Capital Fund X	2015	25,000,000	5,326,516	-	19,673,484	4,837,696	-22.0	0.9
Fenway Partners Capital Fund II	1998	15,000,000	18,513,234	20,153,002	232,336	1,962,582	4.9	1.2
Fenway Partners Capital Fund III	2006	15,000,000	16,976,092	13,254,579	1,266,241	5,821,492	2.4	1.1
First Reserve Fund X	2004	20,000,000	19,999,999	36,485,800	-	80,287	31.0	1.8
First Reserve Fund XI	2006	20,000,000	22,125,580	13,820,741	-	2,083,148	-8.9	0.7
Focus Ventures III	2006	15,000,000	15,000,000	5,411,619	-	4,614,109	-7.4	0.7
Garrison Opportunity Fund IV	2014	30,000,000	15,562,346	(498,315)	14,382,700	16,145,362	0.6	1.0
Granite Global Ventures II	2004	15,000,000	14,333,510	15,007,914	675,000	7,260,497	5.9	1.6
Granite Global Ventures III	2006	15,000,000	14,625,503	21,339,969	375,000	11,129,280	15.9	2.2
Green Equity Investors V	2007	20,000,000	20,422,385	24,644,326	1,731,092	13,567,844	17.5	1.9
Industry Ventures Partnership Holdings III	2014	25,000,000	16,562,702	833,921	8,437,298	16,971,538	15.8	1.2
Industry Ventures Partnership Holdings III C	2015	15,000,000	1,987,500	-	13,012,500	1,943,740	-3.5	1.0
Industry Ventures Partnership Holdings IV	2016	10,000,000	400,000	-	9,600,000	(11,986)	-10.9	1.0
Kayne Anderson Energy Fund III	2005	15,000,000	15,965,344	14,983,550	366,426	440,276	-1.9	1.0
Kayne Anderson Energy Fund IV	2007	15,000,000	16,605,519	16,345,850	-	1,483,763	2.5	1.1
Leapfrog Ventures II	2005	10,000,000	9,490,000	6,811,564	510,000	4,178,082	2.7	1.2
Leeds Equity Partners IV	2003	10,000,000	10,209,327	11,467,347	1,099,639	3,063,733	4.7	1.3
Lighthouse Capital Partners V	2003	11,250,000	10,462,500	12,208,726	787,500	96,388	3.8	1.2
Lighthouse Capital Partners VI	2007	15,000,000	14,250,000	19,271,256	750,000	1,449,663	7.3	1.5
LNK Partners	2006	12,500,000	12,045,398	16,651,771	456,855	2,583,736	10.7	1.6
MHR Institutional Partners III	2006	20,000,000	20,800,000	20,133,259	6,974,396	8,050,952	6.6	1.4
Nautic Partners V	2000	20,000,000	20,325,743	40,372,953	641,735	1,629,540	17.2	2.1
Nautic Partners VI	2007	20,000,000	23,972,088	43,204,817	609,669	9,532,328	17.6	2.2
Nautic Partners VII	2014	20,000,000	11,551,361	5,135,745	9,506,519	14,887,223	87.8	1.7
Nordic Capital Fund V	2003	€ 14,615,550	21,434,529	57,872,857	-	902,822	21.1	2.7
Nordic Capital Fund VI	2006	€ 15,000,000	22,435,404	22,681,256	-	10,945,583	6.9	1.5
Nordic Capital Fund VII	2008	€ 15,000,000	20,175,973	6,010,358	1,591,454	18,692,529	4.1	1.2
Nordic Capital Fund VIII	2013	€ 15,000,000	9,830,680	368,111	8,050,273	9,173,710	-1.8	1.0
Oaktree European Principal Fund III	2011	20,000,000	17,150,000	2,432,019	5,271,496	18,575,064	7.9	1.2
Paine & Partners Capital Fund IV	2015	30,000,000	6,633,397	-	23,373,462	5,186,604	-25.3	0.8
Paladin III	2008	10,000,000	12,370,215	5,639,262	283,343	10,139,277	7.1	1.3
Parthenon Investors II	2001	23,960,000	23,409,381	37,045,489	1,821,022	631,237	12.3	1.6
Point 406 Ventures I	2006	10,000,000	10,271,265	4,123,844	580,000	13,860,886	11.0	1.8
Point Judith Venture Fund II	2006	5,000,000	5,991,513	2,085,239	255,572	3,225,362	-2.5	0.9
Providence Equity Partners IV	2000	25,000,000	35,971,884	68,445,391	1,995,291	203,088	23.9	1.9
Providence Equity Partners V	2005	25,000,000	31,133,327	32,208,167	2,196,745	5,895,246	3.8	1.2
Providence Equity Partners VI	2007	25,000,000	28,657,449	24,789,809	1,837,853	13,684,440	6.4	1.3
Providence Equity Partners VII	2012	25,000,000	18,227,449	3,960,222	10,746,960	16,453,069	8.9	1.1
Riverside Capital Appreciation Fund VI	2013	20,000,000	11,331,287	13,598	8,668,713	13,113,126	11.0	1.2
Riverside Micro-Cap Fund III	2014	20,000,000	17,758,317	(4,719)	2,241,683	21,388,821	13.5	1.2
Sorenson Capital Partners III	2014	30,000,000	10,794,339	-	19,447,569	9,772,049	-9.4	0.9
Southwest Partners VII	2016	30,000,000	497,149	-	29,502,851	37,388	-92.5	0.1
Tenex Capital Partners II	2016	25,000,000	1,885,611	-	23,114,052	1,669,954	-10.6	0.9
TPG Partners IV	2003	15,000,000	16,672,684	29,927,322	64,421	2,618,764	15.8	2.0
TPG Partners V	2006	20,000,000	20,697,887	19,695,327	1,774,959	8,610,997	5.2	1.4
TPG Partners VI	2008	10,000,000	13,533,484	11,301,211	938,203	6,404,640	8.9	1.3
Trilantic Capital Partners IV	2007	11,098,351	11,528,514	15,849,474	1,229,733	2,139,815	14.0	1.6
W Capital Partners	2004	15,000,000	14,197,500	10,229,777	802,500	988,340	-7.3	0.8
W Capital Partners II	2007	15,000,000	14,896,718	16,296,457	1,596,691	4,685,623	11.2	1.4
WLR Recovery Fund IV	2007	8,000,000	7,277,318	8,303,459	765,256	1,577,495	8.0	1.4
Other funds in aggregate**	various	120,000,000	112,035,382	95,443,499	13,533,231	54,349,254	10.9	1.4
<b>Total</b>		<b>\$ 1,413,745,688</b>	<b>\$ 1,231,605,013</b>	<b>\$ 1,232,643,725</b>	<b>\$ 329,598,861</b>	<b>\$ 532,742,580</b>		

\*IRR refers to the fund's Internal Rate of Return, or the annualized compounded yield on an investment. This calculation is typically applied in private equity where there are multiple points at which capital is invested (capital called) and at which it is distributed. A positive IRR means that the fund's current value plus any cash distributions are greater than the cash value contributed and management fees paid. Typically a fund will have a negative IRR during the first few years of its life, a period referred to as the "J-Curve", because cash is invested upfront and it takes time to generate value. It is important to consider a fund's start date (vintage year) when assessing IRRs. Multiple of investment is another indicator of returns, and is calculated by dividing the fund's cumulative distributions and current value, after fees, by the amount of capital paid in. Please note that performance calculations are specific to the ERSRI investment, and were not prepared, reviewed or approved by the General Partners.

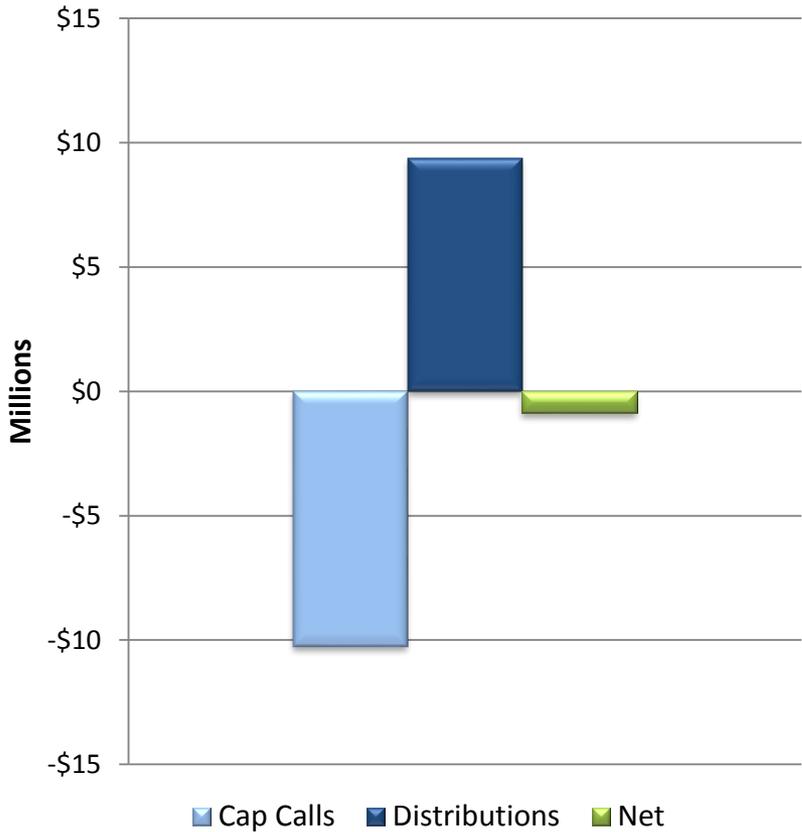
\*\*Other funds in aggregate are the total commitments to and amounts drawn and distributed by funds whose confidentiality provisions do not permit the disclosure of their performance data. These funds include Braemar Energy Ventures III, Constellation Ventures III, Summit Partners Credit Fund, Summit Partners Credit Fund II, Thomas, McNerney & Partners, Thomas McNerney & Partners II and Wellspring Capital Partners III.

# Private Equity Cash Flows

### August 2016



### Fiscal YTD August 2016



Section IX.

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## Real Estate Returns

## PORTFOLIO SUMMARY

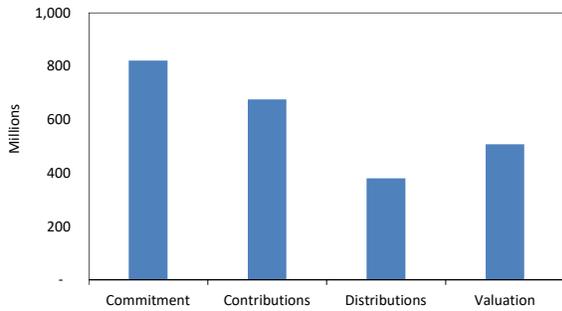
6/30/2016

All Portfolio Investments - Real Estate

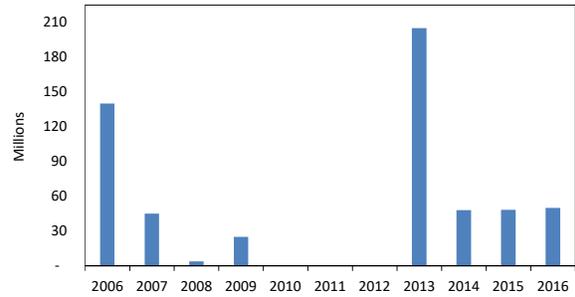
### Performance Summary

Asset Class	Investment Type	Number of Investments	Commitment	Contributions	Distributions	Adjusted Valuation	Multiple of Cost	IRR	TWR
Real Estate Funds	Core	8	405,000,000	433,732,187	242,810,890	396,430,061	1.5x	5.3%	5.5%
	Non-Core	21	415,260,817	295,727,920	137,640,396	111,550,091	0.8x	-4.6%	0.7%
<b>Total: Real Estate Funds</b>		<b>29</b>	<b>820,260,817</b>	<b>729,460,107</b>	<b>380,451,286</b>	<b>507,980,152</b>	<b>1.2x</b>	<b>3.6%</b>	<b>4.6%</b>
<b>Total:</b>		<b>29</b>	<b>820,260,817</b>	<b>729,460,107</b>	<b>380,451,286</b>	<b>507,980,152</b>	<b>1.2x</b>	<b>3.6%</b>	<b>4.6%</b>

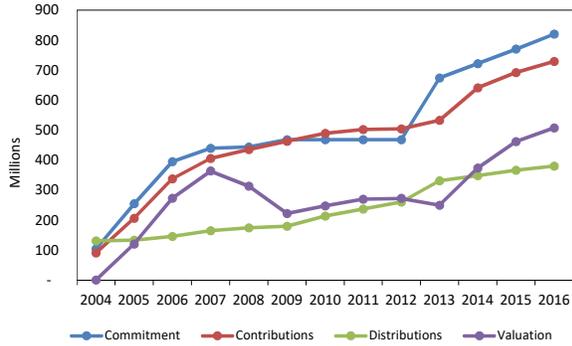
**Cash Flow and Valuation Summary**



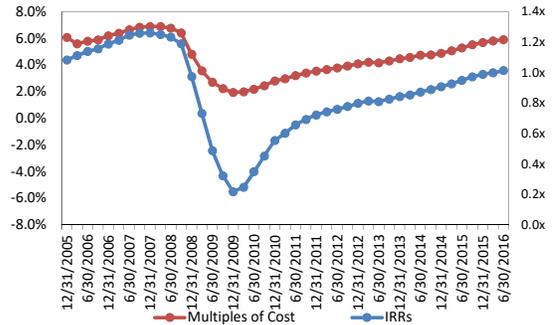
**Commitment by Vintage Year**



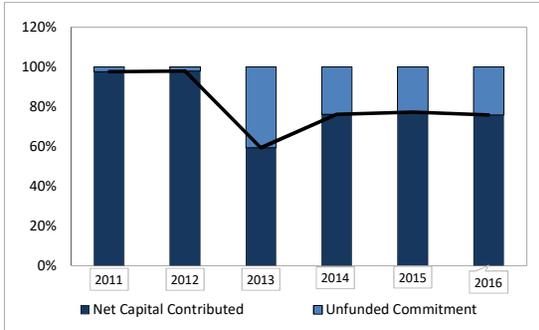
**Historical Cash Flows and Valuation**



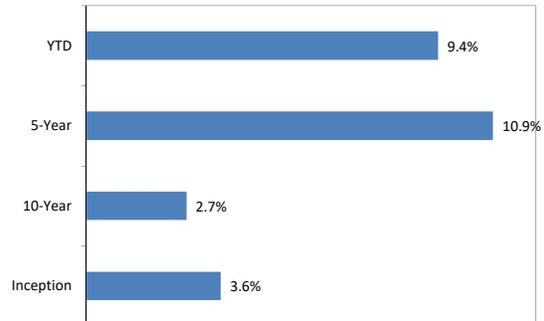
**Historical Performance**



**Historical Percent Funded**



**Period IRRs**



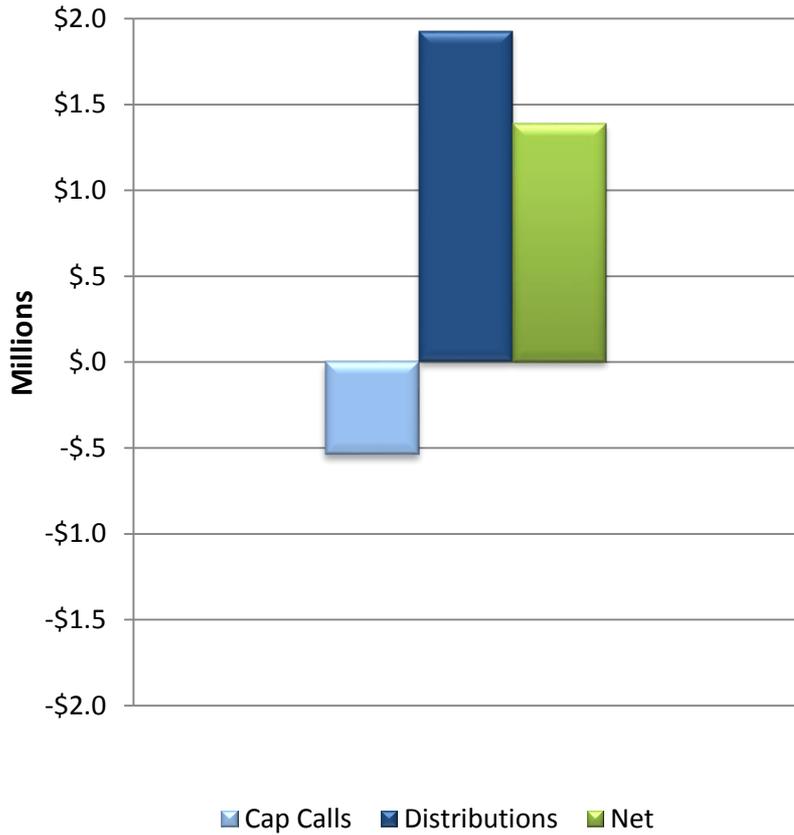
**Employees' Retirement System of Rhode Island Real Estate Performance  
6/30/2016**

Current Partnerships	Vintage Year	Amount Committed (In \$ unless otherwise noted)	Cumulative Cash Flows (\$)				Cumulative Performance*	
			Amount Drawn	Amount Distributed	Amount Unfunded	Valuation (\$)	Net IRR (%)	Net Multiple of Investment
AEW Core Property Trust	open-end	60,000,000	60,000,000	10,480,447	-	89,661,874	12.7%	1.7
Crow Holdings Retail Fund	2015	24,000,000	11,861,234	-	12,138,766	11,986,797	n/a	1.0
Exeter Industrial Value Fund III	2014	30,000,000	16,500,000	1,012,285	13,500,000	18,247,855	16.9%	1.2
GEM Realty Fund V	2013	50,000,000	23,809,133	4,385,000	26,190,867	25,802,455	14.9%	1.2
Heitman America Real Estate Trust	open-end	60,000,000	60,000,000	4,726,288	-	73,924,304	13.6%	1.2
IC Berkeley Partners III	2013	18,000,000	16,038,326	4,361,760	1,961,674	15,101,639	22.4%	1.2
JP Morgan Strategic Property Fund	open-end	75,000,000	75,000,000	22,218,543	-	100,968,151	6.2%	1.5
JP Morgan Alternative Property Fund	2006	20,000,000	20,000,000	14,727,125	-	189,400	-4.6%	0.7
Lone Star Real Estate Fund IV	2015	24,260,817	6,723,540	-	17,537,277	6,763,509	0.5%	1.0
Magna Hotel Fund III	2008	4,000,000	3,403,043	4,413,302	596,957	1,745,654	16.8%	1.8
Morgan Stanley Prime Property Fund	open-end	35,000,000	35,000,000	18,186,006	-	58,763,133	7.1%	1.9
Prudential (PRISA)	open-end	50,000,000	50,000,000	15,937,240	-	73,112,599	5.1%	1.6
TriCon Capital Fund VII	2005	15,000,000	14,571,533	3,692,644	428,467	1,319,598	-19.8%	0.3
Waterton Fund XII	2014	35,000,000	23,644,184	1,772,825	11,355,816	27,460,971	26.0%	1.2
<b>Total</b>		<b>\$ 500,260,817</b>	<b>\$ 416,550,993</b>	<b>\$ 105,913,465</b>	<b>\$ 83,709,824</b>	<b>\$ 505,047,939</b>		

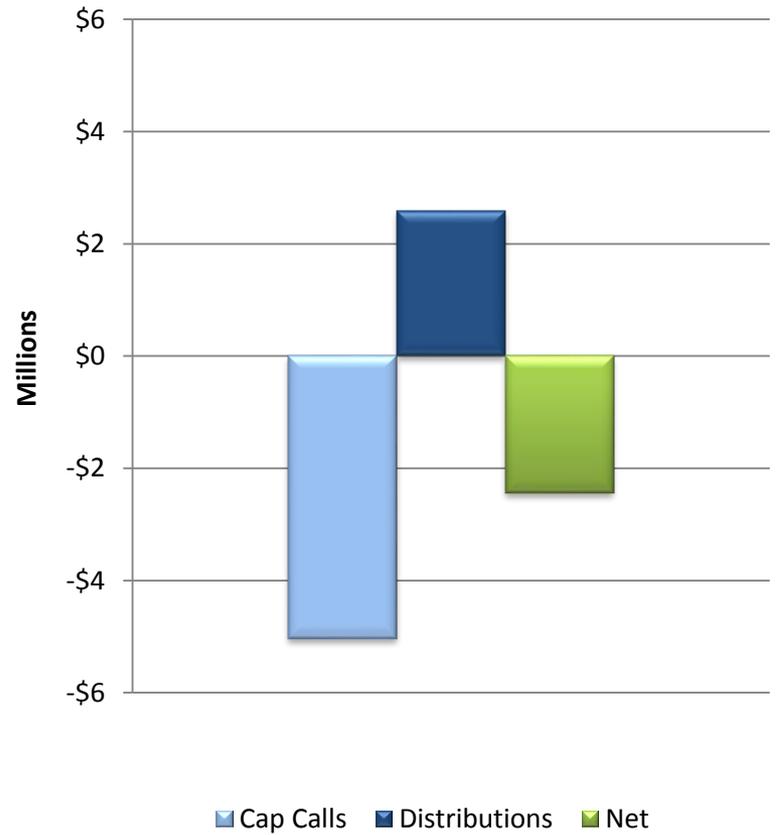
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# Real Estate Cash Flows

## August 2015



## Fiscal YTD August 2015



Section X.

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## Infrastructure Returns

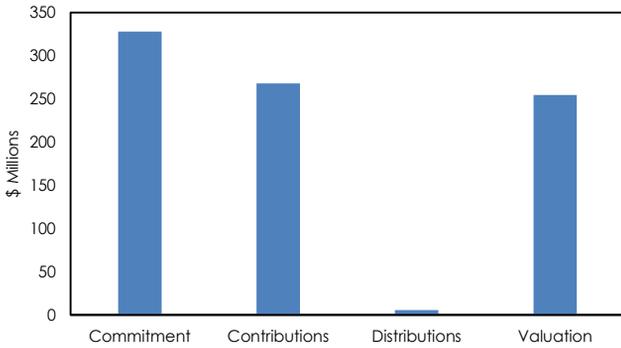
# Portfolio Summary

6/30/2016  
All Portfolio Investments – Infrastructure

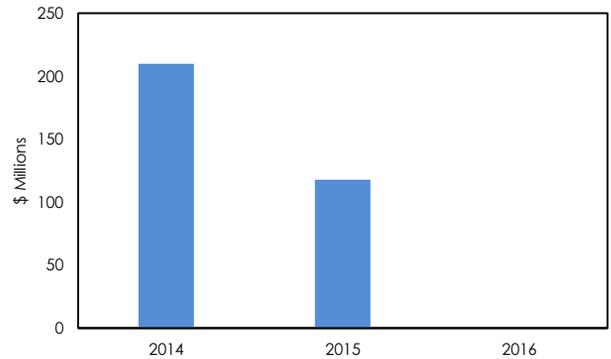
Investment	Commitment	Contributions	Distributions	Adjusted Valuation	Multiple of Cost*	Since Inception IRR*	1-yr IRR*	YTD IRR*
Harvest MLP Alpha Strategy	185,000,000	185,000,000	0	171,210,851	0.93	-14.8	-17.2	14.2
IFM Global Infrastructure	50,000,000	50,000,000	770,923	53,491,936	1.09	7.3	7.3	4.6
ISQ Global Infrastructure Fund	50,000,000	21,448,994	4,791,186	16,571,713	1.00	-0.8	23.5	27.0
Stonepeak Infrastructure Fund II	43,000,000	11,367,535	19,785	13,340,949	1.18	25.3	N/A	41.6
<b>Total</b>	<b>328,000,000</b>	<b>267,816,529</b>	<b>5,581,894</b>	<b>254,615,449</b>	<b>0.97</b>	<b>-2.4</b>	<b>20.3</b>	<b>26.5</b>

\*Net of Fees and Expenses

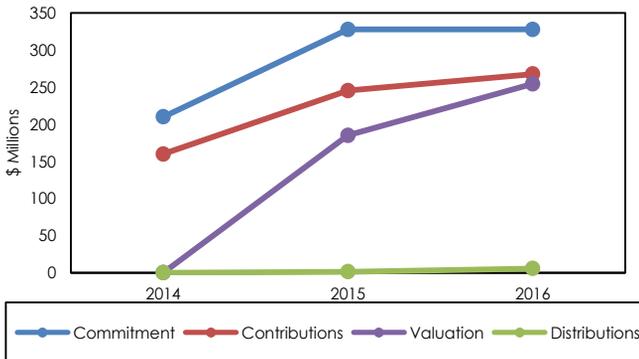
### Cash Flow and Valuation Summary



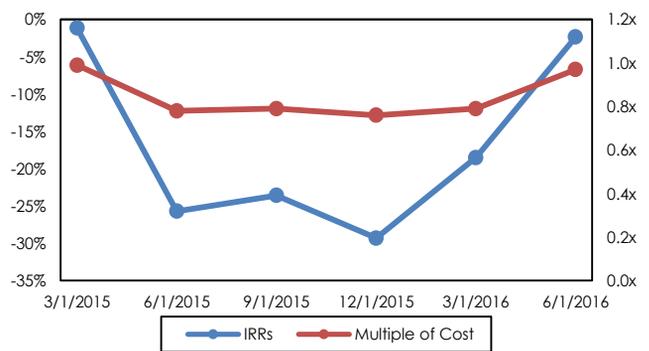
### Commitment by Vintage Year



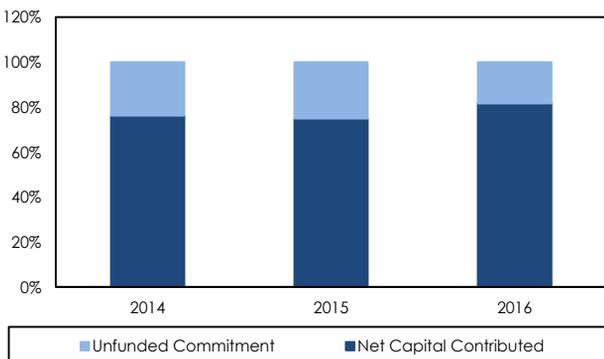
### Historical Cash Flows and Valuation



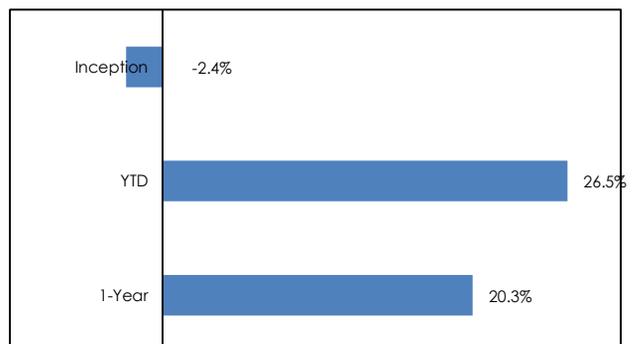
### Historical Performance



### Historical Percent Funded



### Period IRRs



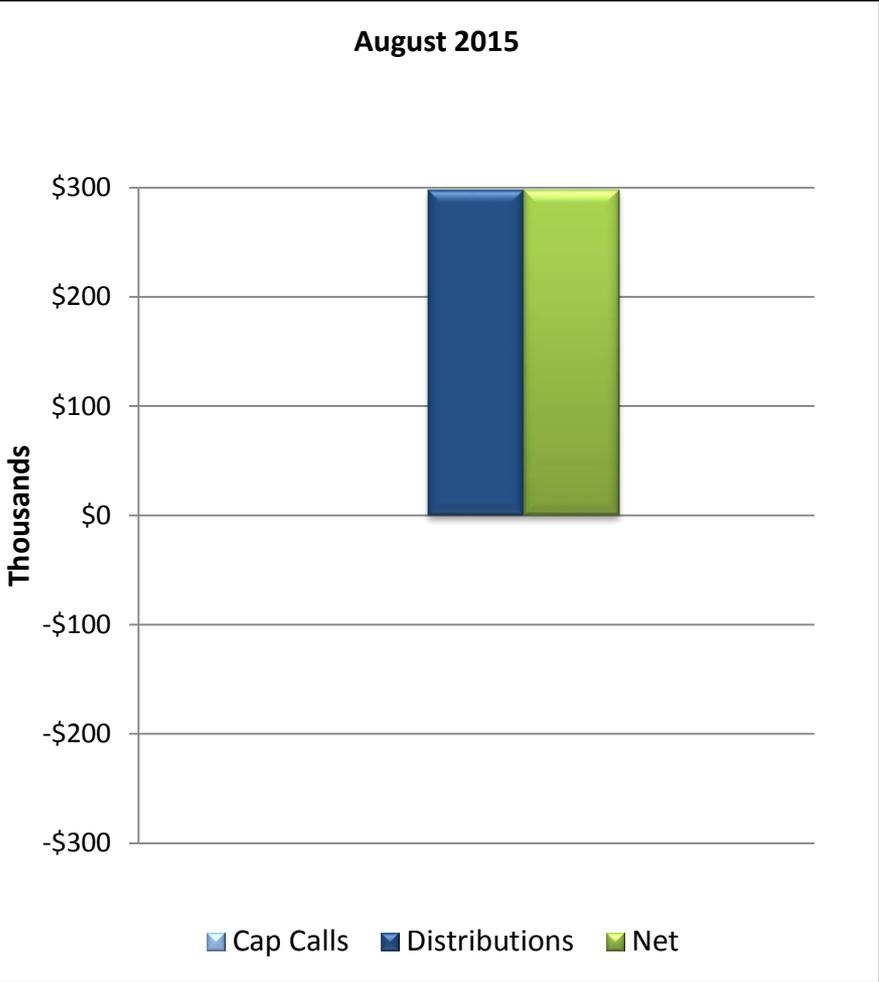
**Employees' Retirement System of Rhode Island Private Infrastructure Performance  
6/30/2016**

Current Partnerships	Vintage Year	Amount Committed (In \$ unless otherwise noted)	Cumulative Cash Flows (\$)				Cumulative Performance*	
			Amount Drawn	Amount Distributed	Amount Unfunded	Valuation (\$)	Net IRR (%)	Net Multiple of Investment
IFM Global Infrastructure, L.P.	open-end	50,000,000	50,000,000	770,923	-	53,491,936	7.6	1.1
ISO Global Infrastructure Fund, L.P.	2015	50,000,000	16,657,808	3,521,126	33,342,192	16,571,713	n/a	1.2
Stonepeak Infrastructure Fund II, L.P.	2016	43,000,000	11,367,535	19,785	31,632,465	13,340,949	n/a	1.2
<b>Total</b>		<b>\$ 143,000,000</b>	<b>\$ 78,025,343</b>	<b>\$ 4,311,834</b>	<b>\$ 64,974,657</b>	<b>\$ 83,404,598</b>		

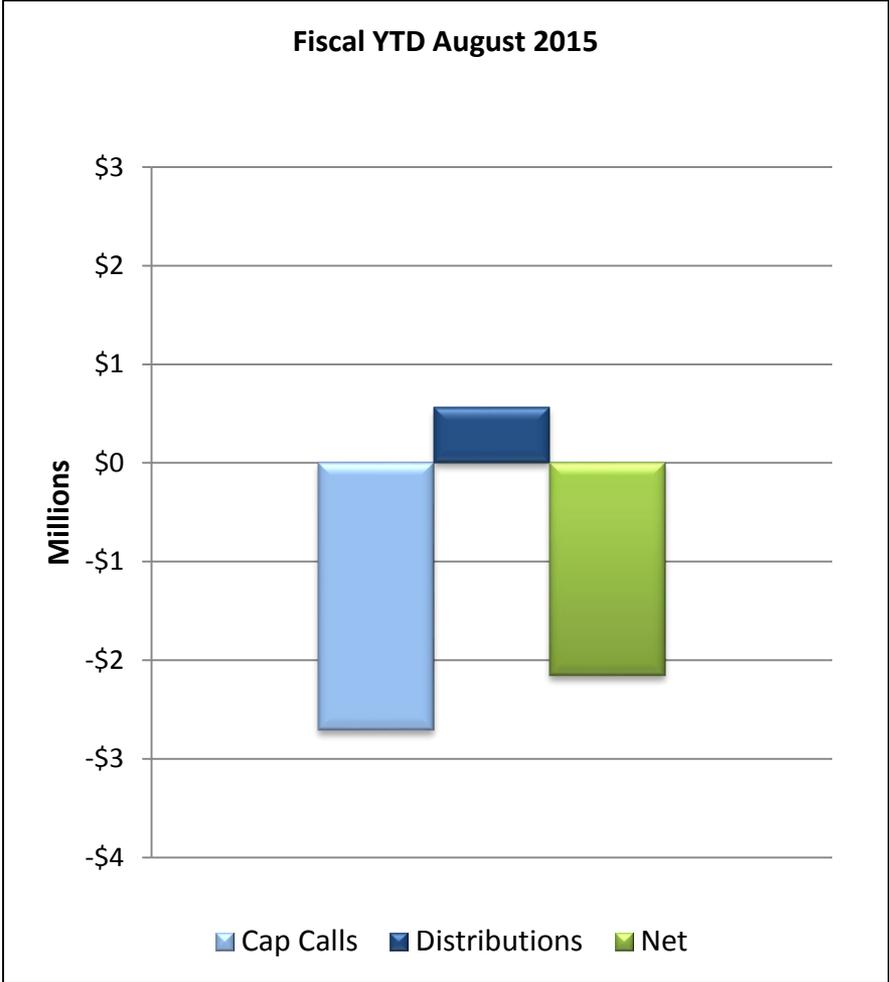
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# Infrastructure Cash Flows

### August 2015



### Fiscal YTD August 2015



## Section XI.

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### Cash Flow

# Monthly Valuation Change

Period : 2016-08-01 - 2016-08-31

Category	Source Account Name	Closing Balance	Market Value Increase/(Decrease)	Transfer In/(Out)	Opening Balance
<b>Grand Total</b>		<b>7,674,319,357.32</b>	<b>34,224,528.83</b>	<b>(13,828,223.00)</b>	<b>7,653,923,051.49</b>
<b>Total Global Equity</b>		<b>3,997,926,680.56</b>	<b>19,700,618.11</b>	<b>324,253.70</b>	<b>3,977,901,808.75</b>
<b>Global Equity</b>		<b>3,429,942,101.54</b>	<b>12,205,749.06</b>	<b>324,253.70</b>	<b>3,417,412,098.78</b>
	SSGA R3000 INDEX	1,215,595,599.43	3,179,261.72	40,756.85	1,212,375,580.86
	SSGA MSCI EAFE	720,270,340.60	580,485.91	60,075.60	719,629,779.09
	SSGA MSCI CANADA	98,167,908.09	344,020.07	7,813.51	97,816,074.51
	SSGA MSCI EM	341,767,640.40	8,229,144.18	78,297.67	333,460,198.55
	QVM TILT	1,054,140,613.02	(127,162.82)	137,310.07	1,054,130,465.77
<b>Global Equity Hedge Funds</b>		<b>567,984,579.02</b>	<b>7,494,869.05</b>	<b>0.00</b>	<b>560,489,709.97</b>
	DAVIDSON KEMPNER	78,685,302.94	555,895.45	0.00	78,129,407.49
	ELLIOTT ASSOCIATES	90,415,815.68	2,308,665.17	0.00	88,107,150.51
	INDUS ASIA PACIFIC	304,794.45	(10.18)	0.00	304,804.63
	PFM DIVERSIFIED	77,167,242.99	464,573.22	0.00	76,702,669.77
	SAMLYN ON/OFFSHORE	105,269,012.06	1,840,559.61	0.00	103,428,452.45
	VIKING GLOBAL EQUITI	101,122,343.62	2,075,487.59	0.00	99,046,856.03
	LUXOR CAP PTNS LP	5,507,088.23	(173,417.91)	0.00	5,680,506.14
	ESG CBE FUND LP	40,841,093.21	(62,914.48)	0.00	40,904,007.69
	ASCENT ERSRI FUND LP	68,671,885.84	486,030.58	0.00	68,185,855.26
<b>Private Equity</b>		<b>532,804,388.34</b>	<b>4,746,173.76</b>	<b>5,367,746.64</b>	<b>522,690,467.94</b>
<b>Private Equity</b>		<b>532,804,388.34</b>	<b>4,746,173.76</b>	<b>5,367,746.64</b>	<b>522,690,467.94</b>
	PRIVATE EQUITY	532,804,388.34	4,746,173.76	5,367,746.64	522,690,467.94
<b>Total Fixed Income</b>		<b>1,068,224,181.63</b>	<b>291,033.05</b>	<b>0.00</b>	<b>1,067,933,148.58</b>
<b>Fixed Income</b>		<b>1,068,224,181.63</b>	<b>291,033.05</b>	<b>0.00</b>	<b>1,067,933,148.58</b>
	MACKAY SHIELDS	527,684,283.05	72,727.19	0.00	527,611,555.86
	PYRAMIS GLOBAL ADV	540,539,898.58	218,305.86	0.00	540,321,592.72
<b>Total Real Return</b>		<b>1,463,002,202.18</b>	<b>6,815,681.03</b>	<b>(297,669.50)</b>	<b>1,456,484,190.65</b>
<b>Alternative Absolute Return</b>		<b>365,631,082.72</b>	<b>2,036,118.88</b>	<b>0.00</b>	<b>363,594,963.84</b>
	BREVAN HOWARD	76,390,895.84	(206,353.61)	0.00	76,597,249.45
	DE SHAW	94,642,705.49	954,180.65	0.00	93,688,524.84
	OZ DOMESTIC PTRS	102,422,471.00	2,188,544.18	0.00	100,233,926.82
	WINTON FUTURE FD	36,667,219.81	(583,319.28)	0.00	37,250,539.09
	GRAHAM ABS RETURN	55,507,790.58	(316,933.06)	0.00	55,824,723.64
<b>Alternative Fixed Income</b>		<b>130,496,252.78</b>	<b>1,680,847.44</b>	<b>0.00</b>	<b>128,815,405.34</b>
	BRIGADE LEV CAP	59,081,419.11	1,416,561.54	0.00	57,664,857.57
	CAPULA GLOBAL	65,278,650.14	322,046.95	0.00	64,956,603.19
	CLAREN ROAD CR. FUND	6,136,183.53	(57,761.05)	0.00	6,193,944.58
<b>Credit</b>		<b>424,583,372.45</b>	<b>2,585,183.69</b>	<b>0.00</b>	<b>421,998,188.76</b>
	PIMCO	215,464,220.52	895,980.52	0.00	214,568,240.00
	WAMCO	209,119,151.93	1,689,203.17	0.00	207,429,948.76
<b>GILBs</b>		<b>284,038,095.90</b>	<b>(1,383,950.11)</b>	<b>0.00</b>	<b>285,422,046.01</b>
	BROWN BROTHERS HARR	284,038,095.90	(1,383,950.11)	0.00	285,422,046.01
<b>Publicly Traded Infrastructure</b>		<b>258,253,398.33</b>	<b>1,897,481.13</b>	<b>(297,669.50)</b>	<b>256,653,586.70</b>
	PRIV INFRASTR AGGR	83,361,535.41	(321,688.30)	(297,669.50)	83,980,893.21
	HARVEST FUND ADVISOR	174,891,862.92	2,219,169.43	0.00	172,672,693.49
<b>Real Estate</b>		<b>510,478,127.79</b>	<b>2,548,440.03</b>	<b>(1,388,777.67)</b>	<b>509,318,465.43</b>

# Monthly Valuation Change

Period : 2016-08-01 - 2016-08-31

Category	Source Account Name	Closing Balance	Market Value Increase/(Decrease)	Transfer In/(Out)	Opening Balance
<b>Real Estate</b>		<b>510,478,127.79</b>	<b>2,548,440.03</b>	<b>(1,388,777.67)</b>	<b>509,318,465.43</b>
	REAL ESTATE	510,478,127.79	2,548,440.03	(1,388,777.67)	509,318,465.43
<b>Total Cash</b>		<b>82,927,791.19</b>	<b>37,972.49</b>	<b>(17,692,346.20)</b>	<b>100,582,164.90</b>
<b>Cash Accounts</b>		<b>82,927,791.19</b>	<b>37,972.49</b>	<b>(17,692,346.20)</b>	<b>100,582,164.90</b>
	ERSRI CASH	78,115,637.19	37,972.49	(20,064,123.20)	98,141,787.90
	CITIZENS CASH	4,812,154.00	0.00	2,371,777.00	2,440,377.00
<b>Total Other</b>		<b>18,480,964.96</b>	<b>112,159.58</b>	<b>0.00</b>	<b>18,368,805.38</b>
<b>Other</b>		<b>18,480,964.96</b>	<b>112,159.58</b>	<b>0.00</b>	<b>18,368,805.38</b>
	RUSSELL OVERLAY FD	18,480,964.96	112,159.58	0.00	18,368,805.38
<b>Total Miscellaneous</b>		<b>475,020.67</b>	<b>(27,549.22)</b>	<b>(141,429.97)</b>	<b>643,999.86</b>
<b>Miscellaneous Accounts</b>		<b>475,020.67</b>	<b>(27,549.22)</b>	<b>(141,429.97)</b>	<b>643,999.86</b>
	RI TRANS ACCT	5,151.03	(31.59)	0.00	5,182.62
	SHOTT CAPITAL	412,985.20	(10,070.31)	(4,085.54)	427,141.05
	DOM EQUITY TRANS	74.25	0.00	0.00	74.25
	NON-US EQUITY TRANS	54,749.99	(18,169.62)	(137,310.07)	210,229.68
	FIXED INC TRANS	2,060.20	722.30	(33.98)	1,371.88
	MACKAY SHIELDS LLC	0.00	0.00	(0.38)	0.38

**CASH FLOW ANALYSIS - INCOME & EXPENSES**

**Employees Retirement System**

FISCAL YEAR 2017	FY 2016-17												
	TOTAL	Projected June	Projected May	Projected April	Projected March	Projected February	Projected January 2017	Projected December	Projected November	Projected October	Projected September	Actual August	Actual July 2016
MEMBER BENEFITS	849,682,278	70,000,000	70,000,000	70,000,000	70,000,000	70,000,000	70,000,000	70,000,000	70,000,000	70,000,000	70,000,000	80,260,148	69,422,131
ADMINISTRATIVE EXPENSES	10,210,200	1,402,923.56	718,107	1,403,401	1,327,462	490,334	490,349	1,455,574	415,373	920,437	542,112	670,460	373,667
INVESTMENT EXPENSES	8,247,692	109,133	1,202,775	290,754	1,489,542	391,688	449,787	(6,984)	1,354,605	517,439	495,082	1,476,800	477,072
TOTAL OUTFLOW	868,140,170	71,512,056	71,920,881	71,694,154	72,817,004	70,882,023	70,940,136	71,448,589	71,769,978	71,437,876	71,037,194	82,407,407	70,272,870
CONTRIBUTIONS	484,590,749	25,172,944	40,513,703	36,341,134	44,799,731	37,789,948	42,154,006	51,049,618	43,254,275	37,105,170	25,941,084	53,520,677	46,948,459
OTHER INCOME*	82,065,720	6,214,325	15,712,147	3,394,010	6,136,870	6,008,319	3,843,075	10,795,323	5,469,260	12,649,680	6,878,007	1,605,841	3,358,861
TOTAL INCOME	566,656,469	31,387,269	56,225,850	39,735,144	50,936,601	43,798,267	45,997,081	61,844,941	48,723,535	49,754,850	32,819,091	55,126,518	50,307,320
DIFFERENCE	(301,483,701)	(40,124,787)	(15,695,031)	(31,959,011)	(21,880,402)	(27,083,755)	(24,943,055)	(9,603,648)	(23,046,443)	(21,683,026)	(38,218,103)	(27,280,889)	(19,965,550)

**Municipal Employees Retirement System**

FISCAL YEAR 2017	FY 2016-17												
	TOTAL	Projected June	Projected May	Projected April	Projected March	Actual February	Projected January 2017	Projected December	Projected November	Projected October	Projected September	Actual August	Actual July 2016
MEMBER BENEFITS	94,758,627	7,700,000	7,700,000	7,700,000	7,700,000	7,700,000	7,700,000	7,700,000	7,700,000	7,700,000	7,700,000	10,139,174	7,619,454
ADMINISTRATIVE EXPENSES	2,279,511	303,792	155,113	302,293	285,305	105,032	108,534	321,127	91,498	202,078	198,842	122,026	83,870
INVESTMENT EXPENSES	1,627,486	23,632	259,802	62,628	320,139	83,902	99,556	(1,541)	298,392	113,602	148,855	111,440	107,080
TOTAL OUTFLOW	98,665,625	8,027,424	8,114,915	8,064,921	8,305,444	7,888,934	7,908,089	8,019,586	8,089,891	8,015,680	8,047,697	10,372,640	7,810,403
CONTRIBUTIONS	63,651,670	302,987	4,051,743	4,513,754	5,412,174	4,816,573	5,669,644	5,706,992	6,283,320	4,631,697	7,458,495	7,700,000	7,104,291
OTHER INCOME*	17,911,288	1,345,664	3,393,857	731,070	1,318,966	1,287,012	850,625	2,381,654	1,204,769	2,777,190	1,505,113	361,465	753,901
TOTAL INCOME	81,562,958	1,648,651	7,445,600	5,244,824	6,731,140	6,103,585	6,520,269	8,088,646	7,488,089	7,408,887	8,963,608	8,061,465	7,858,192
DIFFERENCE	(17,102,667)	(6,378,773)	(669,314)	(2,820,097)	(1,574,304)	(1,785,349)	(1,387,820)	69,060	(601,802)	(606,793)	915,911	(2,311,175)	47,789

**CASH FLOW ANALYSIS - INCOME & EXPENSES**

**State Police  
Retirement System**

	TOTAL	Projected June	Projected May	Projected April	Projected March	Actual February	Projected January 2017	Projected December	Projected November	Projected October	Projected September	Actual August	Actual July 2016
<i>MEMBER BENEFITS</i>	<b>4,644,949</b>	385,000	385,000	385,000	385,000	385,000	385,000	385,000	385,000	385,000	385,000	<b>410,224</b>	<b>384,724</b>
<i>ADMINISTRATIVE EXPENSES</i>	<b>189,677</b>	25,127	12,771	24,801	23,304	8,553	9,202	26,978	7,672	16,913	16,596	<b>10,543</b>	<b>7,216</b>
<i>INVESTMENT EXPENSES</i>	<b>135,570</b>	1,955	21,391	5,138	26,150	6,833	8,441	(129)	25,019	9,508	12,424	<b>9,628</b>	<b>9,212</b>
<i>TOTAL OUTFLOW</i>	<b>4,970,195</b>	412,082	419,163	414,940	434,454	400,386	402,643	411,848	417,691	411,421	414,020	<b>430,396</b>	<b>401,152</b>
<i>CONTRIBUTIONS</i>	<b>5,998,895</b>	441,275	393,221	415,000	395,000	485,000	445,000	1,220,000	405,000	412,382	410,000	<b>592,292</b>	<b>384,724</b>
<i>OTHER INCOME*</i>	<b>1,490,632</b>	111,301	279,439	59,980	107,736	104,808	72,121	200,081	101,017	232,436	125,622	<b>31,230</b>	<b>64,861</b>
<i>TOTAL INCOME</i>	<b>7,489,527</b>	552,576	672,660	474,980	502,736	589,808	517,121	1,420,081	506,017	644,818	535,622	<b>623,523</b>	<b>449,585</b>
<i>DIFFERENCE</i>	<b>2,519,331</b>	140,495	253,497	60,040	68,282	189,422	114,478	1,008,233	88,325	233,397	121,602	<b>193,127</b>	<b>48,433</b>

**Judicial  
Retirement System**

	TOTAL	Projected June	Projected May	Projected April	Projected March	Actual February	Projected January 2017	Projected December	Projected November	Projected October	Projected September	Actual August	Actual July 2016
<i>MEMBER BENEFITS</i>	<b>2,764,181</b>	230,000	230,000	230,000	230,000	230,000	230,000	230,000	230,000	230,000	230,000	<b>236,341</b>	<b>227,841</b>
<i>ADMINISTRATIVE EXPENSES</i>	<b>98,128</b>	12,912	6,598	12,804	12,022	4,410	4,768	14,034	3,987	8,786	8,616	<b>5,442</b>	<b>3,748</b>
<i>INVESTMENT EXPENSES</i>	<b>70,176</b>	1,004	11,051	2,653	13,490	3,523	4,373	(67)	13,004	4,939	6,450	<b>4,969</b>	<b>4,786</b>
<i>TOTAL OUTFLOW</i>	<b>2,932,485</b>	243,917	247,649	245,457	255,512	237,934	239,141	243,966	246,991	243,726	245,066	<b>246,752</b>	<b>236,375</b>
<i>CONTRIBUTIONS</i>	<b>3,604,296</b>	291,448	263,142	280,000	270,000	270,000	280,000	430,000	290,000	290,000	280,000	<b>431,866</b>	<b>227,841</b>
<i>OTHER INCOME*</i>	<b>771,878</b>	57,197	144,363	30,965	55,579	54,043	37,366	104,081	52,503	120,750	65,217	<b>16,119</b>	<b>33,694</b>
<i>TOTAL INCOME</i>	<b>4,376,174</b>	348,645	407,505	310,965	325,579	324,043	317,366	534,081	342,503	410,750	345,217	<b>447,984</b>	<b>261,534</b>
<i>DIFFERENCE</i>	<b>1,443,689</b>	104,728	159,856	65,509	70,067	86,110	78,225	290,115	95,512	167,025	100,151	<b>201,233</b>	<b>25,160</b>

\*includes income from Real Estate Investments, Private Equity, and Cash Accounts

FISCAL YEAR 2017

DIRECT BILLED INVESTMENT MANAGER FEES, PROFESSIONAL FEES & OPERATING EXPENSES

ERSRI & MERSRI

ACCRUAL BASIS

	Projected Jul 16	Projected Aug	Projected Sept	Projected Oct	Projected Nov	Projected Dec	Projected Jan 17	Projected Feb	Projected Mar	Projected Apr	Projected May	Projected June	Projected TOTAL
<b>EQUITIES US</b>													
SSGA Russell 3000			42,000			42,000			42,000			42,000	168,000
Shott Capital/Hamilton Lane			30,000			1,000			1,000			1,000	33,000
SSGA QVM Tilt			<u>70,000</u>			<u>70,000</u>			<u>70,000</u>			<u>70,000</u>	<u>280,000</u>
			142,000			113,000			113,000			119,800	207,800
<b>FIXED INCOME</b>													
Pyramis			180,000			180,000			180,000			180,000	720,000
Mackay Shields			180,000			180,000			180,000			180,000	720,000
Brown Bros.TIPS/GILB			<u>84,000</u>			<u>84,000</u>			84,000			<u>84,000</u>	<u>336,000</u>
			444,000			444,000			444,000			444,000	1,776,000
<b>INT'L EQUITIES</b>													
SSGA MSCI EAFE			65,000			65,000			65,000			65,000	260,000
SSGA MSCI CAD			8,000			8,000			8,000			8,000	32,000
SSGA MSCI Emerg Mkts			<u>80,000</u>			<u>80,000</u>			80,000			<u>80,000</u>	<u>320,000</u>
			153,000			153,000			153,000			153,000	612,000
<b>CREDIT</b>													
WAMCO			100,000			100,000			100,000			100,000	400,000
PIMCO			<u>130,000</u>			<u>130,000</u>			130,000			<u>130,000</u>	<u>520,000</u>
			230,000			230,000			230,000			230,000	920,000
<b>Infrastructure</b>													
Harvest Partners			220,000			220,000			220,000			220,000	880,000
<b>REAL ESTATE</b>													
Direct Billed Real Estate	<b>331,011</b>	<b>192,928</b>	449,048	480,045	174,409	0	493,165	91,634	0	79,200	104,358	0	2,395,798
<b>ALTERNATIVE INVESTMENTS</b>													
Direct Billed Private Equity	<b>267,199</b>	<b>428,254</b>	398,963	165,487	1,516,731	(8,723)	69,034	507,595	1,245,019	673,084	1,231,877	135,737	6,630,258
<b>SUB TOTAL-INV MGMT FEES</b>	<b>598,210</b>	<b>621,182</b>	<b>2,037,011</b>	<b>645,532</b>	<b>1,691,140</b>	<b>1,151,277</b>	<b>562,199</b>	<b>599,228</b>	<b>2,405,019</b>	<b>752,284</b>	<b>1,336,235</b>	<b>1,302,537</b>	<b>13,421,855</b>
<b>PROFESSIONAL FEES</b>													
Legal	<b>3,488</b>	0	2,665	12,190	8,418	3,357	0	7,964	18,469	12,347	5,960	9,763	84,620
BNY Mellon - Custodial	33,000	33,000	33,000	33,000	33,000	33,000	33,000	33,000	33,000	33,000	33,000	33,000	396,000
Cliffwater	<b>37,500</b>	37,500	37,500	37,500	37,500	37,500	37,500	37,500	37,500	37,500	37,500	37,500	450,000
PCA/Russell	<b>14,583</b>	14,583	61,776	14,583	33,333	63,695	14,583	14,583	82,263	14,583	14,583	33,333	376,483
PCA Real Estate	<u><b>10,417</b></u>	<u>10,417</u>	<u>125,004</u>										
	98,988	95,500	145,357	107,690	122,668	147,969	95,500	103,464	181,650	107,848	101,460	124,013	1,432,107
<b>OPERATING EXPENSE</b>													
Retirement Transfers	<b>359,498</b>	584,691	701,368	677,969	330,009	1,625,828	512,091	865,046	920,987	823,990	442,116	1,303,711	<u>9,147,305</u>
Other Expense	0	0	0	<u>1,125</u>	0	<u>38,335</u>	<u>1,625</u>	0	<u>49,974</u>	0	0	<u>1,000</u>	<u>92,059</u>
	359,498	584,691	701,368	679,094	330,009	1,664,163	513,716	865,046	970,961	823,990	442,116	1,304,711	9,239,364
<b>TOTAL:</b>	<b>1,056,696</b>	<b>1,301,373</b>	<b>2,883,736</b>	<b>1,432,316</b>	<b>2,143,817</b>	<b>2,963,409</b>	<b>1,171,416</b>	<b>1,567,738</b>	<b>3,557,630</b>	<b>1,684,122</b>	<b>1,879,811</b>	<b>2,731,261</b>	<b>24,093,326</b>

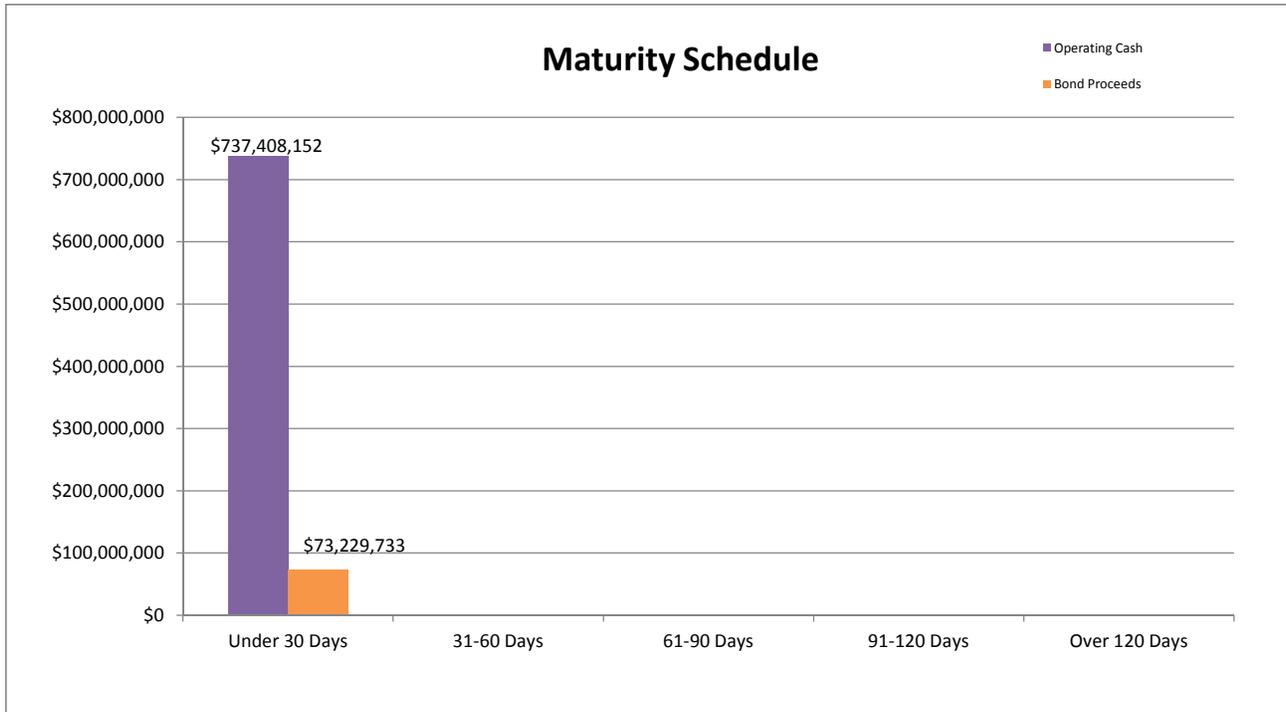
Note: Numbers in bold are actual.

## Section XII.

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### Short-Term Investments

**Short-Term Investment Maturity Schedule & SIC Compliance Report at August 31, 2016**



Vendor	CP	CD	Agency	Money Mkt	PIP	Repo	GID	OSIP	Total (\$)
Guidelines-Total/Vendor	25%/10%	50%/20%	75%/35%	75%/35%	75%/35%	100%/20%	75%/35%	50%/50%	
OSIP	0	0	0	0	0	0	0	308,609,831	308,609,831
	0%	0%	0%	0%	0%	0%	0%	42%	42%
Bank RI	0	15,257,351	0	15,088,881	0	0	0	0	30,346,232
	0%	2%	0%	2%	0%	0%	0%	0%	4%
Santander Bank	0	0	0	0	171,244,794	0	0	0	171,244,794
	0%	0%	0%	0%	23%	0%	0%	0%	23%
Citizens Bank	0	0	0	0	65,080,953	0	0	0	65,080,953
	0%	0%	0%	0%	9%	0%	0%	0%	9%
Webster Bank	0	0	0	0	4,873,577	0	0	0	4,873,577
	0%	0%	0%	0%	1%	0%	0%	0%	1%
Customers Bank	0	0	0	0	83,961,938	0	0	0	83,961,938
	0%	0%	0%	0%	11%	0%	0%	0%	11%
Washington Trust	0	0	0	60,718,645	0	0	0	0	60,718,645
	0%	0%	0%	8%	0%	0%	0%	0%	8%
TD Bank	0	0	0	0	12,572,184	0	0	0	12,572,184
	0%	0%	0%	0%	2%	0%	0%	0%	2%
<b>TOTALS</b>	-	15,257,351	-	75,807,525	337,733,445	-	-	308,609,831	737,408,152
<b>(%) PORTFOLIO</b>	<b>0.00%</b>	<b>2.07%</b>	<b>0.00%</b>	<b>10.28%</b>	<b>45.80%</b>	<b>0.00%</b>	<b>0.00%</b>	<b>41.85%</b>	<b>100.00%</b>

Note: PIP + CD must be under 75%.

Note: Maximum participation by any one vendor limited to 35% of total portfolio.

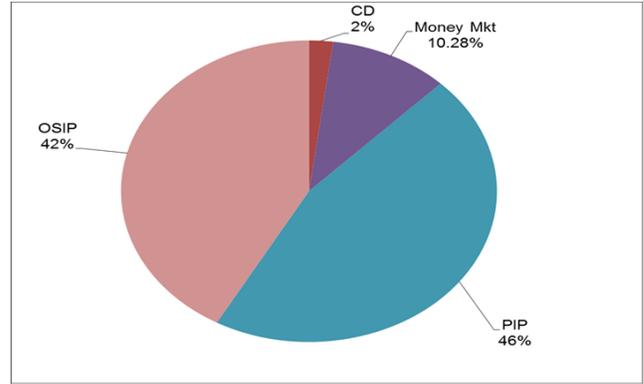
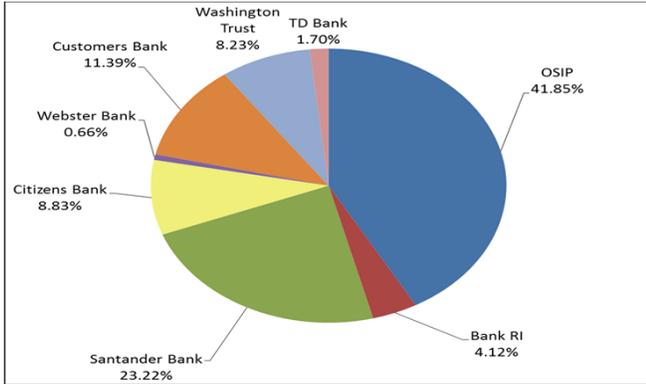
**State of Rhode Island**  
**Short Term Cash Monthly Performance**  
**Performance for**  
**August 01, 2016 to August 31, 2016**

<b>Fund Name</b>	<b>Beginning Balance</b>	<b>Ending Balance</b>	<b>Average Daily Balance</b>	<b>Earnings</b>	<b>Yield(Annual)</b>
GENERAL FUND	\$ 415,582,112.29	\$ 440,832,611.39	\$ 470,830,499.39	\$ 273,167.23	0.5165%
H.A.V.A	\$ 296.96	\$ 297.09	\$ 296.96	\$ 0.13	0.5154%
GENERAL FUND (HIST PRES)	\$ 540,441.44	\$ 540,441.44	\$ 540,441.44	\$ 245.92	0.5358%
HISTORIC TAX CREDITS	\$ 2,918,607.50	\$ 2,918,820.72	\$ 2,918,607.50	\$ 1,312.20	0.5294%
HIGHWAY FUND	\$ 48,775,465.15	\$ 44,275,465.15	\$ 43,436,755.47	\$ 19,190.95	0.5202%
T.D.I. RESERVE (DET)	\$ 92,579,532.95	\$ 119,891,748.87	\$ 140,281,961.52	\$ 56,300.68	0.4085%
RICAP GL FUND 21	\$ 43,894,889.26	\$ 38,899,330.98	\$ 41,989,906.25	\$ 14,213.53	0.3954%
BOND CAPITAL FUND	\$ 61,935.31	\$ 61,951.44	\$ 61,935.31	\$ 24.01	0.4564%
R.I. CLEAN WATER ACT	\$ 3,198,567.65	\$ 3,198,940.65	\$ 3,198,567.65	\$ 1,427.70	0.5255%
STATE LOTTERY FUND	\$ 49,133,473.77	\$ 53,036,020.98	\$ 69,330,229.00	\$ 39,770.89	0.5132%
ASSESSED FRINGE BEN ADM	\$ 1,614,725.51	\$ 415,073.49	\$ 1,124,402.93	\$ 485.72	0.5086%
AUTO EQUIPMENT SERVICE	\$ 1,252.43	\$ 1,252.96	\$ 1,252.43	\$ 0.53	0.4983%
HEALTH INSURANCE FUND	\$ 17,629,348.56	\$ 24,631,478.27	\$ 22,145,477.59	\$ 9,918.49	0.5273%
FLEET REVOLVING LOAN FUND	\$ 3,762,955.84	\$ 3,762,956.90	\$ 3,762,955.84	\$ 1,243.24	0.3890%
EMPLOYEES RETIREMENT	\$ 1,239,465.37	\$ 9,465.37	\$ 23,200,846.35	\$ 9,825.24	0.4986%
MUNICIPAL EMPLOYEES RET.	\$ 384,839.85	\$ 84,839.85	\$ 4,313,872.11	\$ 1,825.27	0.4982%
RETIREE HEALTH FUND	\$ 240,734.50	\$ 240,760.31	\$ 240,734.50	\$ 107.62	0.5264%
BOG RETIREE FUND	\$ 62,811.93	\$ 62,812.03	\$ 62,811.93	\$ 28.58	0.5357%
RIPTA HEALTH FUND	\$ 35,905.23	\$ 35,905.23	\$ 35,905.23	\$ 16.35	0.5362%
PERMANENT SCHOOL FUND	\$ 1,944,824.89	\$ 1,944,825.19	\$ 1,944,824.89	\$ 884.97	0.5358%
TEACHER RETIREE HEALTH FUND	\$ 579,190.41	\$ 579,377.04	\$ 579,190.41	\$ 249.66	0.5075%
RI ST POL RETIREE HEALTH	\$ 123,794.00	\$ 123,845.12	\$ 123,794.00	\$ 52.53	0.4996%
RI LEG RETIREE HEALTH	\$ 90,719.71	\$ 90,758.13	\$ 90,719.71	\$ 38.42	0.4986%
RI JUDICIAL RETIREE HEALTH	\$ 40,435.88	\$ 40,453.00	\$ 40,435.88	\$ 17.43	0.5075%
UNIVERSITY COLLEGE	\$ 12,209.88	\$ 12,210.92	\$ 12,209.88	\$ 5.48	0.5284%
INDUS. BLDG. & MTG. INS.	\$ 1,716,508.31	\$ 1,716,508.33	\$ 1,716,508.31	\$ 781.08	0.5358%
<b>Operating Funds Totals</b>	<b>\$ 686,165,044.58</b>	<b>\$ 737,408,150.85</b>	<b>\$ 831,985,142.48</b>	<b>\$ 347,195.48</b>	<b>0.491%</b>
CCDL 2004 SERIES A	\$ 35,019.20	\$ 35,004.30	\$ 35,012.47	\$ 15.92	0.5354%
BOND CCDL 2006 SERIES C	\$ 874,186.11	\$ 873,814.04	\$ 874,018.08	\$ 397.62	0.5356%
GO BND-NTAX 2007 SERIES A	\$ 389,753.44	\$ 389,587.55	\$ 389,678.52	\$ 177.28	0.5357%
CCDL10B BOND CAPITAL COMPONENT	\$ 950,404.51	\$ 950,000.00	\$ 950,221.83	\$ 432.30	0.5357%
CCDL10C	\$ 159,958.74	\$ 159,958.74	\$ 159,958.74	\$ 72.79	0.5358%
CCDL2011A	\$ 6,617,944.57	\$ 6,615,127.86	\$ 6,616,672.51	\$ 3,010.15	0.5356%
CCDL2012B	\$ 6,295,209.40	\$ 6,292,530.05	\$ 6,293,999.37	\$ 2,863.35	0.5356%
GO CCDL 2013A	\$ 5,219,224.77	\$ 5,217,003.38	\$ 5,218,221.56	\$ 2,373.93	0.5356%
GO CCDL 2013B	\$ 6,252,661.24	\$ 6,250,000.00	\$ 6,251,459.39	\$ 2,844.00	0.5356%
GO CCDL 2014A	\$ 3,360,941.05	\$ 3,359,510.58	\$ 3,360,295.03	\$ 1,528.72	0.5357%
GO CCDL 2014B	\$ 40,681.58	\$ 40,664.27	\$ 40,673.76	\$ 18.50	0.5355%
GO CCDL 2016A	\$ 34,474,393.43	\$ 34,448,669.38	\$ 34,456,719.71	\$ 15,675.51	0.5356%
GO CCDL 2016B	\$ 6,730,642.78	\$ 6,725,312.40	\$ 6,726,884.19	\$ 3,060.28	0.5356%
CLEAN WATER 2004 SERIES A	\$ 175,545.93	\$ 146,728.71	\$ 150,478.40	\$ 68.47	0.5357%
CCDL99A 1999A	\$ 206,657.35	\$ 206,569.39	\$ 206,617.63	\$ 93.99	0.5356%
CLEAN WATER 2007 SERIES A	\$ 283,372.67	\$ 283,252.06	\$ 283,318.20	\$ 128.89	0.5356%
CCDL2011A CLEAN WATER COMPONENT	\$ 1,236,526.29	\$ 1,236,000.00	\$ 1,236,288.61	\$ 562.44	0.5357%
<b>Bond Proceeds Fund Totals</b>	<b>\$ 73,303,123.06</b>	<b>\$ 73,229,732.71</b>	<b>\$ 73,250,518.00</b>	<b>\$ 33,324.14</b>	<b>0.536%</b>
<b>Grand Totals</b>	<b>\$ 759,468,167.64</b>	<b>\$ 810,637,883.56</b>	<b>\$ 905,235,660.48</b>	<b>\$ 380,519.62</b>	<b>0.497%</b>

**State of Rhode Island  
Office of the General Treasurer  
Short Term Investments**

**Issuer Credit Rating  
August 31, 2016**

Issuer	Type of Instrument*	Month End % Portfolio	Issuer Ratings		S-T Debt Rating		L-T Debt Rating		Credit Outlook
			Moody's		Moody's	S&P	Moody's	S&P	S&P
Bank RI	3,4	4.1%	N/R		N/A	N/A	N/A	N/A	N/A
Santander Bank	3,4	23.2%	Baa2		P-1	A-2	A2	BBB+	Stable
Bank of America		0.0%	Baa1		P-2	A-2	Baa1	BBB+	Stable
JP Morgan Chase		0.0%	A3		P-2	A-2	A3	A-	Stable
Fidelity		0.0%	N/R		N/A	N/A	N/A	N/A	N/A
State Street Bank & Trust Company		0.0%	Aa3		P-1	A-1+	Aa1	AA-	Stable
RBS Citizens	3,4	8.8%	Baa1		P-2	A-2	A1	A-	Stable
Webster Bank	3,4	0.7%	Baa1		P-1	A-2	A1	BBB+	Positive
Ocean State Investment Pool	6	41.9%	N/R		N/A	N/A	N/A	N/A	N/A
Washington Trust	3,7	8.2%	N/R		N/A	N/A	N/A	N/A	N/A
TD Bank	3	1.7%	Aa1		P-1	A-1+	Aa1	AA-	Negative
Customers Bank	4	11.4%	N/R		N/A	N/A	N/A	N/A	N/A



REPO = Repurchase Agreement	1*
CP = Commercial Paper	2*
CD = Certificate of Deposit	3*
CoD = Collateralized Deposit	4*
AG = US Government Agency Note	5*
MM = Government Money Market	6*
GID = Government Insured Deposit	7*

**Ratings Definitions**

**Moody's Short-Term Debt Ratings:**

**P-1** - Prime-1 have a superior ability for repayment of sr. S-T debt obligations  
**P-2** - Prime-1 have a strong ability for repayment of sr. S-T debt obligations  
**P-3** - Prime-1 have an acceptable ability for repayment of sr. S-T debt obligations  
**NP** - Not Prime

**Moody's Issuer Rating Symbols:**

**Aaa** - Offer exceptional financial security (high-grade)  
**Aa** - Offer excellent financial security (high-grade)  
**A** - Offer good financial security  
**Baa** - Offer adequate financial security  
**Ba** - Offer questionable financial security  
**B** - Offer poor financial security  
**Caa** - Offer very poor financial security  
**Ca** - Offer extremely poor financial security  
**C** - Lowest rated class, usually in default

**Moody's Long-Term Debt Ratings:**

**Aaa** - Best Quality  
**Aa** - High Quality  
**A** - Possess many favorable investment attributes  
**Baa** - Medium-grade obligations  
**Ba** - Possess speculative elements  
**B** - Generally lack characteristics of desirable investments  
**Caa** - Poor standing  
**Ca** - Speculative in a high degree  
**C** - Lowest rated class of bonds

**Modifiers:**

**1** - Higher end of letter rating category  
**2** - Mid-range of letter rating category  
**3** - Lower end of letter rating category

**S&P Short-Term Credit Ratings:**

**A-1** - Highest rated, strong capacity to meet obligations  
**A-2** - Somewhat more susceptible to adverse effects of changes in financial conditions; satisfactory  
**A-3** - Exhibits adequate protection parameters  
**B** - Significant speculative characteristics, faces major ongoing uncertainties  
**C** - Vulnerable to non-payment  
**D** - Payment default

**Modifiers:**

+ or - show relative standing within the category.

**S&P Outlook Definitions:**

**Positive** - A rating may be raised  
**Negative** - A rating may be lowered  
**Stable** - A rating is not likely to change  
**Developing** - May be raised or lowered  
**NM** - Not meaningful

**S&P Long-Term Debt Ratings:**

**AAA** - Highest rating, extremely strong  
**AA** - Differs slightly from highest rating, very strong  
**A** - More susceptible to adverse effects of change in economic condition, strong  
**BBB** - Exhibits adequate protection parameters  
**BB, B,** - Have significant speculative characteristics. BB least speculative  
**CCC, CC, C** - C highest degree  
**D** - Payment default

**Modifiers:**

+ or - show relative standing within the category.

## Section XIII.

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### Defined Contribution Plan

# 2016 YTD Performance Summary

(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)	(K)	(L)	(M)	(N)	(O)	(P)	(Q)	(R)	(S)	(T)	(U)	(V)	(W)	(X)	(Y)	
TIAA AS of 8/31/16	Mgr.	AUM	Gross	Net	Net	Rev	Recent Returns		Annualized Total Returns as of 6/30/2016								Since	Incep.	Sharpe Ratio		Std. Deviation		Tracking		
	Ticker	Tenure	\$ Millions	ER	ER	%-ile	Share	1mo.	YTD	1 Year	%-ile	3 Year	%-ile	5 Year	%-ile	10 Year	%-ile	Incep.	Date	3 Year	%-ile	3 Year	%-ile	Error	
TIAA Stable Value****								0.16	1.26	1.85		1.88						1.87	03/31/12						
<b>FIXED INCOME</b>																									
<b>Intermediate-Term Bond</b>																									
Vanguard Total Bond Market Index Adm	VBTLX	3.42	168,405.83	0.06	0.06	2	0.00	(0.16)	6.04	6.12	9	4.03	27	3.73	48	5.12	41	4.59	11/12/01	1.39	42	2.81	72	0.26	
<i>Barclays U.S. Aggregate Float Adjusted Index</i>								(0.13)	6.09	6.00		4.06		3.76		5.13				1.49		2.66			
<i>Intermediate-Term Bond Median</i>				0.86	0.75			0.02	5.90	4.82		3.69		3.72		4.99				1.36		2.66		0.90	
<i>Intermediate-Term Bond Number of Funds</i>				1,119	1,119						1089		1042		1004		871				1044		1044		
<b>Inflation-Linked Bond</b>																									
PIMCO Real Return Instl	PRRIX	8.58	11,085.47	0.50	0.45	22	0.00	(0.28)	6.72	3.31	38	1.86	23	2.36	10	4.89	2		01/29/97	0.37	45	5.08	93	1.38	
<i>Barclays US Treasury US TIPS TR USD</i>								(0.45)	6.68	4.35		2.31		2.63		4.75				0.54		4.27			
<i>Inflation-Protected Bond Median</i>				0.85	0.73			(0.37)	5.94	2.87		1.42		1.75		4.03				0.35		4.21		0.78	
<i>Inflation-Protected Bond Number of Funds</i>				262	262						259		243		211		152				243		243		
<b>Equity</b>																									
<b>Large Cap Blend</b>																									
Vanguard Institutional Index I	VINIX	15.58	203,600.27	0.04	0.04	1	0.00	0.14	7.80	3.97	15	11.63	9	12.07	9	7.43	17	9.38	07/31/90	1.03	9	11.25	32	0.01	
<i>S&amp;P 500 TR USD</i>								0.14	7.82	3.99		11.66		12.10		7.42				1.03		11.26			
TIAA-CREF Social Choice Eq Instl	TISCX	10.58	2,696.60	0.18	0.18	4	0.00	0.77	9.09	2.12	34	9.39	58	10.47	51	7.00	31		07/01/99	0.83	58	11.53	54	0.94	
<i>Russell 3000 TR USD</i>								0.26	8.01	2.14		11.13		11.60		7.40				0.97		11.47			
<i>Large Blend Median</i>				1.10	1.00			0.14	6.43	0.28		9.85		10.54		6.59				0.87		11.48		2.45	
<i>Large Blend Number of Funds</i>				1,636	1,636						1,571		1,501		1,380		1,198				1,503		1,503		
<b>Mid Cap Blend</b>																									
Vanguard Mid Cap Index Adm	VIMAX	18.17	68,967.48	0.08	0.08	3	0.00	0.16	8.50	(0.89)	35	10.77	8	10.56	9	7.80	24	9.49	11/12/01	0.91	8	12.02	30	0.03	
<i>Spliced Mid Cap Index *</i>								0.16	8.50	(0.87)		10.82		10.61		7.84						12.03			
<i>CRSP US Mid Cap TR USD</i>								0.16	8.50	(0.87)		10.82		10.77		7.87				0.91		12.03			
<i>Mid-Cap Blend Median</i>				1.25	1.17			0.51	8.58	(3.04)		8.33		8.62		6.71				0.70		12.44		3.76	
<i>Mid-Cap Blend Number of Funds</i>				457	457						430		402		365		320				403		403		
<b>Small Cap Blend</b>																									
Vanguard Small Cap Index Adm	VSMAX	0.25	58,319.76	0.08	0.08	1	0.00	0.64	11.05	(2.90)	28	8.94	16	9.90	16	7.75	10	8.47	11/13/00	0.69	13	13.65	23	0.04	
<i>Spliced Small Cap Index **</i>								0.62	11.02	(2.91)		8.93		9.87		7.68						13.64			
<i>CRSP US Small Cap TR USD</i>								0.62	11.02	(2.91)		8.93		10.04		8.20				0.69		13.64			
<i>Small Blend Median</i>				1.36	1.22			1.32	9.44	(6.39)		7.06		8.21		5.79				0.54		14.40		3.60	
<i>Small Blend Number of Funds</i>				870	870						824		746		684		579				753		753		
<b>Foreign Large Blend</b>																									
TIAA-CREF International Eq Idx Instl	TCIEX	10.92	6,849.33	0.06	0.06	1	0.00	0.47	1.37	(9.59)	40	2.37	35	1.92	26	1.78	36		10/01/02	0.24	36	12.94	66	1.98	
<i>MSCI EAFE NR USD</i>								0.07	0.49	(10.16)		2.06		1.68		1.58				0.21		13.29			
<i>Foreign Large Blend Median</i>				1.32	1.15			0.53	1.18	(10.25)		1.87		1.19		1.35				0.20		12.70		3.43	
<i>Foreign Large Blend Number of Funds</i>				925	925						851		790		729		545				790		790		

# 2016 YTD Performance Summary

(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)	(K)	(L)	(M)	(N)	(O)	(P)	(Q)	(R)	(S)	(T)	(U)	(V)	(W)	(X)	(Y)					
TIAA As of 8/31/16	Mgr.		AUM	Gross	Net	Net	Rev	Recent Returns		Annualized Total Returns as of 6/30/2016								Since	Incep.	Sharpe Ratio		Std. Deviation		Tracking					
	Ticker	Tenure	\$ Millions	ER	ER	%-ile	Share	1mo.	YTD	1 Year	%-ile	3 Year	%-ile	5 Year	%-ile	10 Year	%-ile	Incep.	Date	3 Year	%-ile	3 Year	%-ile	3 Year					
<b>Diversified Emerging Markets</b>																													
Vanguard Emerging Mkts Stock Idx Adm	VEMAX	7.92	54,366.83	0.15	0.15	1	0.00	1.70	14.74	(12.11)	71	(0.75)	38	(3.53)	54	3.54	42	4.19	06/23/06	0.03	35	16.77	86						
								<i>Spliced Emerging Markets Index ***</i>																					
								<i>FTSE Emerging NR USD</i>																					
								<i>MSCI EM NR USD</i>																					
				<i>Diversified Emerging Mkts Median</i>																						4.99			
				<i>Diversified Emerging Mkts Number of Funds</i>		939		939				887		652		506		274				667		667					
<b>Miscellaneous Sector</b>																													
TIAA Real Estate Account	VA	0.92	23,672.32	0.89	0.89		0.24	0.01	3.61	6.96		9.55		9.67		3.74			10/02/95	6.91		1.30							
<b>Lifecycle</b>																													
Vanguard Target Retirement Income Trust II				0.08	0.08		0.00	0.03	6.02	3.37		5.00		5.05				4.90	02/29/08										
<i>Vanguard Target Retirement Income Compos. Lx</i>																													
<i>Retirement Income Median</i>																													
<i>Retirement Income Number of Funds</i>								200		200		193		167		155		87						171		171			
Vanguard Target Retirement 2010 Trust II				0.08	0.08		0.00	0.03	6.01	2.99		5.58		5.59				5.06	02/29/08										
<i>Vanguard Target Retirement 2010 Compos. Lx</i>																													
<i>Target Date 2000-2010 Median</i>																													
<i>Target Date 2000-2010 Number of Funds</i>								127		127		123		106		100		51						106		106			
Vanguard Target Retirement 2015 Trust II				0.08	0.08		0.00	0.14	6.43	2.08		6.29		6.23				5.37	02/29/08										
<i>Vanguard Target Retirement 2015 Compos. Lx</i>																													
<i>Target Date 2011-2015 Median</i>																													
<i>Target Date 2011-2015 Number of Funds</i>								173		173		161		134		116		23						134		134			
Vanguard Target Retirement 2020 Trust II				0.08	0.08		0.00	0.21	6.83	1.56		6.86		6.74				5.52	02/29/08										
<i>Vanguard Target Retirement 2020 Compos. Lx</i>																													
<i>Target Date 2016-2020 Median</i>																													
<i>Target Date 2016-2020 Number of Funds</i>								267		267		248		210		187		88						214		214			
Vanguard Target Retirement 2025 Trust II				0.08	0.08		0.00	0.25	6.94	0.92		7.13		7.01				5.55	02/29/08										
<i>Vanguard Target Retirement 2025 Composite Lx</i>																													
<i>Target Date 2021-2025 Median</i>																													
<i>Target Date 2021-2025 Number of Funds</i>								228		228		216		184		156		34						184		184			
Vanguard Target Retirement 2030 Trust II				0.08	0.08		0.00	0.29	6.92	0.19		7.36		7.26				5.54	02/29/08										
<i>Vanguard Target Retirement 2030 Composite Lx</i>																													
<i>Target Date 2026-2030 Median</i>																													
<i>Target Date 2026-2030 Number of Funds</i>								267		267		248		187		187		88						214		214			
Vanguard Target Retirement 2035 Trust II				0.08	0.08		0.00	0.33	6.93	(0.49)	7	7.58		7.51				5.66	02/29/08										
<i>Vanguard Target Retirement 2035 Composite Lx</i>																													
<i>Target Date 2031-2035 Median</i>																													
<i>Target Date 2031-2035 Number of Funds</i>								228		228		216		184		156		34						184		184			

# 2016 YTD Performance Summary

(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)	(K)	(L)	(M)	(N)	(O)	(P)	(Q)	(R)	(S)	(T)	(U)	(V)	(W)	(X)	(Y)
As of 8/31/16	Mgr. Ticker	Tenure	AUM \$ Millions	Gross ER	Net ER	Net %ile	Rev Share	Recent Returns		Annualized Total Returns as of 6/30/2016								Since Incep.	Incep. Date	Sharpe Ratio		Std. Deviation		Tracking Error
								1mo.	YTD	1 Year	%ile	3 Year	%ile	5 Year	%ile	10 Year	%ile			3 Year	%ile	3 Year	%ile	
Vanguard Target Retirement 2040 Trust II				0.08	0.08		0.00	0.40	6.95	(1.33)		7.62		7.64				5.78	02/29/08					
Vanguard Target Retirement 2040 Composite Lx								0.29	6.89	(1.29)		7.78		7.86										
Target Date 2036-2040 Median				1.20	0.96			0.28	6.31	(2.03)		6.45		6.41		4.54				0.66		10.14		1.68
Target Date 2036-2040 Number of Funds				267	267						248		210		187		88				214		214	
Vanguard Target Retirement 2045 Trust II				0.08	0.08		0.00	0.40	6.95	(1.40)		7.60		7.63				5.74	02/29/08					
Vanguard Target Retirement 2045 Composite Lx								0.30	6.92	(1.35)		7.76		7.85										
Target Date 2041-2045 Median				1.21	0.94			0.30	6.29	(2.42)		6.61		6.56		4.59				0.65		10.48		1.65
Target Date 2041-2045 Number of Funds				228	228						216		184		149		28				184		184	
Vanguard Target Retirement 2050 Trust II				0.08	0.08		0.00	0.39	6.96	(1.47)		7.57		7.61				5.76	02/29/08					
Vanguard Target Retirement 2050 Composite Lx								0.30	6.92	(1.35)		7.76		7.85										
Target Date 2046-2050 Median				1.31	0.98			0.29	6.35	(2.43)		6.64		6.57		4.53				0.66		10.56		1.56
Target Date 2046-2050 Number of Funds				257	257						238		200		173		23				204		204	
Vanguard Target Retirement 2055 Trust II				0.08	0.08		0.00	0.40	7.00	(1.48)		7.54						10.72	08/31/10					
Vanguard Target Retirement 2055 Composite Lx								0.30	6.92	(1.35)		7.76												
Target Date 2051-2055 Median				1.39	0.95			0.32	6.28	(2.62)		6.77												
Target Date 2051-2055 Number of Funds				225	225						211		141											
Vanguard Target Retirement 2060 Trust II				0.08	0.08		0.00	0.37	6.99	(1.46)		7.55						8.39	03/01/12					
Vanguard Target Retirement 2060 Composite Lx								0.30	6.92	(1.35)		7.76												
Target Date 2060+ Median				1.95	0.89			0.30	6.13	(2.34)		6.66								0.62		10.71		1.48
Target Date 2060+ Number of Funds				148	148						80		8								152		152	

Source: Morningstar & TIAA-CREF

Morningstar Analyst Assigned Benchmark\*

Data for 1-month and YTD return as of 8/31/2016. All other data as of 6/30/2016

VA = Variable Annuity

Since Incep. = Since Inception Da Incep. Date = Inception Date

Vanguard Index Information from available at <http://www.vanguard.com>

\* = S&P MidCap 400 Index through May 16, 2003; the MSCI US Mid Cap 450 Index through January 30, 2013; and the CRSP US Mid Cap Index thereafter

\*\* = Russell 2000 Index through May 16, 2003; the MSCI US Small Cap 1750 Index through January 30, 2013; and the CRSP US Small Cap Index thereafter

\*\*\* = Spliced Emerging Markets Index reflects performance of the Select Emerging Markets Index through August 23, 2006; the MSCI Emerging Markets Index through January 9, 2013; FTSE Emerging Transition Index through June 27, 2013;

FTSE Emerging Index; As of November 2, 2105 FTSE Emerging Markets ALL Cap China A Transition Index thereafter.

\*\*\*\* = The TIAA Stable Value Inception Date represents the date that the plan's TIAA Stable Value record was initiated on TIAA-CREF's recordkeeping system which may be earlier than the date of first deposit to the contract.

"Since Inception" performance is calculated from this date.

\*\*\*\*\* = For definitions please visit [www.tiaa-cref.org/public/assetmanagement](http://www.tiaa-cref.org/public/assetmanagement)

Note: Rankings shown for returns are calculated by Morningstar. Rankings for expense ratio, Sharpe ratio and standard deviation are calculated by TIAA-CREF and may differ based on calculation methods

Fee Disclosures: 1 The net expense ratio reflects total annual fund operating expenses excluding interest expense. If interest expense was included, returns would have been lower.

2 Accumulations in mutual funds not managed by TIAA-CREF may be subject to administrative charges. These charges are subject to change. Please review current documents related to your plan.

· %-ile --> Percentile Ranking in Morningstar Category.

**The performance data quoted represents past performance and is no guarantee of future results. Your returns and the principal value of your investments will fluctuate so that your shares or accumulation units, when redeemed, may be worth more or less than their original cost. Current performance may be lower or higher than the performance quoted below. For performance current to the most recent month-end, visit the TIAACREF Website at [www.tiaa-cref.org](http://www.tiaa-cref.org), or call 877 518-9161.**

Annuity account options are available through annuity contracts issued by TIAA or CREF. These contracts are designed for retirement or other long-term goals, and offer a variety of income options, including lifetime income. Payments from the variable annuity accounts are not guaranteed and will rise or fall based on investment performance.

For the variable annuity accounts, we estimate expenses for the plan year based on projected expense and asset levels. Differences between estimated and actual expenses are adjusted quarterly and reflected in current investment results. Historically, the adjusting payments have resulted in both upward and downward adjustments.

Investing in non-investment grade securities presents special risks, including significantly higher interest-rate and credit risk.

Small-cap and mid-cap stocks may have limited marketability and may be subject to more abrupt or erratic market movements than large-cap stocks.

The risks associated with foreign investments are often magnified in emerging markets where there is greater potential for political, currency, and economic volatility.

Funds that invest in fixed-income securities are not guaranteed and are subject to interest-rate, inflation and credit risks.

Funds that invest in foreign securities are subject to special risks, including currency fluctuation and political and economic instability.

Real estate securities are subject to various risks, including fluctuations in property values, higher expenses or lower income than expected, and potential environmental problems and liability.

Any guarantees under annuities issued by TIAA are subject to TIAA's claims-paying ability. TIAA Stable Value is guaranteed insurance contract and not an investment for Federal Securities Law purposes.

Target Date Funds share the risks associated with the types of securities held by each of the underlying funds in which they invest. In addition to the fees and expenses associated with the Target Date Funds, there is exposure to the fees and expenses associated with the underlying mutual funds as well.

TIAA-CREF Individual & Institutional Services, LLC, Teachers Personal Investors Services, Inc., and Nuveen Securities, LLC, Members FINRA and SIPC, distribute securities products. Annuity contracts and certificates are issued by Teachers Insurance and Annuity Association of America (TIAA) and College Retirement Equities Fund (CREF), New York, NY. Each is solely responsible for its own financial condition and contractual obligations.

**Investment, insurance and annuity products are not FDIC insured, are not bank guaranteed, are not deposits, are not insured by any federal government agency, are not a condition to any banking service or activity, and may lose value.**

**You should consider the investment objectives, risks, charges and expenses carefully before investing. Please call 877 518-9161 or log on to [tiaacref.org](http://tiaacref.org) for product and fund prospectuses that contains this and other information. Please read the prospectuses carefully before investing.**

Morningstar is an independent service that rates mutual funds and variable annuities, based on risk-adjusted returns. Although Morningstar data is gathered from reliable sources, neither Morningstar nor TIAA-CREF can guarantee its completeness and accuracy. Morningstar does not rate money market accounts, and the other TIAA-CREF mutual fund accounts are too new to be rated. Past performance does not guarantee future results. Accumulation net asset values and returns will vary.

For each fund/account with at least a three-year history, Morningstar calculates a Morningstar Rating™ based on a Morningstar Risk-Adjusted Return measure that accounts for variation in a fund's/account's monthly performance (including the effects of sales charges, loads, and redemption fees), placing more emphasis on downward variations and rewarding consistent performance. Where applicable, Morningstar's performance rankings are based on linked performance that considers the differences in expense ratios, while actual performance data shown does not reflect such differences. The top 10 percent of funds/accounts in a category receive five stars, the next 22.5 percent receive four stars, and the next 35 percent receive three stars, the next 22.5 percent receive two stars and the bottom 10 percent receive one star. (Each share class is counted as a fraction of one fund/account within this scale and rated separately, which may cause slight variations in the distribution percentages.) Morningstar proprietary ratings on U.S.-domiciled funds/accounts reflect historical risk-adjusted performance, are subject to change every month. They are derived from a weighted average of the performance figures associated with its three-, five- and ten-year (if applicable) Morningstar Rating metrics. Please note, Morningstar now rates group variable annuities within the open-end mutual fund universe.

## **Prospectus Gross Expense Ratio**

The percentage of fund assets used to pay for operating expenses and management fees, including 12b-1 fees, administrative fees, and all other asset-based costs incurred by the fund, except brokerage costs. Fund expenses are reflected in the fund's NAV. Sales charges are not included in the expense ratio.

--The expense ratio for fund of funds is the aggregate expense ratio as defined as the sum of the wrap or sponsor fees plus the estimated weighted average of the underlying fund fees.

--Often referred to as the Annual Operating Expense, the Prospectus Gross Expense Ratio is collected annually from a fund's prospectus.

## **Prospectus Net Expense Ratio**

The percentage of fund assets, net of reimbursements, used to pay for operating expenses and management fees, including 12b-1 fees, administrative fees, and all other asset-based costs incurred by the fund, except brokerage costs. Fund expenses are reflected in the fund's NAV. Sales charges are not included in the expense ratio.

--The expense ratio for fund of funds is the aggregate expense ratio as defined as the sum of the wrap or sponsor fees plus the estimated weighted average of the underlying fund fees.

--Net reimbursements, the Prospectus Net Expense Ratio is collected annually from a fund's prospectus.

--TIAA-CREF, unless noted, does not charge additional fees for record keeping a fund. 12b-1, revenue share and admin fees are all included in the Prospectus fees.

-- Prospectus Net Expense Ratio % - ile rank is the percentile rank for the fund. The better the expense ratio (lower) the lower the ranking out of 100.

## **Sharpe Ratio (Source: Morningstar Direct)**

A risk-adjusted measure developed by Nobel Laureate William Sharpe. It is calculated by using standard deviation and excess return to determine reward per unit of risk. The higher the Sharpe Ratio, the better the portfolio's historical risk-adjusted performance. The Sharpe Ratio can be used to compare two portfolios directly with regard to how much excess return each portfolio achieved for a certain level of risk. Morningstar first calculates a monthly Sharpe Ratio and then annualizes it to put the number in a more useful one-year context.

**Standard Deviation (Source: Morningstar Direct)** The statistical measurement of dispersion about an average, which depicts how widely a stock or portfolio's returns varied over a certain period of time. Investors use the standard deviation of historical performance to try to predict the range of returns that is most likely for a given investment. When a stock or portfolio has a high standard deviation, the predicted range of performance is wide, implying greater volatility.

## **Information Ratio (Source: Morningstar Direct) Benchmark Specific**

Information ratio is a risk-adjusted performance measure. The information ratio is a special version of the Sharpe Ratio in that the benchmark doesn't have to be the risk-free rate.

**Beta (Source: Morningstar Direct) Benchmark Specific**

Beta is a measure of a portfolio's sensitivity to market movements. The beta of the market is 1.00 by definition.

**Alpha (Source: Morningstar Direct) Benchmark Specific**

A measure of the difference between a portfolio's actual returns and its expected performance, given its level of risk as measured by beta. A positive Alpha figure indicates the portfolio has performed better than its beta would predict. In contrast, a negative Alpha indicates the portfolio has underperformed, given the expectations established by beta.

**Tracking Error (Source: Morningstar Direct) Benchmark Specific**

Tracking error is a measure of the volatility of excess returns relative to a benchmark.

**Upside (Source: Morningstar Direct) Benchmark Specific**

Upside Capture Ratio measures a manager's performance in up markets relative to the market (benchmark) itself. It is calculated by taking the security's upside capture return and dividing it by the benchmark's upside capture return.

**Downside (Source: Morningstar Direct) Benchmark Specific**

Downside Capture Ratio measures a manager's performance in down markets relative to the market (benchmark) itself. It is calculated by taking the security's downside capture return and dividing it by the benchmark's downside capture return.

**R-Square (Source: Morningstar Direct) Benchmark Specific**

Reflects the percentage of a portfolio's movements that can be explained by movements in its benchmark.  
You cannot invest directly in index.

TIAA-CREF reported performance may differ from Morningstar source returns for the same option over the same time period. We would expect an occasional one to two basis point difference. Morningstar Direct calculates returns by one share owned by a hypothetical investor over the requested time period. So the return for one year is calculated using the same formula as one month. TIAA-CREF calculates returns by \$1,000 owned by hypothetical investor for one month then links returns for requested time period. Both set of returns include dividends and capital gains.

## Section XV.

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### OPEB Trust



**Total Performance Summary**

Report ID: IPM0005

Reporting Currency: USD

**TOTAL NET OF FEES**

8/31/2016

Account Name Benchmark Name	Market Value	% of Total	Month	YTD	Fiscal YTD	Annualized				ITD	Inception Date
						1 Year	3 Years	5 Years	10 Years		
Mackay Shields OPEB	65,737,453.0	35.1	-0.05	5.58	0.56	5.59	4.31			2.69	5/1/2013
<i>Barclays U.S. Aggregate Bond Index</i>			-0.11	5.86	0.52	5.97	4.37			2.77	5/1/2013
SSGA S&P 500 INDX	121,419,190.8	64.9	0.14	7.83	3.83	12.64	12.31	14.65		12.35	5/1/2011
<i>S&amp;P 500 - Total Return Index</i>			0.14	7.82	3.83	12.55	12.30	14.69		11.50	5/1/2011
<b>Total OPEB</b>	<b>187,156,643.8</b>	<b>100.0</b>	<b>0.07</b>	<b>7.18</b>	<b>2.66</b>	<b>10.30</b>	<b>9.57</b>	<b>9.35</b>		<b>8.81</b>	<b>5/1/2011</b>
<i>OPEB Custom Blend</i>			0.05	7.23	2.67	10.41	9.62	9.17		7.86	5/1/2011

## END NOTES

8/31/2016

1 RI7GX0903OPE OPEB Custom Blend

35% Barclays Aggregate and 65% S&amp;P 500

TOTAL NET OF FEES

8/31/2016

Account Name Benchmark Name	Market Value	% of Total	YTD	Month	Cumulative					Inception Date
					7/1/2016 - 7/31/2016	6/1/2016 - 6/30/2016	2015	2014	2013	
Mackay Shields OPEB	65,737,453.0	35.1	5.58	-0.05	0.62	1.86	0.46	6.03		5/1/2013
Barclays U.S. Aggregate Bond Index			5.86	-0.11	0.63	1.80	0.55	5.97		5/1/2013
SSGA S&P 500 INDX	121,419,190.8	64.9	7.83	0.14	3.68	0.25	1.46	13.63	32.09	5/1/2011
S&P 500 - Total Return Index			7.82	0.14	3.69	0.26	1.38	13.69	32.39	5/1/2011
<b>Total OPEB</b>	<b>187,156,643.8</b>	<b>100.0</b>	<b>7.18</b>	<b>0.07</b>	<b>2.58</b>	<b>0.81</b>	<b>1.16</b>	<b>11.00</b>	<b>15.77</b>	<b>5/1/2011</b>
OPEB Custom Blend			7.23	0.05	2.62	0.80	1.31	11.00	15.73	5/1/2011

## END NOTES

8/31/2016

- |   |              |                   |  |
|---|--------------|-------------------|--|
| 1 | RI7G10000000 | Total OPEB        | YTD - Calendar Year to Date<br>Month - Current Month<br>Cumulative Months - Prior Month and Second Prior Month |
| 2 | RI7GX0903OPE | OPEB Custom Blend | 2013, 2012, 2011 - Calendar Year<br>65% S&P 500 and 35% Barclays Aggregate                                     |