

**STATE OF RHODE ISLAND
INVESTMENT COMMISSION MEETING**

**DATA AT
July 31, 2016**

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 II.

Approval of Minutes



State Investment Commission
Monthly Meeting Minutes
Wednesday, July 13th, 2016
1:30 p.m.
50 Service Avenue, Warwick RI 02886

A meeting of the State Investment Commission (SIC) was called to order at 1:31 p.m., Wednesday, July 13th, 2016 in the large conference room at 50 Service Avenue, Warwick RI 02886

I. Roll Call of Members

The following members were present: Mr. Thomas Fay, Mr. Frank Karpinski, Ms. Sylvia Maxfield, Mr. Thomas Mullaney, Ms. Marcia Reback, and Treasurer Seth Magaziner. Ms. Marie Langlois arrived at 1:37 p.m.

Also in attendance: Mr. John Burns and Mr. Allen Emkin of Pension Consulting Alliance (PCA), general consultants; Mr. Joe Newton and Mr. Paul Wood of Gabriel Roeder Smith & Company (GRS), actuaries; Ms. Sally Dowling of Adler Pollock & Sheehan P.C., legal counsel; Ms. Anne-Marie Fink, Chief Investment Officer; Ms. Kerri Baker, Cash Manager; and members of the Treasurer's Office staff. Treasurer Magaziner called the meeting to order at 1:31 p.m.

II. Asset Liability Study Overview

Treasurer Magaziner framed the discussion, explaining that the main purpose of the meeting was to determine risk appetite from the perspective of the Retirement Board/Members. He explained the relationship between risk and return, and desired to understand how much volatility the pension plan is able and willing to take. Once that is understood, the SIC and Investment Consultant (Pension Consulting Alliance) will finalize assumptions relating to different asset classes with expected returns. The SIC's goal is to build a portfolio which would generate the highest return for the level of risk the board is willing to take. If the preference is to take absolutely no risk, then investment returns will suffer. If the preference is to get as much return as possible, then there may be undue risk taken. In sum, finding the right balance is critical.

Mr. Emkin and Mr. Burns gave an overview of the relationship between assets and liabilities. They pointed out that the SIC and the Retirement Board would have to reconcile these perspectives of risk in order to come up with the appropriate amount of risk for the pension plan going forward.

Mr. Emkin summarized the current state of the portfolio. Specifically, he highlighted the fact the fund is spending 5% more than it takes in on an annual basis (the average for other plans is 2.7%). This presents an investment challenge.

He pointed out that the plan sponsors make their required contribution, which helps the fund maintain its financial condition. However, relative to its peers, the plan is still underfunded. Mr. Paul Dion of the Retirement Board asked how it occurred that the plan is relatively underfunded compared to peers when plan contributions had been made consistently for over 20 years. Several reasons were offered. Mr. Emkin also pointed out that it goes back to the issue of unfunded liability. Ms. Reback spotlighted the amortization schedule and that the plan is on its way to being fully funded. She also pointed out that at a certain point, benefits simply were not funded, which put a strain on the plan.

Mr. Emkin talked about the variety of ways to look at risk. He said the boards should be concerned with how comfortable they would be with the funding ratio going under a certain percentage level because these are precisely the decisions that will have to be made during the asset liability study. For instance, if the board did not want funding to dip below 50%, then certain portfolios would be eliminated. Treasurer Magaziner expressed this is exactly the kind of feedback he wanted from the Retirement Board: to understand the boundaries within which the SIC should act when constructing the asset allocation.

Mr. Burns spoke about low interest rates and in some cases negative interest rates, and how this would affect the study. He commented that interest rates are vital as they are the bedrock of all investments.

The boards asked questions.

Following PCA's presentation, Mr. Newton presented hypothetical examples of various portfolios in order to help illustrate what the portfolio would look like under different what-if scenarios. He explained how GSA sets different assumptions, and how they set investment return assumptions.. Mr. Newton provided details regarding each fictional scenario, and how the decisions of the board would directly impact what type of investment portfolio could be created based on each investment return assumptions.

The boards asked questions.

III. Community Deposit Program Update

Ms. Baker told the board of new interest in the program, with Navigant Credit Union expressing interest to participate. Ms. Baker indicated the staff has conducted due diligence on Navigant based on the investment policy statement set forth by the State Investment Commission. Ms. Baker said after reviewing its audited financials, staff has found Navigant is well capitalized, had positive return on assets for 6/6 quarters, has a federal reserve rate capital ratio of almost 12% and has been established for over 100 years.

On a motion by Ms. Maxfield and seconded by Ms. Langlois, it was unanimously
VOTED: to approve Navigant Credit Union as a short term investment lender

IV. Legal Counsel Report

Ms. Dowling suggested that due to staffing changes, the authorized signatures in connection with investments must be updated.

Accordingly, on a motion by Ms. Langlois and seconded by Ms. Maxfield, it was unanimously
VOTED: that in connection with investments authorized by the Rhode Island State Investment Commission, Seth M. Magaziner, General Treasurer, Amy Crane, General Counsel, Patrick Marr, Chief of Staff, Kerri Baker, Cash Manager and Thanh (Tim) Nguyen, Interim Chief Investment Officer, and each of them be, and hereby is authorized, empowered and directed to execute and deliver by and on behalf of the Employees' Retirement System of the State of Rhode Island any and all Subscription Agreements, Side Letters, documents, instruments and other writings which each of them in the exercise of his or her sole discretion shall deem necessary or desirable and in the best interest of the Employees' Retirement System of the State of Rhode Island, the execution thereof by such authorized officer to be conclusive evidence that the same is duly authorized.

V. Chief Investment Officer Report

Ms. Fink spoke about the successful 529 conversion that was completed on July 12th. This was the largest 529 conversion ever, with all 275,000 accounts transferred and balanced to the penny. The website and call center are currently up and running. Ms. Fink commended the board for making the decision to convert to Ascensus and Invesco and lauded the staff for all their hard work during the transition.

Ms. Fink then talked about the newly established State Police Retirement Fund Trust, which is now the 7th subcomponent of the portfolio. The Trust is funded by \$16 million dollars received from Google and the state will make contributions yearly.

Ms. Fink reported that a Request for Proposal (RFP) has been issued to provide digital board books for both the Retirement Board and the SIC. She asked the members to provide opinions and consideration as to what features they may like to see in the software to enhance the user experience.

Ms. Fink then gave a performance preview. With the meeting being held mid-month, there were no final numbers to report. She noted what an unusual month it has been thus far. BREXIT was a significant factor in the markets; there was a 5% selloff after the vote but it balanced on the rebound. Interestingly, she noted that both risky and safe stocks did well, which is unusual as it is usually one or the other. If performance holds, Ms. Fink said there would be modest positive returns for the month but flat on the fiscal year.

Ms. Fink then expressed the bittersweet moment it was to have her time at the Treasury come to an end. She said it was a pleasure to work with the board and thanked everyone. She also said she was confident the board is in good hands under the direction of Mr. Nguyen.

VI. Treasurer's General Comments

Treasurer Magaziner summarized overall performance of the portfolio under the leadership of Ms. Fink. He highlighted her achievements including the cumulative return of 2.04% outperformance on the 60/40, translating to \$150 million in excess investment gains during her tenure. The Treasurer said Ms. Fink will be greatly missed and thanked her for her years of service.

Treasurer Magaziner also spoke to the 529 conversion. He was very pleased with the success of the conversion and believes it will lead to a bright future of one of the SIC's most important programs. He also thanked the board for their participation in the rigorous schedule they have this summer due to the asset liability study.

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 4:11p.m.

Respectfully submitted,

**Seth Magaziner,
General Treasurer**

Section III.

Staff Summary

Portfolio Highlights

July 2016

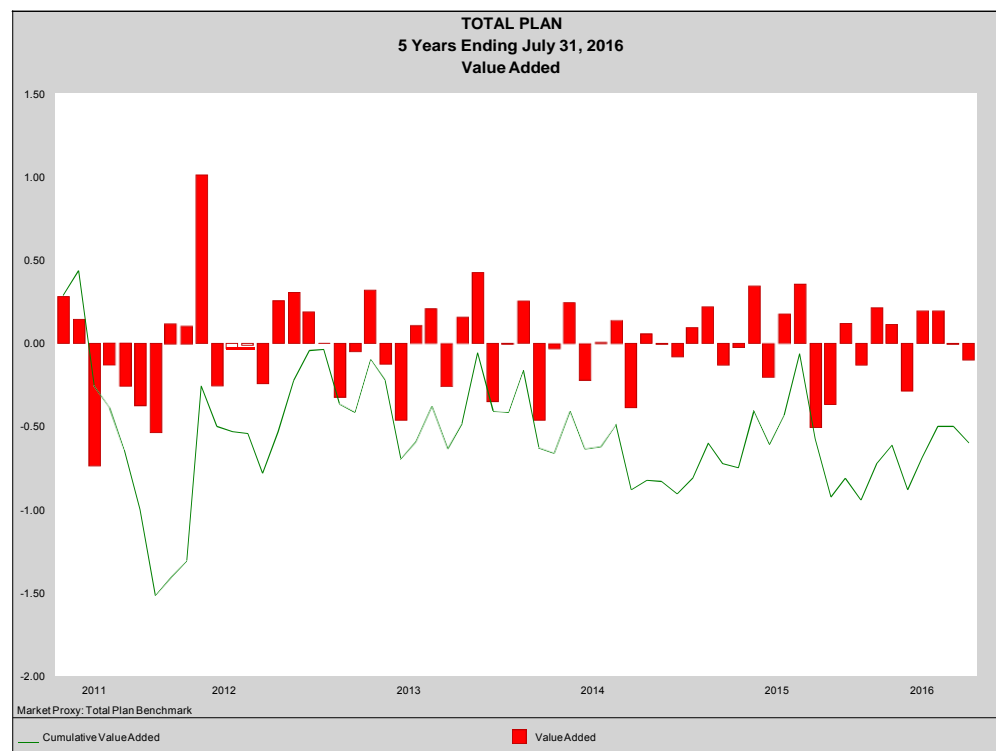
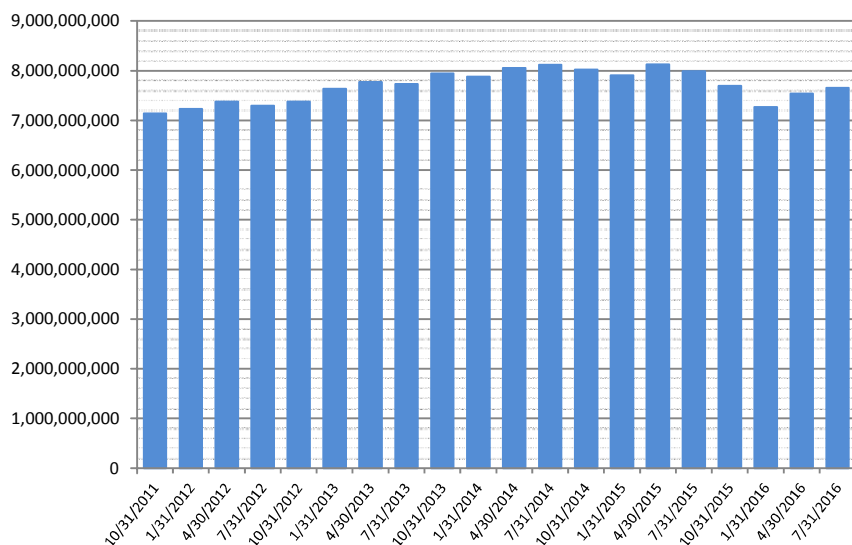
For the month, the total portfolio value increased by approximately \$153.3 million to rest at \$7.65 billion. The month's increase comes from \$177.9 million of positive investment performance reduced by \$24.6 million of transfers to meet pension payroll in excess of pension contributions. On a percentage basis, the portfolio rose by 2.37% falling marginally short of the 2.48% return of the bottom-up benchmark and the 2.84% return from a basic 60% global equity/40% fixed income allocation.

For the calendar year-to-date, the total portfolio value has increased by \$20.1 million, with portfolio gains of \$185.7 million offset by \$165.6 million in pension payments. The portfolio's 5.10% investment gain exceeded the benchmark's 4.78%, while lagging the 60/40 allocation's 5.90% return.

As a backdrop for the month, Global Equities delivered positive returns in US dollar terms during this month. Commodities gained, with energy outperforming. US Equities gained over the month and quarter writ large. Equity gain was supported by expectations that additional interest rate rises would be delayed. As such, for the month and from an absolute value perspective, all disciplines posted positive returns. Non-US Public Equities contributed the most positive returns as the discipline benefited from a global equity market rally following the traumatic Brexit event in the United Kingdom. The next discipline to generate the most positive return relates to Traditional Fixed Income. Specifically, Pyramis Global braved the way, demonstrating superior security selection and outperforming its respective benchmark by 25 basis points.

Over the longer 3-year time frame, the portfolio has slightly underperformed the 5.39% 60/40 benchmark (5.38%), while over the 5-year, the 6.34% return has outperformed the 5.64% benchmark.

GRAND TOTAL - Market Value



Account Name Benchmark Name	Market Value (M)	Month	Fiscal YTD
US Public Equity	1,212.38	3.97	3.97
Non-US Public Equity	1,151.12	5.02	5.02
Equity Hedge Funds	560.49	1.31	1.31
Private Equity	522.89	0.43	0.43
Traditional Fixed Income	1,067.93	0.75	0.75
Real Estate	509.32	1.16	1.16
Real Return Hedge Funds	492.41	0.63	0.63
Publicly Traded Infrastructure	172.67	0.85	0.85
Priv Listed Infrastructure	83.98	0.23	0.23
Credit Aggregate	422.00	1.28	1.28
Inflation-Linked Bonds	285.42	0.31	0.31
Total Cash	100.58	0.10	0.10
TOTAL PLAN	7,653.92	2.37	2.37



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

Seth Magaziner

General Treasurer

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

August 24, 2016

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 July 31, 2016.

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

Asset Class		Base Market Value
Grand Total		7,653,923,051
CASH EQUIVALENT*		176,244,136
EQUITY HEDGE FUNDS**		559,036,016
GLOBAL PUBLIC EQUITY		3,407,227,229
CREDIT		397,692,370
INFLATION-LINKED BDS		279,239,616
PRIVATE EQUITY**		522,690,468
REAL ESTATE**		509,318,465
REAL RET HEDGE FUNDS**		492,410,369
INFRASTRUCTURE**		251,390,903
US TRADITIONAL FIXED		1,058,673,477

Plan Allocations	%	Base Market Value
Grand Total	100.00%	7,653,923,051
STATE EMP RET PLAN	75.89%	5,808,354,988
MUNI EMP RET PLAN	17.94%	1,373,601,250
TEACHER'S SURVIVOR BENEFIT	3.81%	291,384,222
STATE POLICE RET PL	1.55%	118,469,766
JUDICIAL RET PLAN	0.80%	61,513,442
NON-CONTRIB JUD RET	0.01%	599,384

* 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.

Asset Allocation

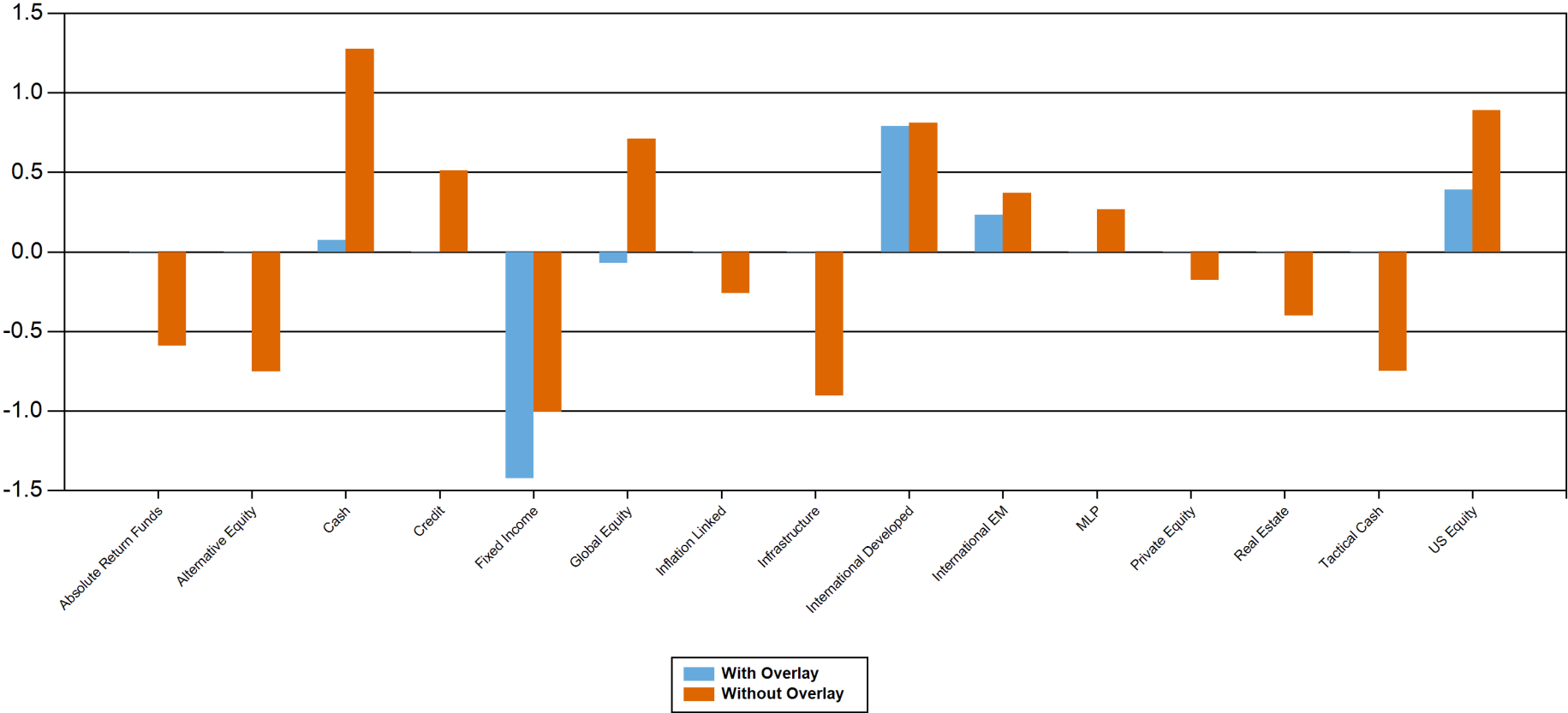
Asset Summary

Balance Date: 7/29/2016



<u>Asset Class</u>	<u>Physical Exposure</u>		<u>Synthetic Exposure</u>		<u>Net Position</u>		<u>Overlay Target</u>		<u>Policy Target</u>	
Total Market Value	7,632.1	100.0 %	0.0	0.0 %	7,632.1	100.0 %	7,632.1	100.0 %	7,632.1	100.00 %
Cash	97.3	1.3 %	-81.9	-1.1 %	15.4	0.2 %	9.7	0.1 %	0.0	0.00 %
Cash	97.3	1.3 %	-81.9	-1.1 %	15.4	0.2 %	9.7	0.1 %	0.0	0.00 %
Equity	4,491.5	58.9 %	81.9	1.1 %	4,573.5	59.9 %	4,470.7	58.6 %	4,350.3	57.00 %
Alternative Equity	553.1	7.2 %	0.0	0.0 %	553.1	7.2 %	553.1	7.2 %	610.6	8.00 %
Global Equity	1,054.1	13.8 %	0.0	0.0 %	1,054.1	13.8 %	1,059.5	13.9 %	999.8	13.10 %
International Developed	817.4	10.7 %	43.7	0.6 %	861.1	11.3 %	800.7	10.5 %	755.6	9.90 %
International EM	333.5	4.4 %	7.9	0.1 %	341.3	4.5 %	323.5	4.2 %	305.3	4.00 %
Private Equity	520.7	6.8 %	0.0	0.0 %	520.7	6.8 %	520.7	6.8 %	534.3	7.00 %
US Equity	1,212.8	15.9 %	30.4	0.4 %	1,243.2	16.3 %	1,213.2	15.9 %	1,144.8	15.00 %
Fixed	1,067.9	14.0 %	0.0	0.0 %	1,067.9	14.0 %	1,176.5	15.4 %	1,144.8	15.00 %
Fixed Income	1,067.9	14.0 %	0.0	0.0 %	1,067.9	14.0 %	1,176.5	15.4 %	1,144.8	15.00 %
Other	1,975.3	25.9 %	0.0	0.0 %	1,975.3	25.9 %	1,975.3	25.9 %	2,137.0	28.00 %
Absolute Return Funds	489.3	6.4 %	0.0	0.0 %	489.3	6.4 %	489.3	6.4 %	534.3	7.00 %
Credit	420.7	5.5 %	0.0	0.0 %	420.7	5.5 %	420.7	5.5 %	381.6	5.00 %
Inflation Linked	285.4	3.7 %	0.0	0.0 %	285.4	3.7 %	285.4	3.7 %	305.3	4.00 %
Infrastructure	83.8	1.1 %	0.0	0.0 %	83.8	1.1 %	83.8	1.1 %	152.6	2.00 %
MLP	173.0	2.3 %	0.0	0.0 %	173.0	2.3 %	173.0	2.3 %	152.6	2.00 %
Real Estate	503.7	6.6 %	0.0	0.0 %	503.7	6.6 %	503.7	6.6 %	534.3	7.00 %
Tactical Cash	19.3	0.3 %	0.0	0.0 %	19.3	0.3 %	19.3	0.3 %	76.3	1.00 %

Percent Deviation from Overlay Target



Total Absolute Notional Value: 81.9 (USD)

Asset Summary

Balance Date: 7/29/2016



<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>	
Total Assets	7,632.1	100.0 %	4,491.5	58.9 %	1,067.9	14.0 %	1,975.3	25.9 %	97.3	1.3 %
Cash	97.2	1.3 %	0.0	0.0 %	0.0	0.0 %	0.0	0.0 %	97.1	1.3 %
Cash Acct (Pooled Trust)	98.1	1.3 %	0.0	0.0 %	0.0	0.0 %	0.0	0.0 %	98.1	1.3 %
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	18.4	0.2 %	0.0	0.0 %	0.0	0.0 %	0.0	0.0 %	18.4	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	-19.3	-0.3 %	0.0	0.0 %	0.0	0.0 %	0.0	0.0 %	-19.3	-0.3 %
Equity	4,491.8	58.9 %	4,491.5	58.9 %	0.0	0.0 %	0.0	0.0 %	0.2	0.0 %
Alternative Equity	553.1	7.2 %	553.1	7.2 %	0.0	0.0 %	0.0	0.0 %	0.0	0.0 %
Ascend Partners Fund II, LP	68.1	0.9 %	68.1	0.9 %	0.0	0.0 %	0.0	0.0 %	0.0	0.0 %
Davidson Kempner	77.6	1.0 %	77.6	1.0 %	0.0	0.0 %	0.0	0.0 %	0.0	0.0 %
Elliot Associates, LP	86.9	1.1 %	86.9	1.1 %	0.0	0.0 %	0.0	0.0 %	0.0	0.0 %
ESG	41.1	0.5 %	41.1	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	75.0	1.0 %	75.0	1.0 %	0.0	0.0 %	0.0	0.0 %	0.0	0.0 %
Samlyn Onshore Fund LP	102.0	1.3 %	102.0	1.3 %	0.0	0.0 %	0.0	0.0 %	0.0	0.0 %
Viking Global Equities	96.4	1.3 %	96.4	1.3 %	0.0	0.0 %	0.0	0.0 %	0.0	0.0 %
Global Equity	1,054.3	13.8 %	1,054.1	13.8 %	0.0	0.0 %	0.0	0.0 %	0.2	0.0 %
Global Equity Transition	0.2	0.0 %	0.0	0.0 %	0.0	0.0 %	0.0	0.0 %	0.2	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 %
International Developed	817.4	10.7 %	817.4	10.7 %	0.0	0.0 %	0.0	0.0 %	0.0	0.0 %
SSgA MSCI Canada	97.8	1.3 %	97.8	1.3 %	0.0	0.0 %	0.0	0.0 %	0.0	0.0 %
SSgA MSCI EAFE	719.6	9.4 %	719.6	9.4 %	0.0	0.0 %	0.0	0.0 %	0.0	0.0 %
International EM	333.5	4.4 %	333.5	4.4 %	0.0	0.0 %	0.0	0.0 %	0.0	0.0 %
SSgA Emerging Mkts	333.5	4.4 %	333.5	4.4 %	0.0	0.0 %	0.0	0.0 %	0.0	0.0 %
Private Equity	520.7	6.8 %	520.7	6.8 %	0.0	0.0 %	0.0	0.0 %	0.0	0.0 %
Combined Private Equity	520.7	6.8 %	520.7	6.8 %	0.0	0.0 %	0.0	0.0 %	0.0	0.0 %
US Equity	1,212.4	15.9 %	1,212.4	15.9 %	0.0	0.0 %	0.0	0.0 %	0.0	0.0 %
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	1,212.4	15.9 %	1,212.4	15.9 %	0.0	0.0 %	0.0	0.0 %	0.0	0.0 %
US Large Cap	0.4	0.0 %	0.4	0.0 %	0.0	0.0 %	0.0	0.0 %	0.0	0.0 %
Shott Capital	0.4	0.0 %	0.4	0.0 %	0.0	0.0 %	0.0	0.0 %	0.0	0.0 %
Fixed	1,067.9	14.0 %	0.0	0.0 %	1,067.9	14.0 %	0.0	0.0 %	0.0	0.0 %
Fixed Income	1,067.9	14.0 %	0.0	0.0 %	1,067.9	14.0 %	0.0	0.0 %	0.0	0.0 %
MacKay Shields Core	527.6	6.9 %	0.0	0.0 %	527.6	6.9 %	0.0	0.0 %	0.0	0.0 %
Pyramis Core	540.3	7.1 %	0.0	0.0 %	540.3	7.1 %	0.0	0.0 %	0.0	0.0 %
Other	1,975.3	25.9 %	0.0	0.0 %	0.0	0.0 %	1,975.3	25.9 %	0.0	0.0 %
Tactical Cash	19.3	0.3 %	0.0	0.0 %	0.0	0.0 %	19.3	0.3 %	0.0	0.0 %
Tactical Cash Template	19.3	0.3 %	0.0	0.0 %	0.0	0.0 %	19.3	0.3 %	0.0	0.0 %

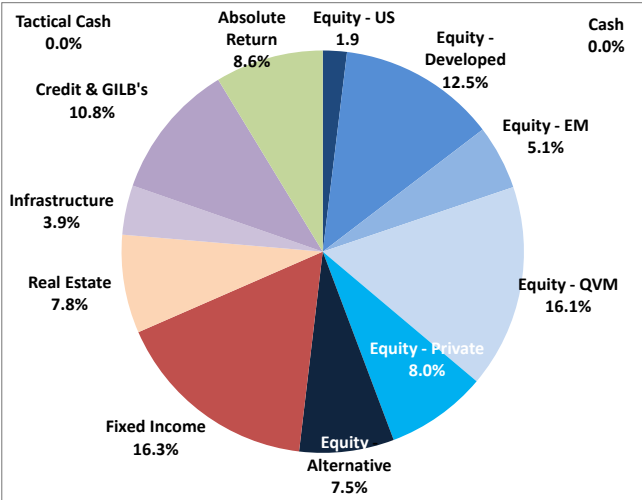
Asset Summary

Balance Date: 7/29/2016

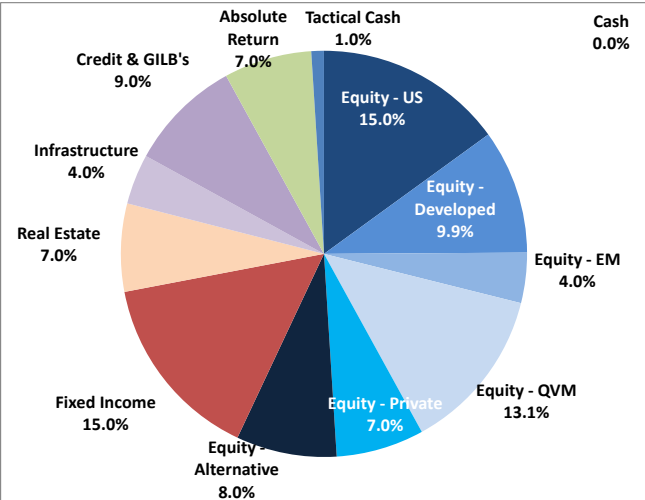


<u>Manager</u>	<u>Total Market Value</u>		<u>Equity Market Value</u>		<u>Fixed Market Value</u>		<u>Other Market Value</u>		<u>Cash Balance</u>	
Absolute Return Funds	489.3	6.4 %	0.0	0.0 %	0.0	0.0 %	489.3	6.4 %	0.0	0.0 %
Brevan Howard LP	77.4	1.0 %	0.0	0.0 %	0.0	0.0 %	77.4	1.0 %	0.0	0.0 %
Brigade Levered Capital	56.5	0.7 %	0.0	0.0 %	0.0	0.0 %	56.5	0.7 %	0.0	0.0 %
Capula Global Relative Value	64.6	0.8 %	0.0	0.0 %	0.0	0.0 %	64.6	0.8 %	0.0	0.0 %
Claren Road Cr Fund	6.4	0.1 %	0.0	0.0 %	0.0	0.0 %	6.4	0.1 %	0.0	0.0 %
D.E. Shaw Composite Fund	92.2	1.2 %	0.0	0.0 %	0.0	0.0 %	92.2	1.2 %	0.0	0.0 %
Graham Global	55.7	0.7 %	0.0	0.0 %	0.0	0.0 %	55.7	0.7 %	0.0	0.0 %
Oz Domestic Partners II	99.7	1.3 %	0.0	0.0 %	0.0	0.0 %	99.7	1.3 %	0.0	0.0 %
Winton Futures Ltd Fund	36.8	0.5 %	0.0	0.0 %	0.0	0.0 %	36.8	0.5 %	0.0	0.0 %
Credit	420.7	5.5 %	0.0	0.0 %	0.0	0.0 %	420.7	5.5 %	0.0	0.0 %
PIMCO	213.9	2.8 %	0.0	0.0 %	0.0	0.0 %	213.9	2.8 %	0.0	0.0 %
WAMCO	206.9	2.7 %	0.0	0.0 %	0.0	0.0 %	206.9	2.7 %	0.0	0.0 %
Inflation Linked	285.4	3.7 %	0.0	0.0 %	0.0	0.0 %	285.4	3.7 %	0.0	0.0 %
Brown Brothers Harriman-GILBS	285.4	3.7 %	0.0	0.0 %	0.0	0.0 %	285.4	3.7 %	0.0	0.0 %
Infrastructure	83.8	1.1 %	0.0	0.0 %	0.0	0.0 %	83.8	1.1 %	0.0	0.0 %
Combined Priv. Infrastructure	83.8	1.1 %	0.0	0.0 %	0.0	0.0 %	83.8	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 %
MLP	173.0	2.3 %	0.0	0.0 %	0.0	0.0 %	173.0	2.3 %	0.0	0.0 %
Harvest Fund Advisor	173.0	2.3 %	0.0	0.0 %	0.0	0.0 %	173.0	2.3 %	0.0	0.0 %
Real Estate	503.7	6.6 %	0.0	0.0 %	0.0	0.0 %	503.7	6.6 %	0.0	0.0 %
Combined Real Estate	503.7	6.6 %	0.0	0.0 %	0.0	0.0 %	503.7	6.6 %	0.0	0.0 %

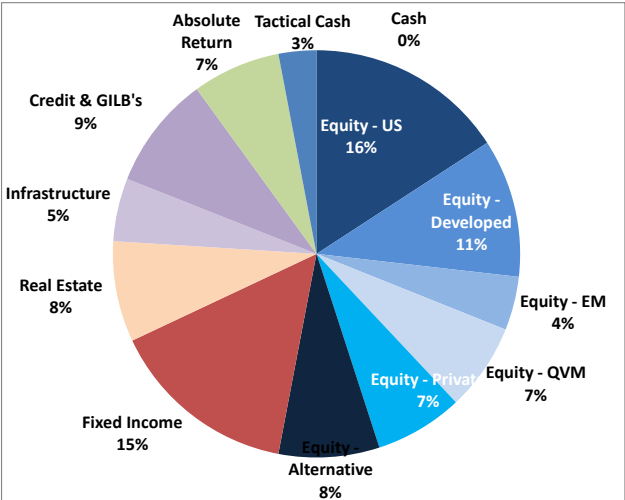
Actual Allocation



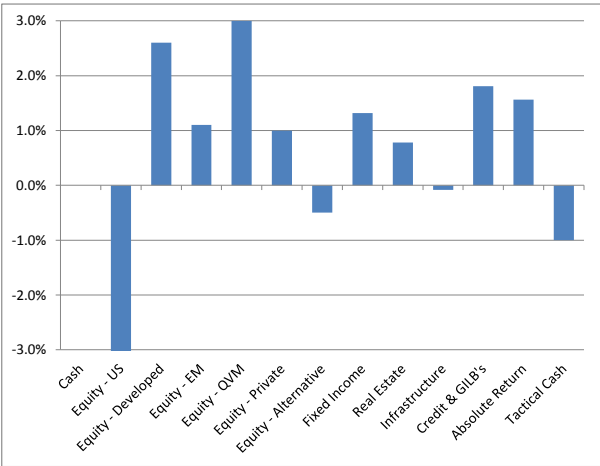
Tactical Allocation



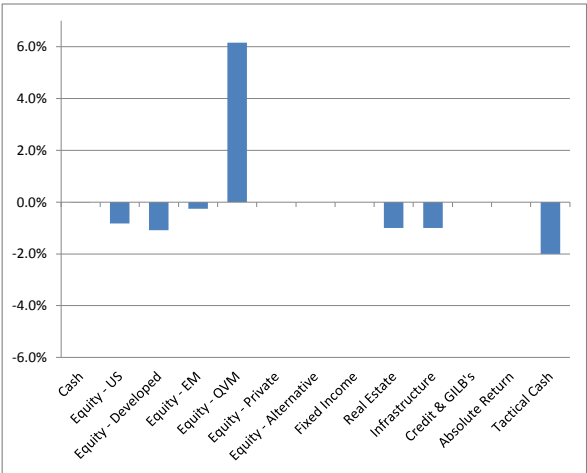
Policy Allocation



Actual vs. Tactical



Tactical vs. Policy



Notes:

Actual vs. Tactical: SIC policy allows for fluctuations of $\pm 2\%$ from Tactical to accommodate market movements while minimizing trading costs for rebalancing, and lags in rebalancing to less liquid asset classes.

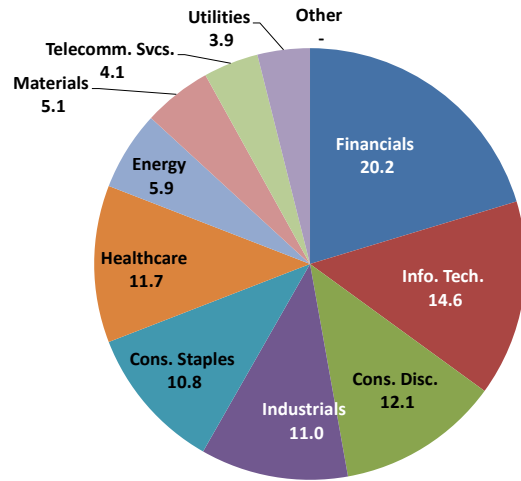
Tactical vs. Policy: Tactical allocations diverge from policy to allow time to vet third-party managers allowing prudent implementation of SIC policy decisions, and to diversify vintage-year exposure for drawdown funds (e.g., private equity, real estate, infrastructure).

Currently tactical allocations are (4) percentage points (pps) below policy on real estate and (5) pps on infrastructure & MLP's, due to timing required to deploy funds. An additional +9 pps in equity offers interim exposure to economic growth and protection from interest rate volatility, capturing similar macroeconomic exposures to underallocated asset classes.

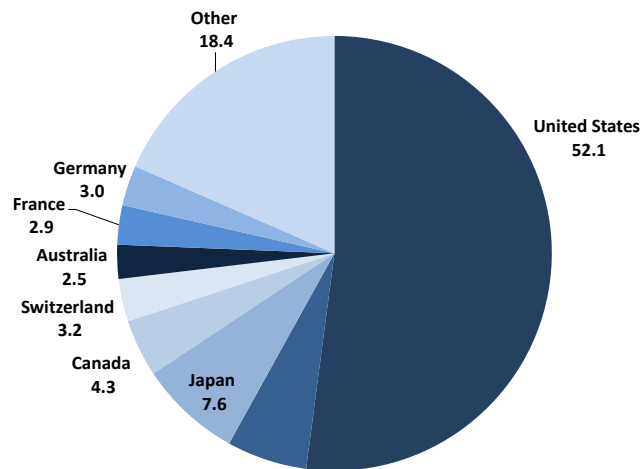
ERSRI Asset Allocation Public-Asset Portfolios

%% - as of July 31, 2016

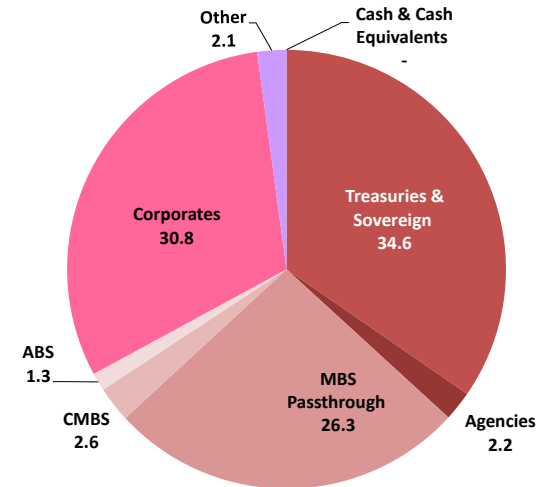
Global Public Equity - by Industry Sector



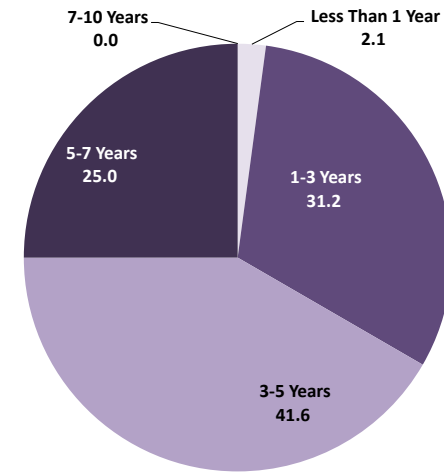
Global Public Equity - by Geography



Core Fixed Income - by Type



Inflation-Linked Bonds - by Duration



Section V.

Risk Overview

5 Years Ending July 31, 2016 Comparison

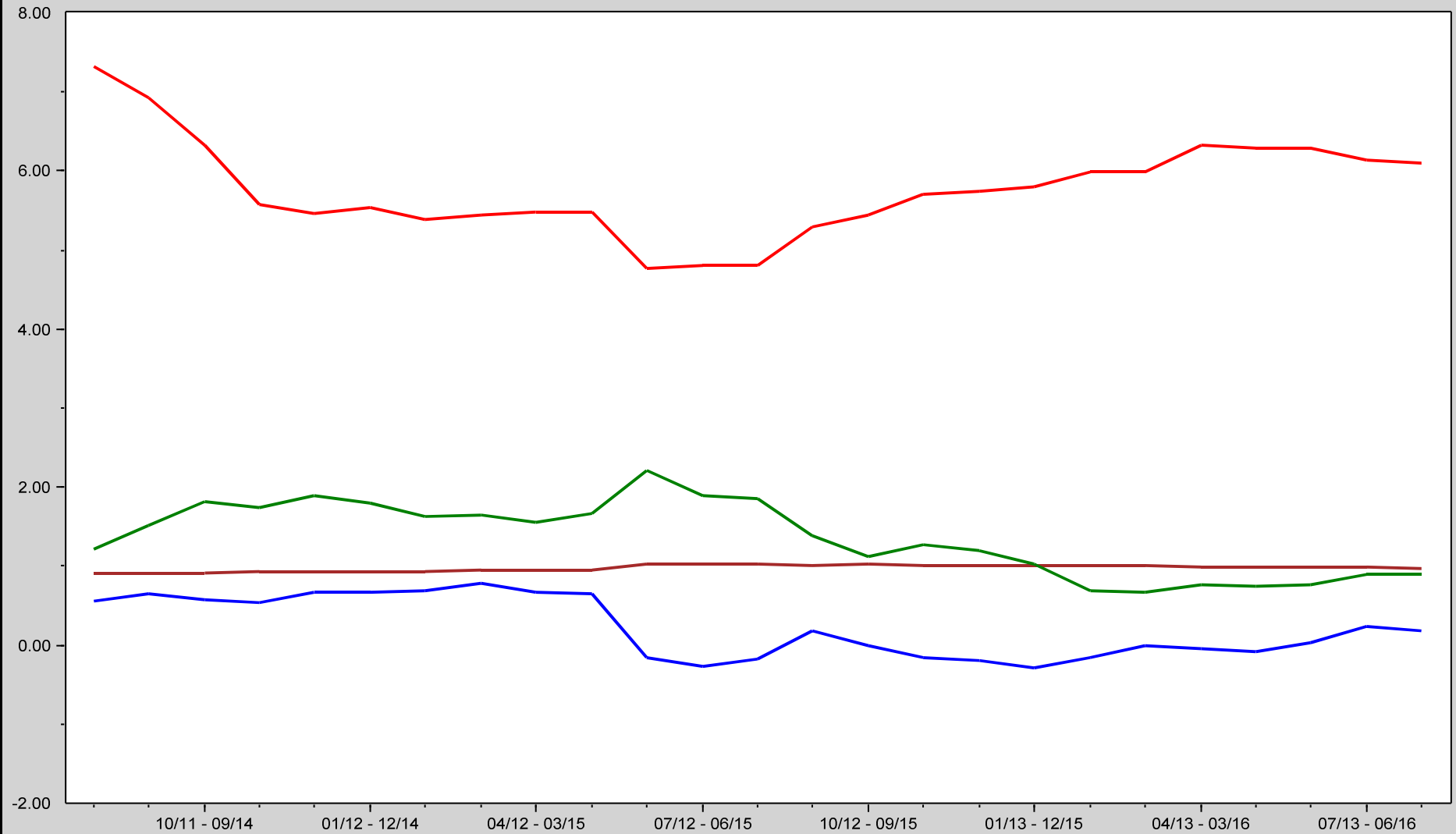
	TOTAL PLAN	Total Plan Benchmark	60/40 Blend
Ann Return	6.34	6.47	5.64
Ann Ex Ret vs Mkt	-0.12	0.00	
Ann Tracking Error	1.00	0.00	
Ann Std Dev	7.04	7.43	8.07
Beta	0.94	1.00	
R-Squared	0.98	1.00	
Ann Alpha	0.24	0.00	
Ann Sharpe Ratio	0.90	0.87	0.71

Historical Risk - Three Year Rolling Periods

TOTAL PLAN

5 Years Ending July 31, 2016

Trend



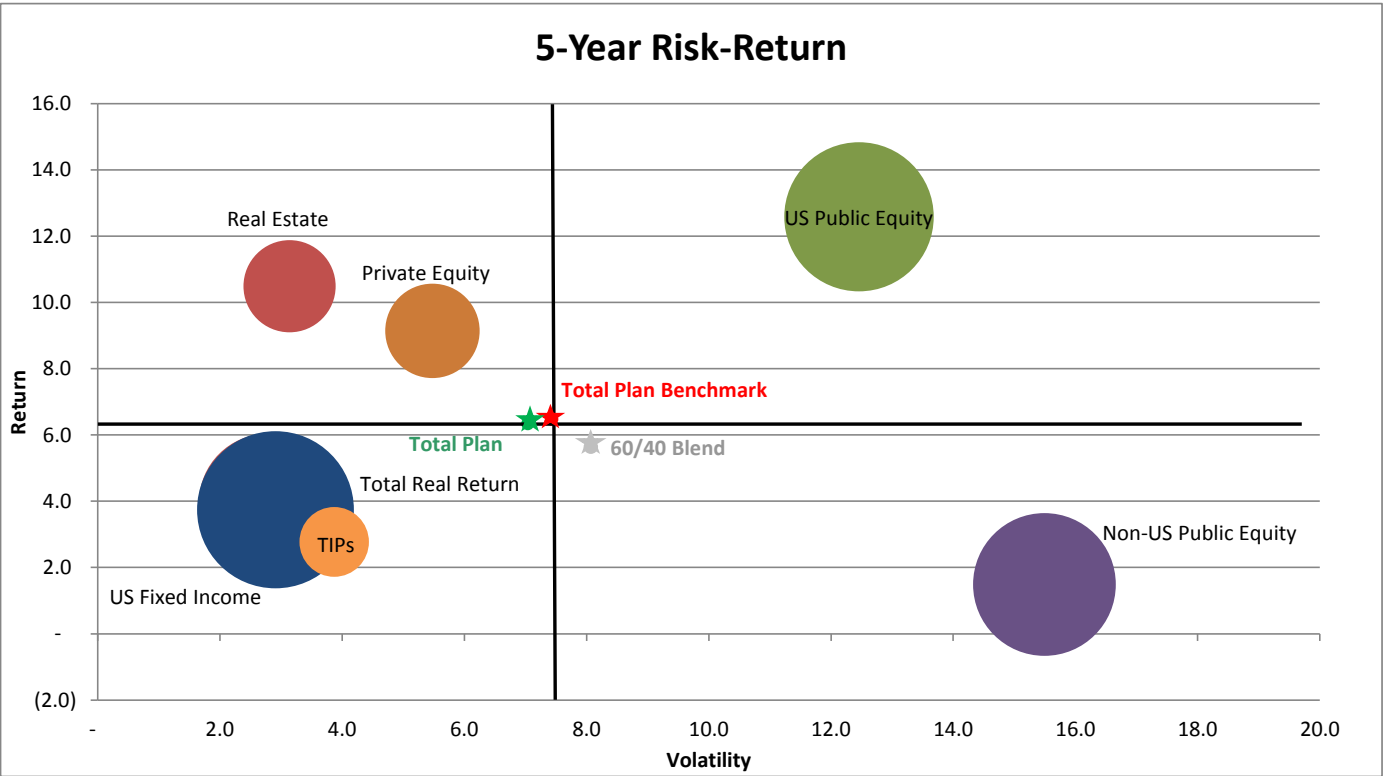
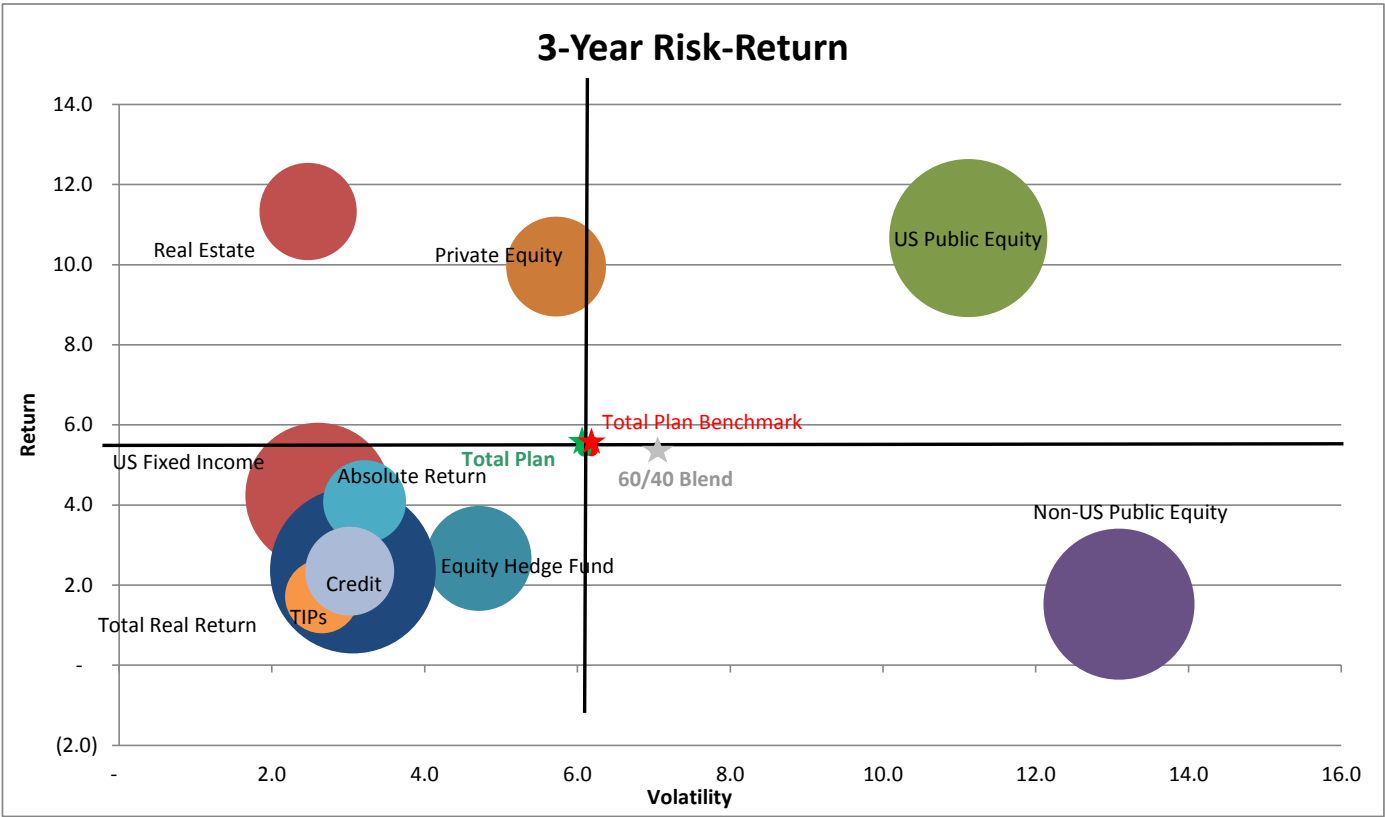
Market Proxy: Total Plan Benchmark; Risk-Free Proxy: BofA Merrill Lynch 3 Month US Treasury Bill G001

Ann Std Dev

Ann Sharpe Ratio

Ann Alpha

Beta



Risk Exposures

3 Years Ending July 31, 2016

	Annualized Return	Ann Std Dev	Beta (ACWI)	Beta (BC AGG)	Beta (GSCI)	Beta (CPI)
US Public Equity	10.67	11.12	0.91	-0.09	0.13	0.90
Non-US Public Equity	1.53	13.09	1.09	0.18	0.26	2.28
Equity Hedge Funds	2.67	4.71	0.24	-0.34	0.03	0.44
Private Equity	9.95	5.72	-0.01	-0.52	0.09	1.61
Traditional Fixed Income	4.24	2.60	0.02	0.98	-0.02	-0.18
Real Estate	11.33	2.47	0.03	0.38	-0.02	-0.48
Real Return Hedge Funds	3.55	2.65	0.09	0.16	-0.01	0.01
Inflation-Linked Bonds	1.72	2.65	0.04	0.85	0.01	0.28
Cash	0.63	0.37	0.00	-0.02	-0.00	-0.04
Russell Overlay Fd	-0.01	0.09	-0.00	-0.00	-0.00	-0.02
TOTAL PLAN	5.38	6.09	0.52	0.16	0.11	0.94

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

Ann Return

	US Pub EQ	Non-US Pub EQ	Eq HF	PE	FI	RE	RR HF	TIPS	Cash	Overlay	Total
US Pub	1.00										
Non-US P	0.85	1.00									
Eq HF	0.62	0.51	1.00								
PE	-0.01	-0.02	0.03	1.00							
FI	0.08	0.15	-0.12	-0.24	1.00						
RE	0.11	0.13	0.01	-0.31	0.40	1.00					
RR HF	0.39	0.33	0.67	-0.10	0.20	-0.05	1.00				
TIPS	0.08	0.27	-0.19	-0.19	0.86	0.37	0.16	1.00			
Cash	0.13	0.06	0.03	-0.12	-0.12	-0.21	0.15	-0.22	1.00		
Overlay	-0.38	-0.18	-0.44	-0.14	0.04	0.06	-0.32	0.02	0.02	1.00	
Total	0.95	0.96	0.62	0.03	0.18	0.14	0.43	0.24	0.08	-0.31	1.00
Tot BM	0.95	0.97	0.58	-0.03	0.17	0.12	0.40	0.22	0.08	-0.27	0.99

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

Ann Return

	US Pub Eq	Non-US Pub Eq	Eq HF	PE	FI	RE	RR HF	TIPS	Cash	Overlay	Total
US Pub	1.00										
Non-US P	0.88	1.00									
Eq HF	---	---	---								
PE	0.08	0.08	---	1.00							
FI	0.11	0.26	---	-0.22	1.00						
RE	0.11	0.18	---	-0.10	0.33	1.00					
RR HF	---	---	---	---	---	---	---				
TIPS	0.04	0.20	---	-0.12	0.78	0.22	---	1.00			
Cash	0.07	0.04	---	-0.09	-0.07	-0.04	---	-0.15	1.00		
Overlay	0.27	0.34	---	0.12	0.04	0.12	---	0.12	-0.08	1.00	
Total	0.96	0.97	---	0.11	0.25	0.17	---	0.20	0.04	0.32	1.00
Tot BM	0.96	0.97	---	0.07	0.24	0.16	---	0.16	0.04	0.36	0.99

Section VI.

Performance Overview

TOTAL NET OF FEES

7/31/2016

Account Name Benchmark Name	Market Value	% of Total	Month	YTD	Fiscal YTD	1 Year	Annualized				Inception Date
							3 Years	5 Years	10 Years	ITD	
SSGA R3000 INDEX <i>Russell 3000 Index</i>	1,212,375,581	16	3.97 3.97	7.82 7.74	3.97 3.97	4.62 4.44	10.67 10.59			13.67 13.62	10/1/2012 10/1/2012
US Public Equity <i>Russell 3000 Index</i>	1,212,375,655	16	3.97 3.97	7.82 7.74	3.97 3.97	4.62 4.44	10.67 10.59	12.59 12.99		6.95 6.94	8/1/2007 8/1/2007
SSGA MSCI EAFE <i>MSCI EAFE Net Dividend Index</i>	719,629,779	9	5.06 5.07	0.63 0.42	5.06 5.07	-7.27 -7.53	2.24 2.00			6.69 6.42	9/1/2012 9/1/2012
SSGA MSCI CANADA <i>MSCI Canada Net Dividend Index</i>	97,816,075	1	3.36 3.38	19.29 18.94	3.36 3.38	1.12 0.60	-0.07 -0.67			0.87 0.24	9/1/2012 9/1/2012
SSGA MSCI EM <i>MSCI Emerging Markets Net Dividend Index</i>	333,460,199	4	4.99 5.03	11.49 11.77	4.99 5.03	-0.80 -0.75	-0.48 -0.29			0.15 0.36	9/1/2012 9/1/2012
Non-US Public Equity <i>Total International Equity BM</i>	1,151,116,282	15	5.02 4.95	4.30 3.88	5.02 4.95	-5.14 -5.54	1.53 1.35	1.49 1.48		7.79 6.94	5/1/2009 5/1/2009
QVM Tilt <i>MSCI World Net Dividend Index</i>	1,054,130,466	14	3.67 4.22	4.54 4.91	3.67 4.22					10.62 10.68	10/1/2015 10/1/2015
Global Public Equity <i>MSCI All Country World Net Index</i>	3,417,622,403	45	4.26 4.31	5.90 5.59	4.26 4.31	-0.34 -0.44	6.05 5.87	7.68 6.62	5.32 4.63	3.85	7/1/2000 7/1/2000
Private Equity <i>ILPA All Fds Custom BM 1Q Lag</i>	522,690,468	7	0.43 0.45	5.04 2.18	0.43 0.45	6.52 5.54	9.95 11.44	9.14 13.65	7.03 9.48	9.07	2/1/1989 2/1/1989
Equity Hedge Funds <i>HFRI Equity Hedge (Total) Index</i>	560,489,710	7	1.31 2.42	-2.91 1.95	1.31 2.42	-6.46 -1.61	2.67 3.08			5.09 4.36	11/1/2011 11/1/2011
Total Equity	4,500,802,581	59	3.42	4.58	3.42	-0.43	6.04	7.32	5.29	8.84	6/1/1996
MACKAY SHIELDS <i>Barclays U.S. Aggregate Bond Index</i>	527,611,556	7	0.60 0.63	5.80 5.98	0.60 0.63	5.61 5.93	4.26 4.23			2.77 2.74	11/1/2012 11/1/2012
PYRAMIS GLOBAL ADV <i>Barclays U.S. Aggregate Bond Index</i>	540,321,593	7	0.88 0.63	6.41 5.98	0.88 0.63	6.00 5.93	4.21 4.23			2.74 2.74	11/1/2012 11/1/2012
Traditional Fixed Income <i>Barclays U.S. Aggregate Bond Index</i>	1,067,934,520	14	0.75 0.63	6.11 5.98	0.75 0.63	5.81 5.93	4.24 4.23	3.97 3.57	5.04 5.06	5.58 5.47	7/1/2000 7/1/2000

TOTAL NET OF FEES

7/31/2016

Account Name Benchmark Name	Market Value	% of Total	Month	YTD	Fiscal YTD	1 Year	Annualized				Inception Date
							3 Years	5 Years	10 Years	ITD	
Real Return Hedge Funds	492,410,369	6	0.63	2.21	0.63	0.04	3.55			4.27	11/1/2011
<i>HFRI Fund of Funds Composite Index</i>			<i>1.46</i>	<i>-1.21</i>	<i>1.46</i>	<i>-4.25</i>	<i>2.05</i>			<i>2.89</i>	<i>11/1/2011</i>
PIMCO	214,568,240	3	1.32	4.92	1.32	3.00	2.99			2.88	5/1/2013
<i>30%BoA1-3BB-BHY/70% JPMB/BBLLI</i>			<i>1.34</i>	<i>5.88</i>	<i>1.34</i>	<i>3.63</i>	<i>3.81</i>			<i>3.73</i>	<i>5/1/2013</i>
WAMCO	207,429,949	3	1.25	6.55	1.25	0.45	1.70			1.90	4/1/2013
<i>30% BoA 1-3 BB-B HY/70% CS LLI</i>			<i>1.41</i>	<i>6.19</i>	<i>1.41</i>	<i>3.10</i>	<i>3.48</i>			<i>3.55</i>	<i>4/1/2013</i>
Credit Aggregate	421,998,189	6	1.28	5.71	1.28	1.73	2.35			2.31	5/1/2013
<i>Credit Aggregate</i>			<i>1.38</i>	<i>6.04</i>	<i>1.38</i>	<i>3.36</i>	<i>3.69</i>			<i>3.62</i>	<i>5/1/2013</i>
BROWN BROTHERS HARR	285,422,046	4	0.31	5.27	0.31	3.76	1.72			0.85	11/1/2012
<i>BBH Inflation-Linked Custom BM</i>			<i>0.47</i>	<i>4.55</i>	<i>0.47</i>	<i>3.49</i>	<i>1.81</i>			<i>0.71</i>	<i>11/1/2012</i>
Inflation-Linked Bonds	285,422,046	4	0.31	5.27	0.31	3.76	1.72	2.77		4.47	11/1/2009
<i>Total Inflation Linked Custom</i>			<i>0.47</i>	<i>4.55</i>	<i>0.47</i>	<i>3.49</i>	<i>1.81</i>	<i>2.59</i>		<i>4.38</i>	<i>11/1/2009</i>
Harvest Fund Advisor	172,672,693	2	0.85	14.98	0.85	-12.62				-13.61	1/1/2015
<i>Alerian MLP Index</i>			<i>0.56</i>	<i>15.35</i>	<i>0.56</i>	<i>-9.70</i>				<i>-14.69</i>	<i>1/1/2015</i>
Priv Listed Infrastructure	83,980,893	1	0.23	7.19	0.23	7.75				2.46	3/1/2015
<i>CPI + 4%</i>			<i>0.17</i>	<i>4.06</i>	<i>0.17</i>	<i>4.84</i>				<i>5.78</i>	<i>3/1/2015</i>
Total Real Return	1,456,484,191	19	0.76	5.70	0.76	1.34	2.37	3.74	5.60	5.43	6/1/2004
Real Estate	509,318,465	7	1.16	6.24	1.16	11.42	11.33	10.49	3.23	2.83	1/1/2005
<i>NFI-ODCE Index</i>			<i>1.16</i>	<i>6.34</i>	<i>1.16</i>	<i>13.93</i>	<i>12.91</i>	<i>12.93</i>	<i>8.62</i>	<i>10.00</i>	<i>1/1/2005</i>
ERSRI CASH	98,141,788	1	0.10	0.74	0.10	0.90	0.65	0.44	2.04	13.22	7/1/2000
<i>BofA Merrill Lynch 3 Month US Treasury Bill G001</i>			<i>0.03</i>	<i>0.17</i>	<i>0.03</i>	<i>0.22</i>	<i>0.10</i>	<i>0.09</i>	<i>1.00</i>	<i>1.71</i>	<i>7/1/2000</i>
Total Cash	100,582,165	1	0.10	0.71	0.10	0.86	0.63	0.44	1.49	2.40	4/1/2004
Russell Overlay Fd	18,368,805	0	0.05	0.05	0.05	0.12	-0.01	0.12		-0.06	9/1/2008
TOTAL PLAN	7,653,923,051	100	2.37	5.10	2.37	1.55	5.38	6.34	5.02	4.61	7/1/2000
<i>Total Plan Benchmark</i>			<i>2.49</i>	<i>4.78</i>	<i>2.49</i>	<i>1.75</i>	<i>5.39</i>	<i>6.47</i>	<i>5.17</i>		<i>7/1/2000</i>
<i>60/40 Blend</i>			<i>2.84</i>	<i>5.90</i>	<i>2.84</i>	<i>2.36</i>	<i>5.39</i>	<i>5.64</i>	<i>5.18</i>		<i>7/1/2000</i>
Total Plan ex PE,RE & Priv Inf	6,537,933,225	85	2.66	5.02	2.66	0.52	4.66	5.60	4.80	6.16	4/1/1996
<i>Total Plan BM ex PE RE</i>			<i>2.73</i>	<i>4.88</i>	<i>2.73</i>	<i>0.73</i>	<i>4.77</i>	<i>5.92</i>	<i>4.80</i>		<i>4/1/1996</i>

TOTAL NET OF FEES

7/31/2016

Account Name Benchmark Name	Market Value	% of Total	Month	Cumulative		YTD	2015	2014	2013	Inception Date
				6/1/2016 - 6/30/2016	5/1/2016 - 5/31/2016					
SSGA R3000 INDEX <i>Russell 3000 Index</i>	1,212,375,581	16	3.97 3.97	0.19 0.21	1.78 1.79	7.82 7.74	0.60 0.48	12.59 12.56	33.49 33.55	10/1/2012 10/1/2012
US Public Equity <i>Russell 3000 Index</i>	1,212,375,655	16	3.97 3.97	0.19 0.21	1.78 1.79	7.82 7.74	0.60 0.48	12.57 12.56	33.48 33.55	8/1/2007 8/1/2007
SSGA MSCI EAFE <i>MSCI EAFE Net Dividend Index</i>	719,629,779	9	5.06 5.07	-3.33 -3.36	-0.80 -0.91	0.63 0.42	-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>	97,816,075	1	3.36 3.38	0.46 0.37	-3.42 -3.45	19.29 18.94	-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>	333,460,199	4	4.99 5.03	3.91 4.00	-3.73 -3.73	11.49 11.77	-15.16 -14.92	-2.34 -2.19	-2.81 -2.60	9/1/2012 9/1/2012
Non-US Public Equity <i>Total International Equity BM</i>	1,151,116,282	15	5.02 4.95	-1.19 -1.53	-1.79 -1.69	4.30 3.88	-5.77 -5.66	-3.63 -3.87	15.18 15.29	5/1/2009 5/1/2009
QVM Tilt <i>MSCI World Net Dividend Index</i>	1,054,130,466	14	3.67 4.22	-0.79 -1.12	0.69 0.56	4.54 4.91				10/1/2015 10/1/2015
Global Public Equity <i>MSCI All Country World Net Index</i>	3,417,622,403	45	4.26 4.31	-0.55 -0.61	0.18 0.13	5.90 5.59	-2.48 -2.36	4.35 4.16	23.90 22.80	7/1/2000 7/1/2000
Private Equity <i>ILPA All Fds Custom BM 1Q Lag</i>	522,690,468	7	0.43 0.45	0.01 0.41	0.47 0.00	5.04 2.18	7.08 7.14	8.02 16.40	14.86 25.14	2/1/1989 2/1/1989
Equity Hedge Funds <i>HFRI Equity Hedge (Total) Index</i>	560,489,710	7	1.31 2.42	-0.85 -0.47	1.75 0.65	-2.91 1.95	1.27 -0.97	2.64 1.81	17.11 14.28	11/1/2011 11/1/2011
Total Equity	4,500,802,581	59	3.42	-0.52	0.42	4.58	-0.95	4.51	21.95	6/1/1996
MACKAY SHIELDS <i>Barclays U.S. Aggregate Bond Index</i>	527,611,556	7	0.60 0.63	1.90 1.80	-0.04 0.03	5.80 5.98	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>	540,321,593	7	0.88 0.63	1.77 1.80	-0.03 0.03	6.41 5.98	0.01 0.55	5.83 5.97	-1.93 -2.02	11/1/2012 11/1/2012
Traditional Fixed Income <i>Barclays U.S. Aggregate Bond Index</i>	1,067,934,520	14	0.75 0.63	1.84 1.80	-0.04 0.03	6.11 5.98	0.25 0.55	5.91 5.97	-1.86 -2.02	7/1/2000 7/1/2000

TOTAL NET OF FEES

7/31/2016

Account Name Benchmark Name	Market Value	% of Total	Month	Cumulative		YTD	2015	2014	2013	Inception Date
				6/1/2016 - 6/30/2016	5/1/2016 - 5/31/2016					
Real Return Hedge Funds	492,410,369	6	0.63	0.39	0.46	2.21	0.86	4.70	6.96	11/1/2011
HFRI Fund of Funds Composite Index			1.46	-0.55	0.56	-1.21	-0.27	3.37	8.96	11/1/2011
PIMCO	214,568,240	3	1.32	-0.16	0.66	4.92	1.13	1.22		5/1/2013
30%BoA1-3BB-BHY/70% JPMB/BBLLI			1.34	0.10	0.74	5.88	1.00	2.11		5/1/2013
WAMCO	207,429,949	3	1.25	0.29	1.56	6.55	-3.69	0.10		4/1/2013
30% BoA 1-3 BB-B HY/70% CS LLI			1.41	0.22	0.89	6.19	-0.18	2.03		4/1/2013
Credit Aggregate	421,998,189	6	1.28	0.06	1.10	5.71	-1.29	0.66		5/1/2013
Credit Aggregate			1.38	0.16	0.82	6.04	0.49	2.11		5/1/2013
BROWN BROTHERS HARR	285,422,046	4	0.31	1.65	-0.58	5.27	-0.26	1.72	-5.03	11/1/2012
BBH Inflation-Linked Custom BM			0.47	1.47	-0.11	4.55	0.14	2.04	-5.13	11/1/2012
Inflation-Linked Bonds	285,422,046	4	0.31	1.65	-0.58	5.27	-0.26	1.72	-5.03	11/1/2009
Total Inflation Linked Custom			0.47	1.47	-0.11	4.55	0.14	2.04	-5.13	11/1/2009
Harvest Fund Advisor	172,672,693	2	0.85	5.17	2.46	14.98	-31.01			1/1/2015
Alerian MLP Index			0.56	5.13	2.53	15.35	-32.59			1/1/2015
Priv Listed Infrastructure	83,980,893	1	0.23	0.03	1.67	7.19				3/1/2015
CPI + 4%			0.17	0.65	0.72	4.06				3/1/2015
Total Real Return	1,456,484,191	19	0.76	1.06	0.73	5.70	-2.76	2.74	3.39	6/1/2004
Real Estate	509,318,465	7	1.16	0.36	0.90	6.24	14.22	10.90	5.65	1/1/2005
NFI-ODCE Index			1.16	1.95	0.00	6.34	13.86	12.26	12.00	1/1/2005
ERSRI CASH	98,141,788	1	0.10	0.03	0.05	0.74	0.40	0.75	0.14	7/1/2000
BofA Merrill Lynch 3 Month US Treasury Bill G001			0.03	0.04	0.01	0.17	0.05	0.03	0.07	7/1/2000
Total Cash	100,582,165	1	0.10	0.03	0.05	0.71	0.38	0.74	0.13	4/1/2004
Russell Overlay Fd	18,368,805	0	0.05	-0.02	-0.01	0.05	0.00	-0.02	0.17	9/1/2008
TOTAL PLAN	7,653,923,051	100	2.37	0.17	0.43	5.10	-0.28	4.52	14.06	7/1/2000
Total Plan Benchmark			2.49	0.20	0.21	4.78	-0.25	5.05	14.47	7/1/2000
60/40 Blend			2.84	0.36	0.09	5.90	-0.98	4.96	12.32	7/1/2000
Total Plan ex Overlay	7,635,554,246	100	2.33	0.19	0.44	5.05	-0.28	4.54	13.87	8/1/2008
Total Plan Benchmark			2.49	0.20	0.21	4.78	-0.25	5.05	14.47	8/1/2008

TOTAL NET OF FEES

7/31/2016

Account Name Benchmark Name	Market Value	% of Total	Month	Cumulative		YTD	2015	2014	2013	Inception Date
				6/1/2016 - 6/30/2016	5/1/2016 - 5/31/2016					
Total Plan ex PE,RE & Priv Inf	6,537,933,225	85	2.66	0.17	0.38	5.02	-1.68	3.98	14.33	4/1/1996
Total Plan BM ex PE RE			2.73	0.08	0.24	4.88	-1.64	3.90	14.57	4/1/1996

END NOTES
7/31/2016

1	RI6G23000000	TOTAL PLAN	<p>Month - Current Month</p> <p>Cumulative Months - Prior Month and Second Prior Month</p> <p>Monthly Reporting for Private Equity and Real Estate skew performance on an actual and benchmark basis due to nature of valuations</p> <p>2014, 2013, 2012 - Calendar Years</p>
	RI6G23000000	TOTAL PLAN	<p>The current composition of the Total Plan Benchmark is as follows:</p> <p>15.0% Barclays U.S. Aggregate Bond Index</p> <p>44.5% MSCI All Country World Net Index</p> <p>7.0% HFRI Fund of Funds Composite Index</p> <p>3.0% BofA Merrill Lynch 3 Month US Treasury Bill</p> <p>8.0% HFRI Equity Hedge (Total) Index</p> <p>5.0% NFI-ODCE Index</p> <p>4.0% Barclays U.S. Treasury Inflation Notes: 1-10 Year Index</p> <p>5.0% Credit Aggregate Custom: 30% BoA1-3BB-B HY/35%CSInstLLI/35% JPM BB/B Leveraged Loan Index</p> <p>7.0% ILPA All Funds Index</p> <p>1.5% Alerian MLP Total Return Index</p>

Employees' Retirement System of the State of Rhode Island

Hedge Fund Portfolio

Portfolio Performance Summary

Estimated as of July 31, 2016

Fund	Market Value	Actual %	Returns								Std Dev	Sharpe Ratio	Incep Date
			Jul	QTD	YTD	FYTD	1 Year	3 Year	5 Year	Incep			
Global Equities													
Ascend ERSRI Fund LP	68,185,855	6.5%	0.12%	0.12%	-6.96%	0.12%	-7.66%	2.23%	-	2.73%	3.44%	0.69	Nov-11
Davidson Kempner Institutional Partners, L.P.	78,129,407	7.4%	0.75%	0.75%	3.54%	0.75%	2.88%	4.22%	-	5.72%	2.10%	2.48	Nov-11
Elliott Associates, L.P.	90,124,099	8.5%	1.00%	1.00%	6.26%	1.00%	6.31%	8.08%	-	8.94%	3.85%	2.15	Nov-11
ESG Cross Border Equity Fund LP	40,904,008	3.9%	-0.50%	-0.50%	-6.90%	-0.50%	-11.27%	-	-	-8.82%	8.24%	-1.12	Jun-14
Indus Asia Pacific Fund, LP	300,157	0.0%	0.00%	0.00%	-33.83%	0.00%	-54.92%	-27.45%	-	-17.47%	18.09%	-0.97	Jan-12
Luxor Capital Partners, LP - Holdback	5,680,507	0.5%	0.00%	0.00%	-	0.00%	-	-	-	0.00%	-	-	Jul-16
PFM Diversified Fund, L.P.	76,702,670	7.3%	2.27%	2.27%	-7.84%	2.27%	-10.77%	3.81%	-	5.76%	9.18%	0.62	Mar-12
Samlyn Onshore Fund, L.P.	103,428,453	9.8%	1.36%	1.36%	-3.25%	1.36%	-10.35%	4.47%	-	7.17%	6.59%	1.03	Jan-12
Viking Global Equities, LP	99,046,856	9.4%	2.80%	2.80%	-3.21%	2.80%	-4.38%	9.76%	-	11.34%	7.63%	1.40	Dec-11
Total Global Equities	562,502,012	53.3%	1.26%	1.26%	-2.67%	1.26%	-6.53%	2.77%	-	5.10%	4.49%	1.05	Nov-11
MSCI AC World Index Free - Net			4.31%	4.31%	5.59%	4.31%	-0.44%	5.87%	-	8.64%	11.75%	0.73	Nov-11
Russell 3000 Index (DRI)			3.97%	3.97%	7.74%	3.97%	4.44%	10.59%	-	14.53%	10.71%	1.29	Nov-11
HFRI Equity Hedge (Total) Index			2.37%	2.37%	1.87%	2.37%	-1.68%	3.05%	-	4.34%	6.38%	0.64	Nov-11
Real Return													
Brevan Howard LP	76,597,249	7.3%	-1.12%	-1.12%	-2.28%	-1.12%	-6.03%	-1.77%	-	0.44%	5.26%	0.04	Nov-11
Brigade Leveraged Capital Structures Fund LP	57,635,613	5.5%	2.09%	2.09%	15.58%	2.09%	1.40%	2.18%	-	3.27%	5.80%	0.52	Mar-12
Capula Global Relative Value Fund Ltd.	64,956,603	6.2%	0.51%	0.51%	3.58%	0.51%	6.67%	7.50%	-	5.77%	1.86%	2.83	Dec-11
Claren Road Credit Fund, Ltd.	6,181,261	0.6%	-0.09%	-0.09%	-0.26%	-0.09%	0.07%	-5.45%	-	-4.77%	7.18%	-0.69	Apr-13
DE Shaw Composite Fund LLC	93,688,525	8.9%	1.60%	1.60%	4.84%	1.60%	9.56%	13.40%	-	14.13%	4.29%	3.03	Nov-11
Graham Absolute Return Trading Ltd.	55,824,724	5.3%	0.19%	0.19%	0.80%	0.19%	-1.97%	1.94%	-	2.43%	4.42%	0.48	Jan-12
OZ Domestic Partners II, L.P.	100,233,927	9.5%	0.48%	0.48%	-1.79%	0.48%	-6.81%	3.15%	-	6.30%	4.74%	1.24	Nov-11
Winton Futures Fund Limited	37,250,539	3.5%	1.15%	1.15%	1.06%	1.15%	-0.36%	6.97%	-	4.75%	8.92%	0.52	Dec-11
Total Real Return	492,368,442	46.7%	0.63%	0.63%	2.33%	0.63%	0.04%	3.43%	-	4.61%	2.68%	1.56	Nov-11
ML 3-month T-Bills			0.03%	0.03%	0.18%	0.03%	0.22%	0.10%	-	0.09%	0.04%	-	Nov-11
HFRI Fund of Funds Composite Index			1.29%	1.29%	-1.37%	1.29%	-4.41%	1.99%	-	2.86%	3.60%	0.70	Nov-11
Total Hedge Fund Portfolio	1,054,870,454	100.0%	0.96%	0.96%	-0.39%	0.96%	-3.55%	3.08%	-	4.72%	3.35%	1.28	Nov-11
HFRI Fund of Funds Composite Index			1.29%	1.29%	-1.37%	1.29%	-4.41%	1.99%	-	2.86%	3.60%	0.70	Nov-11

Employees' Retirement System of the State of Rhode Island

Hedge Fund Portfolio

Portfolio Performance Summary

Estimated as of July 31, 2016

Fund	Market Value	Actual %	Returns								Std Dev	Sharpe Ratio	Incep Date
			Jul	QTD	YTD	FYTD	1 Year	3 Year	5 Year	Incep			
Market Indices													
Libor3Month			0.06%	0.06%	0.38%	0.06%	0.55%	0.35%	-	0.36%	0.04%	-	Nov-11
Barclays Aggregate Bond Index			0.63%	0.63%	5.99%	0.63%	5.96%	4.24%	-	3.27%	2.72%	1.07	Nov-11
Barclays High Yield Credit Bond Index			2.70%	2.70%	12.00%	2.70%	4.98%	4.46%	-	6.86%	5.80%	1.11	Nov-11
S&P 500 TR			3.69%	3.69%	7.66%	3.69%	5.61%	11.16%	-	14.73%	10.47%	1.34	Nov-11
MSCI EAFE - Net			5.07%	5.07%	0.42%	5.07%	-7.53%	2.00%	-	5.43%	13.94%	0.42	Nov-11
MSCI EMF (Emerging Markets Free) - Net			5.03%	5.03%	11.77%	5.03%	-0.75%	-0.29%	-	-0.26%	16.71%	0.04	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.

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Employees' Retirement System of the State of Rhode Island

Hedge Fund Portfolio

Fund Level Performance Report

Estimated as of July 31, 2016

Fund						Trailing Returns			Calendar Year Returns					5 Yr	Sharpe Ratio			Start
	QTD	YTD	Jul	Jun	May	1 Year	3 Year	5 Year	2015	2014	2013	2012	2011	Std Dev	3 yr	5 yr	Incep.	Date
Global Equities																		
Ascend Partners Fund II LP	0.12%	-4.67%	0.12%	-0.41%	0.30%	-4.48%	3.23%	2.27%	2.66%	5.09%	12.22%	2.50%	-3.02%	3.57%	0.84	0.54	0.95	Jan-04
Davidson Kempner Institutional Partners, L.P.	0.75%	3.44%	0.75%	0.23%	1.30%	2.79%	4.17%	4.62%	1.51%	4.45%	9.52%	6.87%	1.27%	2.58%	1.74	1.62	1.55	Mar-96
Elliott Associates, L.P.	1.00%	6.14%	1.00%	0.00%	-0.40%	6.24%	7.65%	8.23%	2.51%	8.24%	12.44%	13.18%	3.94%	3.64%	1.81	2.10	1.89	Jan-90
ESG Cross Border Equity Fund LP	-0.50%	-6.95%	-0.50%	0.80%	2.50%	-11.36%	-5.31%	-0.10%	-5.06%	-7.16%	13.59%	6.74%	9.45%	7.11%	-0.72	-0.03	0.68	Jan-04
Indus Asia Pacific Fund, LP	0.00%	-33.83%	0.00%	-19.32%	-17.48%	-54.92%	-27.28%	-17.07%	-33.23%	-15.60%	4.97%	8.21%	-7.18%	17.63%	-1.38	-0.98	-0.03	Dec-00
Luxor Capital Partners, LP	0.55%	-7.41%	0.55%	-1.12%	0.22%	-26.22%	-10.15%	-4.79%	-19.05%	-9.83%	19.53%	5.21%	-2.89%	8.57%	-1.14	-0.57	0.72	Apr-02
PFM Diversified Fund, L.P.	2.27%	-7.79%	2.27%	-1.59%	0.50%	-10.60%	3.72%	5.00%	8.10%	2.84%	22.17%	5.59%	-3.35%	8.63%	0.40	0.57	0.81	Nov-04
Samlyn Onshore Fund, L.P.	1.40%	-3.26%	1.40%	-1.30%	2.23%	-10.46%	4.15%	5.03%	-1.29%	9.24%	18.93%	10.49%	-5.05%	7.65%	0.55	0.63	0.98	Mar-07
Viking Global Equities, LP	2.80%	-2.99%	2.80%	-2.50%	5.70%	-4.25%	9.74%	10.83%	8.27%	13.47%	22.65%	12.75%	7.71%	7.67%	1.04	1.34	1.44	Oct-99
Real Return																		
Brevan Howard LP	-1.12%	-2.27%	-1.12%	0.91%	-0.29%	-6.02%	-1.78%	1.66%	-1.98%	-0.78%	2.68%	3.91%	12.21%	5.93%	-0.39	0.25	0.92	Sep-05
Brigade Leveraged Capital Structures Fund LP	2.09%	15.58%	2.09%	0.97%	2.55%	1.37%	2.18%	2.87%	-10.73%	0.61%	6.13%	6.91%	2.55%	5.55%	0.30	0.47	0.64	Jan-07
Capula Global Relative Value Fund Ltd.	0.51%	3.58%	0.51%	0.43%	0.15%	6.69%	7.50%	6.26%	7.54%	8.14%	7.60%	0.41%	6.19%	2.03%	4.71	2.82	1.86	Oct-05
Claren Road Credit Fund, Ltd.	-0.09%	1.87%	-0.09%	-0.62%	0.89%	1.10%	-5.37%	-2.00%	-7.96%	-10.10%	5.43%	1.49%	6.88%	6.23%	-0.80	-0.35	0.68	Jan-06
DE Shaw Composite Fund LLC	1.50%	4.46%	1.50%	-0.60%	-0.30%	9.54%	12.77%	11.89%	14.62%	15.57%	11.51%	13.94%	3.69%	4.27%	2.78	2.58	1.58	Mar-01
Graham Absolute Return Trading Ltd.	0.19%	0.74%	0.19%	0.60%	-0.05%	-1.96%	5.82%	6.06%	1.50%	10.42%	10.50%	9.29%	4.64%	7.66%	0.69	0.76	1.02	Jan-05
OZ Domestic Partners II, L.P.	0.48%	-1.79%	0.48%	-0.92%	1.61%	-6.72%	2.96%	4.93%	-0.44%	5.45%	14.20%	12.01%	0.17%	4.71%	0.52	0.97	0.99	Jan-04
Winton Futures Fund Limited	1.15%	1.06%	1.15%	3.95%	-1.73%	-0.36%	6.97%	4.48%	0.95%	13.88%	9.43%	-3.56%	6.29%	8.75%	0.70	0.50	0.70	Oct-97
Benchmark																		
HFRI Fund of Funds Composite Index	1.29%	-1.37%	1.29%	-0.54%	0.56%	-4.41%	1.99%	1.81%	-0.27%	3.37%	8.96%	4.79%	-5.72%	3.99%				Jan-90
HFRI Fund Weighted Composite Index	1.74%	2.96%	1.74%	0.39%	0.37%	-0.18%	3.05%	2.68%	-1.12%	2.98%	9.13%	6.36%	-5.25%	4.93%				Jan-90
Market Indices																		
3 Month Libor - BOM	0.06%	0.38%	0.06%	0.05%	0.06%	0.55%	0.35%	0.36%	0.33%	0.23%	0.27%	0.42%	0.35%	0.04%				Jan-87
Barclays Aggregate Bond Index	0.63%	5.99%	0.63%	1.80%	0.03%	5.96%	4.24%	3.57%	0.57%	5.94%	-2.02%	4.23%	7.86%	2.71%				Jan-76
Barclays High Yield Credit Bond Index	2.70%	12.00%	2.70%	0.92%	0.62%	4.98%	4.46%	6.17%	-4.46%	2.46%	7.46%	15.81%	4.98%	6.71%				Jul-83
S&P 500 (TR)	3.69%	7.66%	3.69%	0.26%	1.80%	5.61%	11.16%	13.38%	1.38%	13.69%	32.39%	16.00%	2.11%	12.08%				Jun-88
MSCI EAFE - Net - USD	5.07%	0.42%	5.07%	-3.36%	-0.91%	-7.53%	2.00%	3.02%	-0.81%	-4.90%	22.78%	17.31%	-12.13%	15.50%				Dec-69
MSCI EMF (EMERGING MARKETS FREE) - Net - USD	5.03%	11.77%	5.03%	4.00%	-3.73%	-0.75%	-0.29%	-2.75%	-14.92%	-2.19%	-2.60%	18.23%	-18.42%	18.98%				Dec-87

Note: The above is manager composite history.

Portfolio Summary

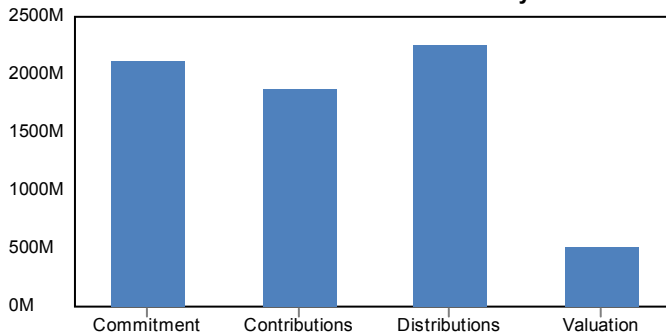
7/31/2016

All Portfolio Investments

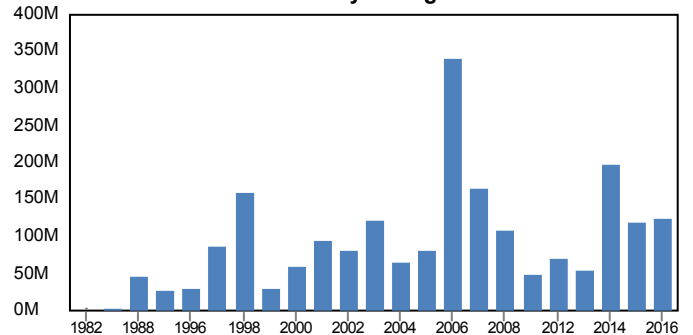
Performance Summary

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	5,454,104	0.80	-21.70	-87.68
	Buyout	75	1,240,681,887	1,145,596,622	1,475,803,377	272,904,387	1.53	12.98	13.03
	Direct Lending	3	75,000,000	37,192,543	16,517,623	25,033,835	1.12	7.34	7.26
	Distressed Debt	14	238,000,000	213,978,869	224,016,572	69,698,317	1.37	10.29	9.94
	Energy	8	148,000,000	132,472,924	177,320,996	20,881,400	1.50	23.76	6.06
	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	58,305,248	9,987,035	1.24	6.37	4.96
	Venture Capital	22	281,250,000	248,530,462	207,450,811	115,068,943	1.30	5.28	2.07
	Total: Private Equity Funds	128	2,117,931,887	1,884,489,847	2,266,163,448	519,028,021	1.48	13.34	10.77
Total:		128	2,117,931,887	1,884,489,847	2,266,163,448	519,028,021	1.48	13.34	10.77

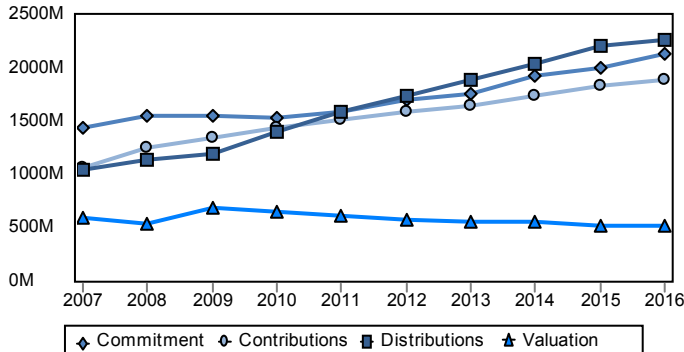
Cash Flow and Valuation Summary



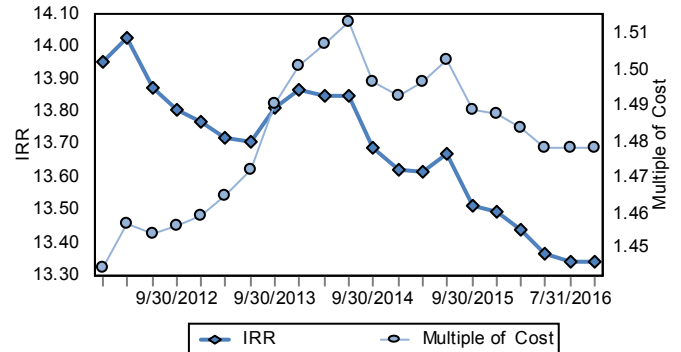
Commitment by Vintage Year



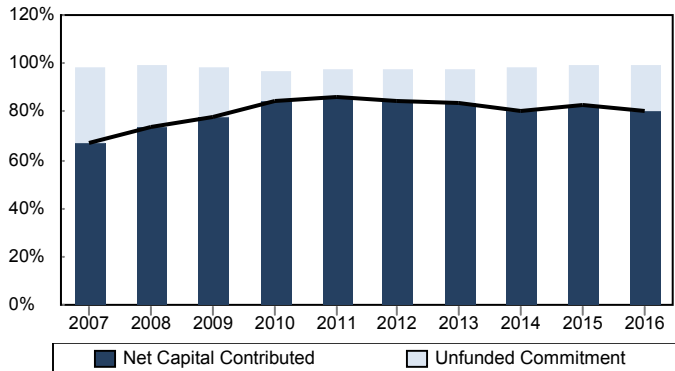
Historical Cash Flows and Valuation



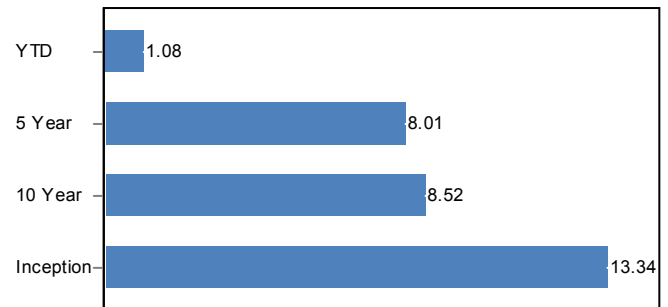
Historical Performance



Historical Percent Funded



Period IRRs



State of Rhode Island Private Equity Unfunded Commitment July 2016

Partnership Investment	Total Commitment	Unfunded
Advent Global Private Equity Fund VII	\$ 20,000,000.00	\$ 2,930,000.00
Advent Global Private Equity Fund VIII	\$ 20,000,000.00	\$ 20,000,000.00
Alta BioPharma Partners III	\$ 15,000,000.00	\$ 750,000.00
Alta Partners VIII	\$ 15,000,000.00	\$ -
Aurora Equity Partners III	\$ 15,000,000.00	\$ 835,850.00
Avenue Special Situations Fund IV	\$ 20,000,000.00	\$ -
Avenue V	\$ 20,000,000.00	\$ -
Bain X	\$ 25,000,000.00	\$ 762,500.00
Baring Asia Private Equity Fund VI, L.P.	\$ 15,000,000.00	\$ 10,459,401.64
Birch Hill Equity Partners III	\$ 13,802,202.00	\$ 257,827.42
Braemar Energy Ventures III	\$ 10,000,000.00	\$ 2,886,429.00
CapitalSpring Investment Partners V	\$ 30,000,000.00	\$ 30,000,000.00
Carlyle Asia Partners IV	\$ 30,000,000.00	\$ 15,096,343.00
Castile III	\$ 5,000,000.00	\$ -
Centerbridge	\$ 15,000,000.00	\$ 1,095,594.00
Centerbridge Capital Partners III	\$ 25,000,000.00	\$ 18,606,598.00
Centerbridge Special Credit Partners II	\$ 25,000,000.00	\$ 2,500,000.00
Charterhouse Capital Partners VIII	\$ 15,399,995.63	\$ 632,367.92
Coller International Capital IV	\$ 14,250,000.00	\$ 150,000.00
Coller International Capital V	\$ 15,000,000.00	\$ 3,270,000.00
Constellation III	\$ 15,000,000.00	\$ 1,235,787.33
CVC European Equity Partners III	\$ 20,000,000.00	\$ 899,966.00
CVC European Equity Partners IV	\$ 18,438,090.00	\$ 2,145,104.22
CVC V	\$ 22,349,200.00	\$ 1,037,402.77
CVC VI	\$ 16,761,900.00	\$ 10,689,710.80
EnCap Energy Fund IX	\$ 18,000,000.00	\$ 4,837,049.43
EnCap Energy Fund X	\$ 25,000,000.00	\$ 19,539,175.87
Fenway Partners Capital Fund II	\$ 15,000,000.00	\$ 232,336.00
Fenway III	\$ 15,000,000.00	\$ 1,266,241.00
First Reserve Fund X	\$ 20,000,000.00	\$ -
First Reserve Fund XI	\$ 20,000,000.00	\$ -
Focus Ventures III	\$ 15,000,000.00	\$ -
Garrison Opportunity Fund IV	\$ 30,000,000.00	\$ 14,382,700.00
Granite Global Ventures II	\$ 15,000,000.00	\$ 675,000.00
Granite Global Ventures III	\$ 15,000,000.00	\$ 375,000.00
Green Equity Investors V	\$ 20,000,000.00	\$ 1,731,092.40
Industry Ventures Partnership Holdings III	\$ 25,000,000.00	\$ 8,500,000.00
Industry Ventures Partnership Holdings III -C	\$ 15,000,000.00	\$ 12,675,000.00
Industry Ventures Partnership Holdings IV	\$ 10,000,000.00	\$ 9,600,000.00
Kayne Anderson Energy Fund III	\$ 15,000,000.00	\$ 366,426.00
Kayne Anderson Energy Fund IV	\$ 15,000,000.00	\$ -
Leapfrog Ventures II	\$ 10,000,000.00	\$ 510,000.00
Leeds Weld Equity Partners IV	\$ 10,000,000.00	\$ 1,099,639.00
Lighthouse Capital Partners V	\$ 11,250,000.00	\$ 787,500.00
Lighthouse Capital Partners VI	\$ 15,000,000.00	\$ 750,000.00

LNK Partners	\$	12,500,000.00	\$	439,918.52
MHR Institutional Partners III	\$	20,000,000.00	\$	6,974,396.00
Nautic Partners V	\$	20,000,000.00	\$	641,734.81
Nautic Partners VI	\$	20,000,000.00	\$	609,668.96
Nautic Partners VII	\$	20,000,000.00	\$	9,506,518.76
Nautic Partners VIII	\$	20,000,000.00	\$	20,000,000.00
Nordic Capital Fund V	\$	16,332,292.50	\$	-
Nordic Capital Fund VI	\$	16,761,900.00	\$	-
Nordic VII	\$	16,761,900.00	\$	1,609,289.14
Nordic VIII	\$	16,761,900.00	\$	8,032,672.05
Oaktree European Principal Fund III	\$	20,000,000.00	\$	5,271,496.00
Paine & Partners Capital Fund IV	\$	30,000,000.00	\$	23,197,996.00
Palladin III	\$	10,000,000.00	\$	323,410.00
Parthenon Investors II	\$	23,960,000.00	\$	1,821,022.00
Point 406	\$	10,000,000.00	\$	580,000.00
Point Judith II	\$	5,000,000.00	\$	216,949.62
Providence Equity Partners IV	\$	25,000,000.00	\$	1,995,291.00
Providence Equity Partners V	\$	25,000,000.00	\$	2,196,745.00
Providence Equity Partners VI	\$	25,000,000.00	\$	1,394,069.00
Providence Equity Partners VII	\$	25,000,000.00	\$	10,723,763.00
Riverside VI	\$	20,000,000.00	\$	8,668,713.00
Riverside Micro-Cap Fund III	\$	20,000,000.00	\$	2,241,683.00
Sorenson Capital Partners III	\$	30,000,000.00	\$	19,447,569.00
Southvest Partners VII	\$	30,000,000.00	\$	29,502,850.99
Summit Partners	\$	20,000,000.00	\$	-
Summit Partners II	\$	25,000,000.00	\$	8,548,515.00
Tenex Capital Partners II	\$	25,000,000.00	\$	23,114,051.80
Thomas McNerney & Partners	\$	15,000,000.00	\$	-
Thomas McNerney & Partners II	\$	15,000,000.00	\$	862,500.00
TPG Partners IV	\$	13,953,742.00	\$	64,421.00
TPG Partners V	\$	20,000,000.00	\$	1,774,959.00
TPG VI	\$	10,000,000.00	\$	938,203.00
Trilantic IV	\$	11,098,351.00	\$	1,229,732.52
W Capital Partners	\$	15,000,000.00	\$	802,500.00
W Capital Partners II	\$	15,000,000.00	\$	1,596,691.00
WLR	\$	8,000,000.00	\$	765,256.00

Total Private Equity \$ 1,461,381,473.13 \$ 398,660,626.97

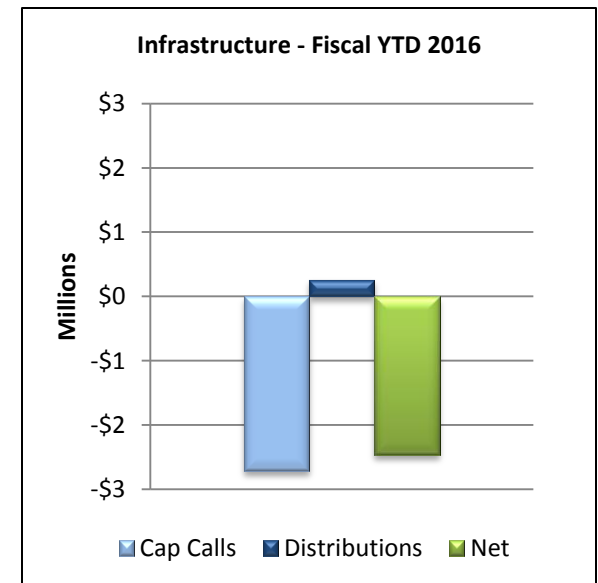
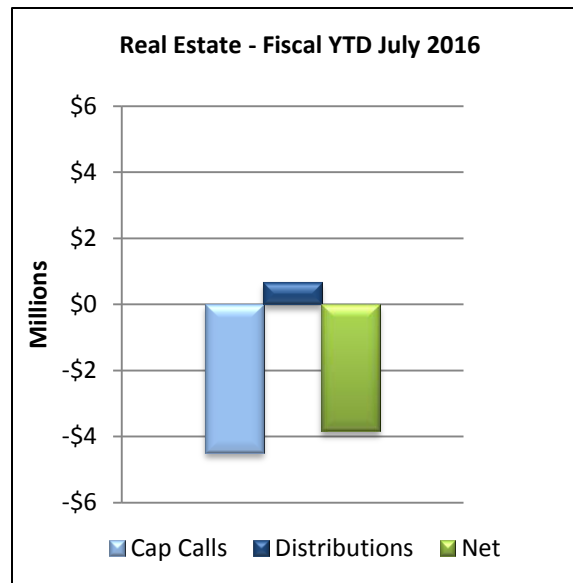
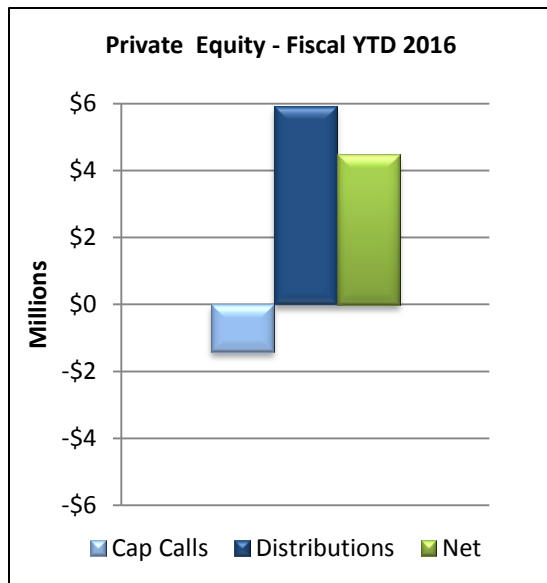
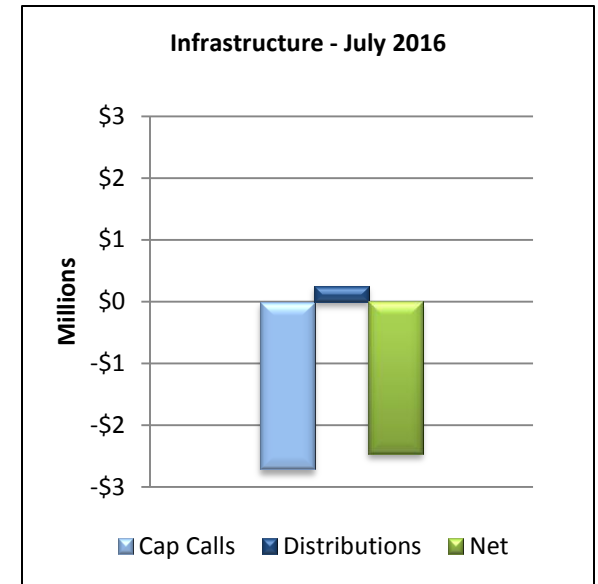
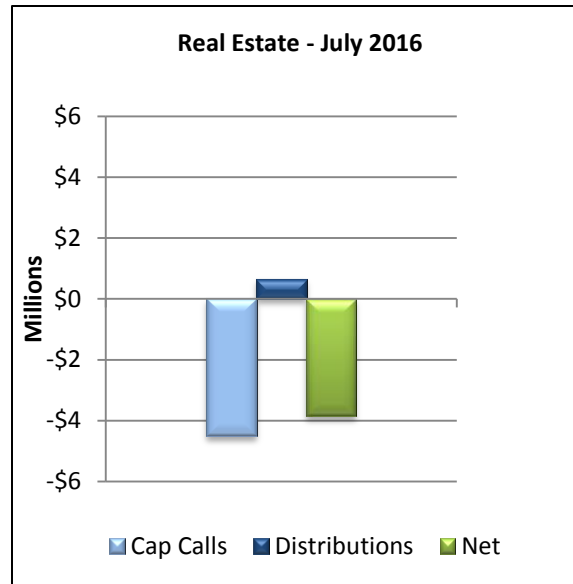
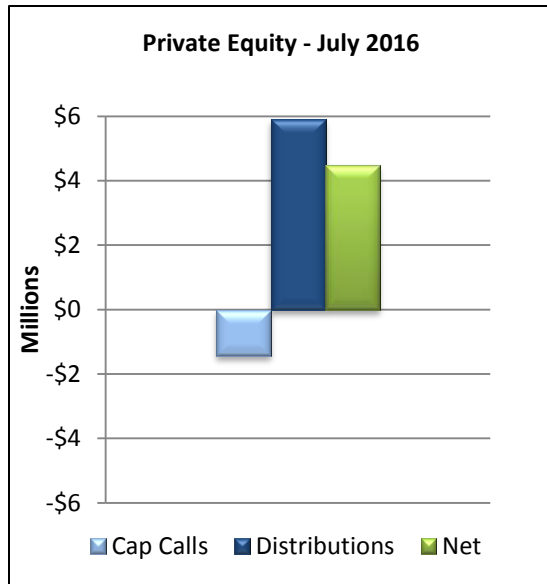
State of Rhode Island Real Estate Unfunded Commitment July2016

Partnership Investment	Total Commitment	Unfunded
AEW	\$ 60,000,000.00	\$ -
Crow Holdings Retail Fund, LP	\$ 24,000,000.00	\$ 17,786,307.00
Exeter Industrial Value Fund III	\$ 30,000,000.00	\$ 13,500,000.00
GEM Realty V	\$ 50,000,000.00	\$ 24,375,625.00
Heitman	\$ 60,000,000.00	\$ -
IC Berkeley Partners III	\$ 18,000,000.00	\$ 1,961,673.88
IC Berkeley Partners IV	\$ 15,000,000.00	\$ 11,912,999.99
JPMorgan Strategic Property Fund	\$ 75,000,000.00	\$ -
Lone Star Real Estate Fund IV	\$ 24,260,817.00	\$ 17,575,853.40
Magna Hotel	\$ 4,000,000.00	\$ 596,956.57
Morgan Stanley Prime Property Fund	\$ 35,000,000.00	\$ -
Prudential Real Estate Investors (PRISA)	\$ 50,000,000.00	\$ -
Tri Continental Fund VII	\$ 15,000,000.00	\$ 428,467.00
Waterton Venture Fund XII	\$ 35,000,000.00	\$ 12,997,639.00
Total Real Estate	\$ 495,260,817.00	\$ 101,135,521.84

State of Rhode Island Infrastructure Unfunded Commitment July 2016

Partnership Investment	Total Commitment	Unfunded
Harvest Fund Advisors, LLC	\$ 185,000,000.00	\$ -
IFM Global Infrastructure, L.P.	\$ 50,000,000.00	\$ -
ISQ Global Infrastructure Fund, L.P.	\$ 50,000,000.00	\$ 33,342,192.00
Stonepeak Infrastructure Fund II, L.P.	\$ 43,000,000.00	\$ 32,130,342.00
Total Infrastructure	\$ 328,000,000.00	\$ 65,472,534.00

Private Equity, Real Estate, and Infrastructure Cash Flows



Section VII.

Cash Flow

Monthly Valuation Change

Period : 2016-07-01 - 2016-07-31

Category	Source Account Name	Closing Balance	Market Value Increase/(Decrease)	Transfer In/(Out)	Opening Balance
Grand Total		7,653,923,051.49	177,861,509.56	(24,590,318.00)	7,500,651,859.93
Total Global Equity		3,977,901,808.75	136,817,993.20	(17,576,199.01)	3,858,660,014.56
Global Equity		3,417,412,098.78	129,402,574.43	10,100,800.99	3,277,908,723.36
	SSGA R3000 INDEX	1,212,375,580.86	46,364,984.93	(147,500,000.00)	1,313,510,595.93
	SSGA MSCI EAFE	719,629,779.09	32,537,535.84	(93,750,000.00)	780,842,243.25
	SSGA MSCI CANADA	97,816,074.51	3,283,547.18	(8,750,000.00)	103,282,527.33
	SSGA MSCI EM	333,460,198.55	15,835,462.50	0.00	317,624,736.05
	QVM TILT	1,054,130,465.77	31,381,043.98	260,100,800.99	762,648,620.80
Global Equity Hedge Funds		560,489,709.97	7,415,418.77	(27,677,000.00)	580,751,291.20
	DAVIDSON KEMPNER	78,129,407.49	577,638.73	0.00	77,551,768.76
	ELLIOTT ASSOCIATES	88,107,150.51	1,221,287.23	0.00	86,885,863.28
	INDUS ASIA PACIFIC	304,804.63	4,647.89	0.00	300,156.74
	PFM DIVERSIFIED	76,702,669.77	1,702,503.77	0.00	75,000,166.00
	SAMLYN ON/OFFSHORE	103,428,452.45	1,387,974.19	0.00	102,040,478.26
	VIKING GLOBAL EQUITY	99,046,856.03	2,644,506.01	0.00	96,402,350.02
	LUXOR CAP PTNS LP	5,680,506.14	(4,772.52)	(27,677,000.00)	33,362,278.66
	ESG CBE FUND LP	40,904,007.69	(201,819.80)	0.00	41,105,827.49
	ASCENT ERSRI FUND LP	68,185,855.26	83,453.27	0.00	68,102,401.99
Private Equity		522,690,467.94	2,243,424.84	(4,733,103.19)	525,180,146.29
Private Equity		522,690,467.94	2,243,424.84	(4,733,103.19)	525,180,146.29
	PRIVATE EQUITY	522,690,467.94	2,243,424.84	(4,733,103.19)	525,180,146.29
Total Fixed Income		1,067,933,148.58	7,969,173.91	(52,000,000.00)	1,111,963,974.67
Fixed Income		1,067,933,148.58	7,969,173.91	(52,000,000.00)	1,111,963,974.67
	MACKAY SHIELDS	527,611,555.86	3,222,331.68	(26,000,000.00)	550,389,224.18
	PYRAMIS GLOBAL ADV	540,321,592.72	4,746,842.23	(26,000,000.00)	561,574,750.49
Total Real Return		1,456,484,190.65	10,991,633.72	(6,640,874.21)	1,452,133,431.14
Alternative Absolute Return		363,594,963.84	1,728,529.24	0.00	361,866,434.60
	BREXAN HOWARD	76,597,249.45	(818,804.33)	0.00	77,416,053.78
	DE SHAW	93,688,524.84	1,484,848.40	0.00	92,203,676.44
	OZ DOMESTIC PTRS	100,233,926.82	524,302.90	0.00	99,709,623.92
	WINTON FUTURE FD	37,250,539.09	425,160.31	0.00	36,825,378.78
	GRAHAM ABS RETURN	55,824,723.64	113,021.96	0.00	55,711,701.68
Alternative Fixed Income		128,815,405.34	1,379,095.94	(9,099,781.70)	136,536,091.10
	BRIGADE LEV CAP	57,664,857.57	1,209,168.04	0.00	56,455,689.53
	CAPULA GLOBAL	64,956,603.19	336,141.99	0.00	64,620,461.20
	CLAREN ROAD CR. FUND	6,193,944.58	(166,214.09)	(9,099,781.70)	15,459,940.37
Credit		421,998,188.76	5,349,551.95	0.00	416,648,636.81
	PIMCO	214,568,240.00	2,789,625.57	0.00	211,778,614.43
	WAMCO	207,429,948.76	2,559,926.38	0.00	204,870,022.38
GILBs		285,422,046.01	886,411.91	0.00	284,535,634.10
	BROWN BROTHERS HARR	285,422,046.01	886,411.91	0.00	284,535,634.10
Publicly Traded Infrastructure		256,653,586.70	1,648,044.68	2,458,907.49	252,546,634.53
	PRIV INFRASTR AGGR	83,980,893.21	186,202.09	2,458,907.49	81,335,783.63
	HARVEST FUND ADVISOR	172,672,693.49	1,461,842.59	0.00	171,210,850.90
Real Estate		509,318,465.43	5,807,771.22	3,838,387.85	499,672,306.36
Real Estate		509,318,465.43	5,807,771.22	3,838,387.85	499,672,306.36
	REAL ESTATE	509,318,465.43	5,807,771.22	3,838,387.85	499,672,306.36

Monthly Valuation Change

Period : 2016-07-01 - 2016-07-31

Category	Source Account Name	Closing Balance	Market Value Increase/(Decrease)	Transfer In/(Out)	Opening Balance
Total Cash		100,582,164.90	(32,708.42)	62,530,773.10	38,084,100.22
Cash Accounts		100,582,164.90	(32,708.42)	62,530,773.10	38,084,100.22
	ERSRI CASH	98,141,787.90	(32,708.42)	61,321,091.10	36,853,405.22
	CITIZENS CASH	2,440,377.00	0.00	1,209,682.00	1,230,695.00
Total Other		18,368,805.38	3,870,799.96	0.00	14,498,005.42
Other		18,368,805.38	3,870,799.96	0.00	14,498,005.42
	RUSSELL OVERLAY FD	18,368,805.38	3,870,799.96	0.00	14,498,005.42
Total Miscellaneous		643,999.86	10,193,421.13	(10,009,302.54)	459,881.27
Miscellaneous Accounts		643,999.86	10,193,421.13	(10,009,302.54)	459,881.27
	RI TRANS ACCT	5,182.62	(21.36)	0.00	5,203.98
	SHOTT CAPITAL	427,141.05	3,446.31	0.00	423,694.74
	DOM EQUITY TRANS	74.25	0.00	0.00	74.25
	NON-US EQUITY TRANS	210,229.68	10,189,956.37	(10,009,302.54)	29,575.85
	FIXED INC TRANS	1,371.88	39.81	0.00	1,332.07
	MACKAY SHIELDS LLC	0.38	0.00	0.00	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	Projected August	Actual July 2016
MEMBER BENEFITS	839,422,131	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	70,000,000	69,422,131
ADMINISTRATIVE EXPENSES	10,576,749	1,402,923.56	718,107	1,403,401	1,327,462	490,334	490,349	1,455,574	415,373	920,437	908,661	670,460	373,667
INVESTMENT EXPENSES	8,432,840	109,133	1,202,775	290,754	1,489,542	391,688	449,787	(6,984)	1,354,605	517,439	680,230	1,476,800	477,072
TOTAL OUTFLOW	858,431,720	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	71,588,891	72,147,260	70,272,870
CONTRIBUTIONS	456,275,701	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	25,205,629	46,948,459
OTHER INCOME*	83,649,084	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	3,189,206	3,358,861
TOTAL INCOME	539,924,785	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	28,394,835	50,307,320
DIFFERENCE	(318,506,934)	(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)	(38,769,801)	(43,752,425)	(19,965,550)

Municipal Employees Retirement System

	TOTAL	Projected June	Projected May	Projected April	Projected March	Actual February	Projected January 2017	Projected December	Projected November	Projected October	Projected September	Projected August	Actual July 2016
MEMBER BENEFITS	92,319,454	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	7,700,000	7,619,454
ADMINISTRATIVE EXPENSES	2,303,144	303,792	155,113	302,293	285,305	105,032	108,534	321,127	91,498	202,078	198,842	145,660	83,870
INVESTMENT EXPENSES	1,836,886	23,632	259,802	62,628	320,139	83,902	99,556	(1,541)	298,392	113,602	148,855	320,840	107,080
TOTAL OUTFLOW	96,459,484	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	8,166,500	7,810,403
CONTRIBUTIONS	58,056,743	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	2,105,073	7,104,291
OTHER INCOME*	18,242,689	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	692,866	753,901
TOTAL INCOME	76,299,432	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	2,797,939	7,858,192
DIFFERENCE	(20,160,053)	(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	(5,368,561)	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	Projected August	Actual July 2016
<i>MEMBER BENEFITS</i>	4,619,724	385,000	385,000	385,000	385,000	385,000	385,000	385,000	385,000	385,000	385,000	385,000	384,724
<i>ADMINISTRATIVE EXPENSES</i>	191,287	25,127	12,771	24,801	23,304	8,553	9,202	26,978	7,672	16,913	16,596	12,153	7,216
<i>INVESTMENT EXPENSES</i>	152,710	1,955	21,391	5,138	26,150	6,833	8,441	(129)	25,019	9,508	12,424	26,769	9,212
<i>TOTAL OUTFLOW</i>	4,963,721	412,082	419,163	414,940	434,454	400,386	402,643	411,848	417,691	411,421	414,020	423,922	401,152
<i>CONTRIBUTIONS</i>	5,801,602	441,275	393,221	415,000	395,000	485,000	445,000	1,220,000	405,000	412,382	410,000	395,000	384,724
<i>OTHER INCOME*</i>	1,517,210	111,301	279,439	59,980	107,736	104,808	72,121	200,081	101,017	232,436	125,622	57,808	64,861
<i>TOTAL INCOME</i>	7,318,812	552,576	672,660	474,980	502,736	589,808	517,121	1,420,081	506,017	644,818	535,622	452,808	449,585
<i>DIFFERENCE</i>	2,355,091	140,495	253,497	60,040	68,282	189,422	114,478	1,008,233	88,325	233,397	121,602	28,887	48,433

**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	Projected August	Actual July 2016
<i>MEMBER BENEFITS</i>	2,757,841	230,000	230,000	230,000	230,000	230,000	230,000	230,000	230,000	230,000	230,000	230,000	227,841
<i>ADMINISTRATIVE EXPENSES</i>	98,990	12,912	6,598	12,804	12,022	4,410	4,768	14,034	3,987	8,786	8,616	6,304	3,748
<i>INVESTMENT EXPENSES</i>	79,092	1,004	11,051	2,653	13,490	3,523	4,373	(67)	13,004	4,939	6,450	13,886	4,786
<i>TOTAL OUTFLOW</i>	2,935,923	243,917	247,649	245,457	255,512	237,934	239,141	243,966	246,991	243,726	245,066	250,190	236,375
<i>CONTRIBUTIONS</i>	3,467,431	291,448	263,142	280,000	270,000	270,000	280,000	430,000	290,000	290,000	280,000	295,000	227,841
<i>OTHER INCOME*</i>	785,746	57,197	144,363	30,965	55,579	54,043	37,366	104,081	52,503	120,750	65,217	29,987	33,694
<i>TOTAL INCOME</i>	4,253,176	348,645	407,505	310,965	325,579	324,043	317,366	534,081	342,503	410,750	345,217	324,987	261,534
<i>DIFFERENCE</i>	1,317,253	104,728	159,856	65,509	70,067	86,110	78,225	290,115	95,512	167,025	100,151	74,797	25,160

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

FISCAL YEAR 2016

DIRECT BILLED INVESTMENT MANAGER FEES, PROFESSIONAL FEES & OPERATING EXPENSES

ERSRI & MERSRI

ACCRUAL BASIS

	Actual Jul 15	Actual Aug	Actual Sept	Actual Oct	Projected Nov	Projected Dec	Actual Jan 16	Actual Feb	Actual Mar	Actual Apr	Projected May	Projected June	Projected TOTAL
EQUITIES US													
SSGA Russell 3000			54,749			49,189			42,700			40,757	187,394
Shott Capital/Hamilton Lane			<u>31,173</u>			65		0				<u>1,700</u>	<u>32,939</u>
SSGA QVM Tilt						<u>34,436</u>		56,546				<u>60,000</u>	<u>150,982</u>
			85,922			83,690		99,246				109,257	227,133
FIXED INCOME													
Pyramis			176,955			174,552		173,195				180,000	704,702
Mackay Shields			186,890			180,623		179,986				195,000	742,498
Brown Bros.TIPS/GILB			<u>83,521</u>			<u>82,952</u>		<u>82,756</u>				<u>85,000</u>	<u>334,229</u>
			447,366			438,126		435,937				460,000	1,781,429
INT'L EQUITIES													
SSGA MSCI EAFE			88,284			78,348		66,386				60,076	293,094
SSGA MSCI CAD			9,040			7,868		7,306				7,814	32,027
SSGA MSCI Emerg Mkts			<u>93,432</u>			<u>84,844</u>		<u>75,041</u>				<u>78,298</u>	<u>331,614</u>
			190,755			171,060		148,733				146,187	656,734
CREDIT													
WAMCO			151,745			148,826		96,753				155,000	552,323
PIMCO			<u>129,412</u>			<u>128,392</u>		<u>128,932</u>				<u>131,203</u>	<u>517,938</u>
			281,157			277,217		225,684				286,203	1,070,262
Infrastructure													
Harvest Partners			206,672			204,856		217,037				200,000	828,565
REAL ESTATE													
Direct Billed Real Estate	468,839	325,859	449,048	480,045	174,409	0	493,165	91,634	0	79,200	104,358	0	2,666,557
ALTERNATIVE INVESTMENTS													
Direct Billed Private Equity	359,830	1,512,554	398,963	165,487	1,516,731	(8,723)	69,034	507,595	1,245,019	673,084	1,231,877	135,737	7,807,189
SUB TOTAL-INV MGMT FEES	828,668	1,838,414	2,059,882	645,532	1,691,140	1,166,227	562,199	599,228	2,371,656	752,284	1,336,235	1,337,384	15,037,868
PROFESSIONAL FEES													
Legal	13,550	0	2,665	12,190	8,418	3,357	0	7,964	18,469	12,347	5,960	9,763	94,682
BNY Mellon - Custodial	28,127	28,151	29,372	29,616	29,112	29,077	40,077	31,952	28,166	34,859	30,000	30,000	368,508
Cliffwater	37,500		37,500	37,500	37,500	37,500	37,500	37,500	37,500	37,500	37,500	37,500	412,500
PCA/Russell	14,583	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>10,417</u>	<u>10,417</u>	<u>10,417</u>	<u>10,417</u>	<u>10,417</u>	<u>10,417</u>	<u>10,417</u>	<u>10,417</u>	<u>10,417</u>	<u>10,417</u>	<u>10,417</u>	<u>10,417</u>	<u>125,004</u>
	104,177	53,150	141,729	104,306	118,780	144,046	102,577	102,416	176,816	109,707	98,460	121,013	1,377,177
OPERATING EXPENSE													
Retirement Transfers	322,692	584,691	701,368	677,969	330,009	1,625,828	512,091	865,046	920,987	823,990	442,116	1,303,711	9,110,499
Other Expense	<u>0</u>	<u>0</u>	<u>0</u>	<u>1,125</u>	<u>0</u>	<u>38,335</u>	<u>1,625</u>	<u>0</u>	<u>49,974</u>	<u>0</u>	<u>0</u>	<u>1,000</u>	<u>92,059</u>
	322,692	584,691	701,368	679,094	330,009	1,664,163	513,716	865,046	970,961	823,990	442,116	1,304,711	9,202,558
TOTAL:	1,255,537	2,476,255	2,902,979	1,428,933	2,139,929	2,974,436	1,178,492	#####	3,519,433	1,685,981	1,876,811	2,763,108	25,617,603

Note: Numbers in bold are actual.

FISCAL YEAR 2017

DIRECT BILLED INVESTMENT MANAGER FEES, PROFESSIONAL FEES & OPERATING EXPENSES

ERSRI & MERSRI

ACCRUAL BASIS

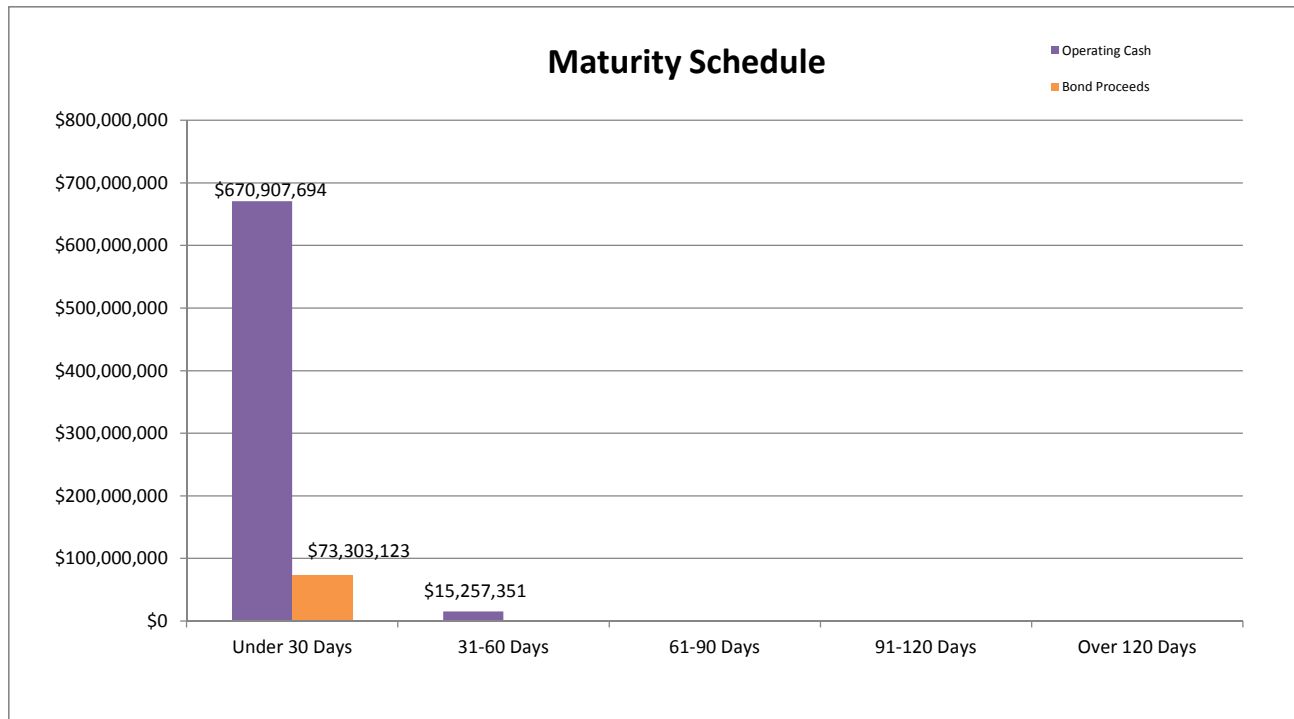
	Projected Jul 16	Projected Aug	Projected Sept	Projected Oct	Projected Nov	Projected Dec	Projected Jan 17	Projected Feb	Projected Mar	Projected Apr	Projected May	Projected June	Projected TOTAL
EQUITIES US													
SSGA Russell 3000			42,000			42,000			42,000			42,000	168,000
Shott Capital/Hamilton 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
FIXED INCOME													
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
INT'L EQUITIES													
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
CREDIT													
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
Infrastructure													
Harvest Partners			220,000			220,000			220,000			220,000	880,000
REAL ESTATE													
Direct Billed Real Estate	331,011	325,859	449,048	480,045	174,409	0	493,165	91,634	0	79,200	104,358	0	2,528,729
ALTERNATIVE INVESTMENTS													
Direct Billed Private Equity	267,199	1,512,554	398,963	165,487	1,516,731	(8,723)	69,034	507,595	1,245,019	673,084	1,231,877	135,737	7,714,558
SUB TOTAL-INV MGMT FEES	598,210	1,838,414	2,037,011	645,532	1,691,140	1,151,277	562,199	599,228	2,405,019	752,284	1,336,235	1,302,537	14,639,087
PROFESSIONAL FEES													
Legal	13,550	0	2,665	12,190	8,418	3,357	0	7,964	18,469	12,347	5,960	9,763	94,682
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	37,500	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	14,583	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>10,417</u>	<u>10,417</u>	<u>10,417</u>	<u>10,417</u>	<u>10,417</u>	<u>10,417</u>	<u>10,417</u>	<u>10,417</u>	<u>10,417</u>	<u>10,417</u>	<u>10,417</u>	<u>10,417</u>	<u>125,004</u>
	109,050	95,500	145,357	107,690	122,668	147,969	95,500	103,464	181,650	107,848	101,460	124,013	1,442,168
OPERATING EXPENSE													
Retirement Transfers	359,498	584,691	701,368	677,969	330,009	1,625,828	512,091	865,046	920,987	823,990	442,116	1,303,711	9,147,305
Other Expense	<u>0</u>	<u>0</u>	<u>0</u>	<u>1,125</u>	<u>0</u>	<u>38,335</u>	<u>1,625</u>	<u>0</u>	<u>49,974</u>	<u>0</u>	<u>0</u>	<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
TOTAL:	1,066,758	2,518,605	2,883,736	1,432,316	2,143,817	2,963,409	1,171,416	#####	3,557,630	1,684,122	1,879,811	2,731,261	25,320,620

Note: Numbers in bold are actual.

Section VIII.

Short-Term Investments

Short-Term Investment Maturity Schedule & SIC Compliance Report at July 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	311,109,831	311,109,831
	0%	0%	0%	0%	0%	0%	0%	45%	45%
Bank RI	0	15,257,351	0	15,083,771	0	0	0	0	30,341,121
	0%	2%	0%	2%	0%	0%	0%	0%	4%
Santander Bank	0	0	0	0	130,044,794	0	0	0	130,044,794
	0%	0%	0%	0%	19%	0%	0%	0%	19%
Citizens Bank	0	0	0	0	52,593,681	0	0	0	52,593,681
	0%	0%	0%	0%	8%	0%	0%	0%	8%
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	83,924,103	0	0	0	83,924,103
	0%	0%	0%	0%	12%	0%	0%	0%	12%
Washington Trust	0	0	0	60,705,755	0	0	0	0	60,705,755
	0%	0%	0%	9%	0%	0%	0%	0%	9%
TD Bank	0	0	0	0	12,572,184	0	0	0	12,572,184
	0%	0%	0%	0%	2%	0%	0%	0%	2%
TOTALS	-	15,257,351	-	75,789,526	284,008,339	-	-	311,109,831	686,165,046
(%) PORTFOLIO	0.00%	2.22%	0.00%	11.05%	41.39%	0.00%	0.00%	45.34%	100.00%

Note: PIP + CD must be under 75%.

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

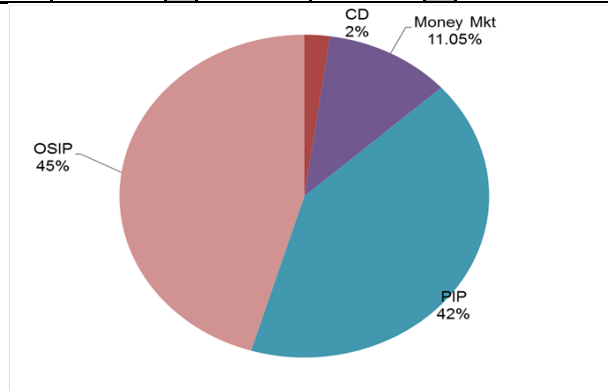
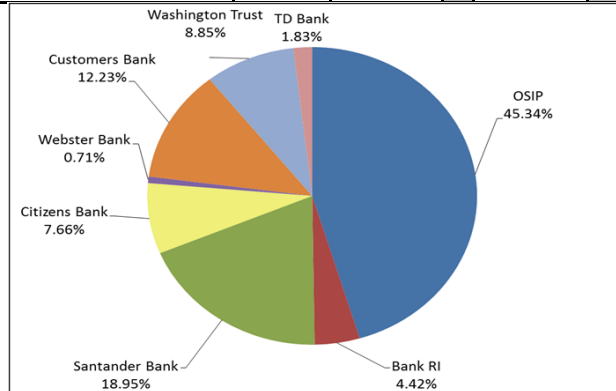
State of Rhode Island
Short Term Cash Monthly Performance
Performance for
July 01, 2016 to July 31, 2016

Fund Name	Beginning Balance		Ending Balance		Average Daily Balance		Earnings	Yield(Annual)	
GENERAL FUND	\$	579,414,025.44	\$	415,582,112.29	\$	486,557,920.93	\$	202,010.85	0.4888%
H.A.V.A	\$	296.83	\$	296.96	\$	296.83	\$	0.13	0.5157%
GENERAL FUND (HIST PRES)	\$	540,211.42	\$	540,441.44	\$	540,211.42	\$	230.02	0.5013%
HISTORIC TAX CREDITS	\$	2,917,366.45	\$	2,918,607.50	\$	2,917,366.45	\$	1,241.05	0.5009%
HIGHWAY FUND	\$	52,654,449.22	\$	48,775,465.15	\$	49,480,255.67	\$	21,015.93	0.5001%
T.D.I. RESERVE (DET)	\$	100,850,393.51	\$	92,579,532.95	\$	95,866,522.54	\$	29,139.44	0.3579%
EMPLOYER PENSION CONTRIBUTION	\$	-	\$	-	\$	-	\$	-	-
RICAP GL FUND 21	\$	60,776,528.55	\$	43,894,889.26	\$	53,595,883.39	\$	18,360.71	0.4034%
BOND CAPITAL FUND	\$	961,825.28	\$	61,935.31	\$	265,051.09	\$	110.03	0.4888%
R.I. CLEAN WATER ACT	\$	3,197,208.31	\$	3,198,567.65	\$	3,197,208.31	\$	1,359.34	0.5006%
STATE LOTTERY FUND	\$	19,817,936.79	\$	49,133,473.77	\$	36,598,581.95	\$	15,536.98	0.4998%
ASSESSED FRINGE BEN ADM	\$	1,813,975.73	\$	1,614,725.51	\$	1,768,814.44	\$	749.78	0.4991%
AUTO EQUIPMENT SERVICE	\$	1,251.90	\$	1,252.43	\$	1,251.90	\$	0.53	0.4985%
HEALTH INSURANCE FUND	\$	19,121,138.53	\$	17,629,348.56	\$	19,327,590.14	\$	8,210.03	0.5001%
FLEET REVOLVING LOAN FUND	\$	3,761,713.01	\$	3,762,955.84	\$	3,761,713.01	\$	1,242.83	0.3890%
EMPLOYEES RETIREMENT	\$	30,282.20	\$	1,239,465.37	\$	21,685,120.91	\$	9,183.17	0.4986%
MUNICIPAL EMPLOYEES RET.	\$	83,790.99	\$	384,839.85	\$	2,480,565.18	\$	1,048.86	0.4978%
RETIREE HEALTH FUND	\$	640,576.24	\$	240,734.50	\$	382,511.72	\$	158.26	0.4871%
BOG RETIREE FUND	\$	62,785.19	\$	62,811.93	\$	62,785.19	\$	26.74	0.5015%
RIPTA HEALTH FUND	\$	35,889.95	\$	35,905.23	\$	35,889.95	\$	15.28	0.5013%
PERMANENT SCHOOL FUND	\$	1,943,997.14	\$	1,944,824.89	\$	1,943,997.14	\$	827.75	0.5013%
TEACHER RETIREE HEALTH FUND	\$	578,944.91	\$	579,190.41	\$	578,944.91	\$	245.50	0.4993%
RI ST POL RETIREE HEALTH	\$	123,741.59	\$	123,794.00	\$	123,741.59	\$	52.41	0.4987%
RI LEG RETIREE HEALTH	\$	100,679.80	\$	90,719.71	\$	94,228.19	\$	39.91	0.4987%
RI JUDICIAL RETIREE HEALTH	\$	40,418.76	\$	40,435.88	\$	40,418.76	\$	17.12	0.4987%
UNIVERSITY COLLEGE	\$	12,204.69	\$	12,209.88	\$	12,204.69	\$	5.19	0.5007%
HIGHER EDUCATION	\$	-	\$	-	\$	-	\$	-	-
INDUS. BLDG. & MTG. INS.	\$	1,715,777.73	\$	1,716,508.31	\$	1,715,777.73	\$	730.58	0.5013%
Operating Funds Totals	\$	851,197,410.16	\$	686,165,044.58	\$	783,034,854.03	\$	311,558.42	0.468%
CCDL 2004 SERIES A	\$	35,179.28	\$	35,019.20	\$	35,004.30	\$	14.90	0.5012%
BOND CCDL 2005 SERIES C	\$	-	\$	-	\$	-	\$	-	-
BOND CCDL 2005 SERIES E	\$	-	\$	-	\$	-	\$	-	-
BOND CCDL 2006 SERIES B	\$	-	\$	-	\$	-	\$	-	-
BOND CCDL 2006 SERIES C	\$	874,144.38	\$	874,186.11	\$	873,814.04	\$	372.07	0.5013%
GO BND-NTAX 2007 SERIES A	\$	389,871.62	\$	389,753.44	\$	389,587.55	\$	165.89	0.5014%
GO BND-TAX 2007 SERIES B	\$	-	\$	-	\$	-	\$	-	-
GO BND-NTAX 2008 SERIES B	\$	-	\$	-	\$	-	\$	-	-
GO BND-TAX 2008 SERIES C	\$	-	\$	-	\$	-	\$	-	-
CCDL10B BOND CAPITAL COMPONENT	\$	950,359.14	\$	950,404.51	\$	950,000.00	\$	404.51	0.5013%
CCDL10C	\$	159,890.66	\$	159,958.74	\$	159,890.66	\$	68.08	0.5013%
CCDL10D	\$	-	\$	-	\$	-	\$	-	-
CCDL2011A	\$	6,617,852.96	\$	6,617,944.57	\$	6,615,127.86	\$	2,816.71	0.5013%
CCDL2012B	\$	6,294,908.90	\$	6,295,209.40	\$	6,292,530.05	\$	2,679.35	0.5013%
GO CCDL 2013A	\$	5,219,033.25	\$	5,219,224.77	\$	-	\$	2,221.39	0.5013%
GO CCDL 2013B	\$	6,252,362.77	\$	6,252,661.24	\$	-	\$	2,661.24	0.5013%
GO CCDL 2014A	\$	3,361,683.02	\$	3,360,941.05	\$	-	\$	1,430.47	0.5013%
GO CCDL 2014B	\$	41,823.13	\$	40,681.58	\$	-	\$	17.31	0.5012%
GO CCDL 2016A	\$	34,476,480.47	\$	34,474,393.43	\$	-	\$	14,680.02	0.5016%
GO CCDL 2016B	\$	6,731,384.85	\$	6,730,642.78	\$	-	\$	2,866.21	0.5016%
CLEAN WATER 2004 SERIES A	\$	175,537.55	\$	175,545.93	\$	175,471.21	\$	74.72	0.5014%
CCDL99A 1999A	\$	206,647.48	\$	206,657.35	\$	206,569.39	\$	87.96	0.5014%
POL. CTRL CCDL 2006 SER C	\$	-	\$	-	\$	-	\$	-	-
CLEAN WATER 2007 SERIES A	\$	283,359.14	\$	283,372.67	\$	283,252.06	\$	120.61	0.5014%
RI POLLUTION CONTROL 2008 B	\$	-	\$	-	\$	-	\$	-	-
CCDL10B CLEAN WATER COMPONENT	\$	-	\$	-	\$	-	\$	-	-
CCDL2011A CLEAN WATER COMPONENT	\$	1,236,467.26	\$	1,236,526.29	\$	1,236,000.00	\$	526.29	0.5013%
CCDL2011A POLL CTRL CMPNT	\$	-	\$	-	\$	-	\$	-	-
Bond Proceeds Fund Totals	\$	73,306,985.86	\$	73,303,123.06	\$	17,217,247.12	\$	31,207.73	0.501%
TANS PROCEEDS	\$	-	\$	-	\$	-	\$	-	-
Grand Totals	\$	924,504,396.02	\$	759,468,167.64	\$	800,252,101.15	\$	342,766.15	0.471%

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

**Issuer Credit Rating
July 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	
Bank RI	3,4	4.4%	N/R		N/A	N/A	N/A	N/A	N/A
Santander Bank	3,4	19.0%	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	7.7%	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	45.3%	N/R		N/A	N/A	N/A	N/A	N/A
Washington Trust	3,7	8.9%	N/R		N/A	N/A	N/A	N/A	N/A
TD Bank	3	1.8%	Aa1		P-1	A-1+	Aa1	AA-	Negative
Customers Bank	4	12.2%	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 IX.

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)
As of 7/31/16	TIAA Stable Value****	Mgr.	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	
			crediting rate = 1.80						0.16	1.10	1.85		1.88						1.87	03/31/12					
FIXED INCOME																									
Intermediate-Term Bond																									
Vanguard Total Bond Market Index Adm	VBTLX	3.42	168,405.83	0.06	0.06	2	0.00	0.65	6.21	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	
Barclays U.S. Aggregate Float Adjusted Index								0.67	6.23	6.00		4.06		3.76		5.13				1.49		2.66			
Intermediate-Term Bond Median				0.86	0.75			0.83	5.94	4.82		3.69		3.72		4.99				1.36		2.66		0.90	
Intermediate-Term Bond Number of Funds				1,119	1,119						1089		1042		1004		871				1044		1044		
Inflation-Linked Bond																									
PIMCO Real Return Instl	PRRIX	8.58	11,085.47	0.50	0.45	22	0.00	0.89	7.02	3.31	38	1.86	23	2.36	10	4.89	2		01/29/97	0.37	45	5.08	93	1.38	
Barclays US Treasury US TIPS TR USD								0.87	7.16	4.35		2.31		2.63		4.75				0.54		4.27			
Inflation-Protected Bond Median				0.85	0.73			0.72	6.42	2.87		1.42		1.75		4.03				0.35		4.21		0.78	
Inflation-Protected Bond Number of Funds				262	262						259		243		211		152				243		243		
Equity																									
Large Cap Blend																									
Vanguard Institutional Index I	VINIX	15.58	203,600.27	0.04	0.04	1	0.00	3.69	7.64	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	
S&P 500 TR USD								3.69	7.66	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	3.90	8.25	2.12	34	9.39	58	10.47	51	7.00	31		07/01/99	0.83	58	11.53	54	0.94	
Russell 3000 TR USD								3.97	7.74	2.14		11.13		11.60		7.40				0.97		11.47			
Large Blend Median				1.10	1.00			3.71	6.13	0.28		9.85		10.54		6.59				0.87		11.48		2.45	
Large Blend Number of Funds				1,636	1,636						1,571		1,501		1,380		1,198				1,503		1,503		
Mid Cap Blend																									
Vanguard Mid Cap Index Adm	VIMAX	18.17	68,967.48	0.08	0.08	3	0.00	4.64	8.33	(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	
Spliced Mid Cap Index *								4.64	8.33	(0.87)		10.82		10.61		7.84									
CRSP US Mid Cap TR USD								4.64	8.33	(0.87)		10.82		10.77		7.87				0.91		12.03			
Mid-Cap Blend Median				1.25	1.17			4.27	7.78	(3.04)		8.33		8.62		6.71				0.70		12.44		3.76	
Mid-Cap Blend Number of Funds				457	457						430		402		365		320				403		403		
Small Cap Blend																									
Vanguard Small Cap Index Adm	VSMAX	0.25	58,319.76	0.08	0.08	1	0.00	5.07	10.34	(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	
Spliced Small Cap Index **								5.07	10.34	(2.91)		8.93		9.87		7.68									
CRSP US Small Cap TR USD								5.07	10.34	(2.91)		8.93		10.04		8.20				0.69		13.64			
Small Blend Median				1.36	1.22			5.00	7.99	(6.39)		7.06		8.21		5.79				0.54		14.40		3.60	
Small Blend Number of Funds				870	870						824		746		684		579				753		753		
Foreign Large Blend																									
TIAA-CREF International Eq Idx Instl	TCIEX	10.92	6,849.33	0.06	0.06	1	0.00	4.24	0.89	(9.59)	40	2.37	35	1.92	26	1.78	36		10/01/02	0.24	36	12.94	66	1.98	
MSCI EAFE NR USD								5.07	0.42	(10.16)		2.06		1.68		1.58				0.21		13.29			
Foreign Large Blend Median				1.32	1.15			4.21	0.63	(10.25)		1.87		1.19		1.35				0.20		12.70		3.43	
Foreign Large Blend Number of Funds				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 7/31/16	Ticker	Mgr. 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		3 Year
Diversified Emerging Markets																									
Vanguard Emerging Mkts Stock Idx Adm		VEMAX	7.92	54,366.83	0.15	0.15	1	0.00	4.65	12.82	(12.11)	71	(0.75)	38	(3.53)	54	3.54	42	4.19	06/23/06	0.03	35	16.77	86	
Spliced Emerging Markets Index ***									4.89	12.15	(12.85)		(1.02)		(3.47)		3.64								
FTSE Emerging NR USD									4.98	13.24	(12.18)		(0.77)		(3.21)		4.06				0.03		16.87		
MSCI EM NR USD									5.03	11.77	(12.06)		(1.56)		(3.78)		3.54				(0.02)		16.51		
Diversified Emerging Mkts Median					1.81	1.50			4.31	10.25	(10.11)		(1.32)		(3.24)		3.22				(0.01)		15.16		4.99
Diversified Emerging Mkts Number of Funds					939	939						887		652		506		274				667		667	
Miscellaneous Sector																									
TIAA Real Estate Account		VA	0.92	23,672.32	0.89	0.89		0.24	0.40	3.60	6.96		9.55		9.67		3.74			10/02/95	6.91		1.30		
Lifecycle																									
Vanguard Target Retirement Income Trust II					0.08	0.08		0.00	1.58	5.99	3.37		5.00		5.05				4.90	02/29/08					
Vanguard Target Retirement Income Compos. Lx									1.67	5.99	3.42		5.13		5.13										
Retirement Income Median					1.11	0.84			1.71	5.57	1.86		3.78		3.90		4.22				0.89		4.69		1.86
Retirement Income Number of Funds					200	200						193		167		155		87				171		171	
Vanguard Target Retirement 2010 Trust II					0.08	0.08		0.00	1.68	5.97	2.99		5.58		5.59				5.06	02/29/08					
Vanguard Target Retirement 2010 Compos. Lx									1.76	6.00	3.09		5.73		5.67										
Target Date 2000-2010 Median					0.91	0.80			1.97	5.74	1.27		4.75		4.81		4.09				0.87		5.50		1.20
Target Date 2000-2010 Number of Funds					127	127						123		106		100		51				106		106	
Vanguard Target Retirement 2015 Trust II					0.08	0.08		0.00	2.25	6.28	2.08		6.29		6.23				5.37	02/29/08					
Vanguard Target Retirement 2015 Compos. Lx									2.34	6.28	2.13		6.42		6.32										
Target Date 2011-2015 Median					1.06	0.81			2.19	5.93	1.30		4.78		4.94		5.03				0.85		6.17		1.33
Target Date 2011-2015 Number of Funds					173	173						161		134		116		23				134		134	
Vanguard Target Retirement 2020 Trust II					0.08	0.08		0.00	2.68	6.61	1.56		6.86		6.74				5.52	02/29/08					
Vanguard Target Retirement 2020 Compos. Lx									2.81	6.61	1.58		6.98		6.92										
Target Date 2016-2020 Median					1.08	0.87			2.46	6.03	0.96		5.18		5.25		4.39				0.82		6.59		1.50
Target Date 2016-2020 Number of Funds					267	267						248		210		187		88				214		214	
Vanguard Target Retirement 2025 Trust II					0.08	0.08		0.00	3.00	6.67	0.92		7.13		7.01				5.55	02/29/08					
Vanguard Target Retirement 2025 Composite Lx									3.13	6.67	0.91		7.24		7.20										
Target Date 2021-2025 Median					1.10	0.88			2.82	6.05	(0.13)		5.73		5.65		4.73				0.77		7.90		1.62
Target Date 2021-2025 Number of Funds					228	228						216		184		156		34				184		184	
Vanguard Target Retirement 2030 Trust II					0.08	0.08		0.00	3.24	6.60	0.19		7.36		7.26				5.54	02/29/08					
Vanguard Target Retirement 2030 Composite Lx									3.42	6.65	0.19		7.47		7.46										
Target Date 2026-2030 Median					1.13	0.93			3.08	6.13	(0.46)		6.02		6.01		4.42				0.72		8.67		1.68
Target Date 2026-2030 Number of Funds					267	267						248		187		187		88				214		214	
Vanguard Target Retirement 2035 Trust II					0.08	0.08		0.00	3.48	6.58	(0.49)	7	7.58		7.51				5.66	02/29/08					
Vanguard Target Retirement 2035 Composite Lx									3.70	6.62	(0.55)		7.70		7.70										
Target Date 2031-2035 Median					1.14	0.91			3.38	5.93	(1.63)		6.29		6.27		4.70				0.68		9.72		1.59
Target Date 2031-2035 Number of Funds					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 7/31/16	TICKER	Mgr.	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	3 Year
				0.08	0.08		0.00	3.74	6.52	(1.33)		7.62		7.64				5.78	02/29/08					
								3.98	6.58	(1.29)		7.78		7.86										
								3.61	5.87	(2.03)		6.45		6.41		4.54				0.66		10.14		1.68
				1.20	0.96			3.61	5.87	(2.03)		6.45		6.41		4.54				0.66		10.14		1.68
				267	267						248		210		187		88				214		214	
				0.08	0.08		0.00	3.82	6.53	(1.40)		7.60		7.63				5.74	02/29/08					
								4.05	6.60	(1.35)		7.76		7.85										
				1.21	0.94			3.76	5.81	(2.42)		6.61		6.56		4.59				0.65		10.48		1.65
				228	228						216		184		149		28				184		184	
				0.08	0.08		0.00	3.80	6.54	(1.47)		7.57		7.61				5.76	02/29/08					
								4.05	6.60	(1.35)		7.76		7.85										
				1.31	0.98			3.80	5.85	(2.43)		6.64		6.57		4.53				0.66		10.56		1.56
				257	257						238		200		173		23				204		204	
				0.08	0.08		0.00	3.81	6.57	(1.48)		7.54						10.72	08/31/10					
								4.05	6.60	(1.35)		7.76												
				1.39	0.95			3.80	5.82	(2.62)		6.77												
				225	225						211		141											
				0.08	0.08		0.00	3.81	6.59	(1.46)		7.55						8.39	03/01/12					
								4.05	6.60	(1.35)		7.76												
				1.95	0.89			3.84	5.68	(2.34)		6.66								0.62		10.71		1.48
				148	148						80		8								152		152	

Source: Morningstar & TIAA-CREF

Morningstar Analyst Assigned Benchmark*

Data for 1-month and YTD return as of 7/31/2016. 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

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, 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 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 XI.

OPEB Trust

TOTAL NET OF FEES
7/31/2016

Account Name Benchmark Name	Market Value	% of Total	Month	YTD	Fiscal YTD	1 Year	Annualized				Inception Date
							3 Years	5 Years	10 Years	ITD	
Mackay Shields OPEB	64,154,815.5	34.6	0.62	5.63	0.62	5.45	4.17			2.78	5/1/2013
Barclays U.S. Aggregate Bond Index			0.63	5.98	0.63	5.93	4.23			2.88	5/1/2013
SSGA S&P 500 INDX	121,190,858.4	65.4	3.68	7.68	3.68	5.68	11.16	13.35		12.53	5/1/2011
S&P 500 - Total Return Index			3.69	7.66	3.69	5.61	11.16	13.38		11.66	5/1/2011
Total OPEB	185,345,673.9	100.0	2.58	7.11	2.58	5.80	8.79	9.13		8.94	5/1/2011
OPEB Custom Blend ¹			2.62	7.18	2.62	5.97	8.84	8.94		7.98	5/1/2011

END NOTES

7/31/2016

1	RI7GX0903OPE	OPEB Custom Blend	35% Barclays Aggregate and 65% S&P 500
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TOTAL NET OF FEES

7/31/2016

Account Name Benchmark Name	Market Value	% of Total	YTD	Month	Cumulative		2015	2014	2013	Inception Date
					6/1/2016 - 6/30/2016	5/1/2016 - 5/31/2016				
Mackay Shields OPEB	64,154,815.5	34.6	5.63	0.62	1.86	-0.03	0.46	6.03		5/1/2013
Barclays U.S. Aggregate Bond Index			5.98	0.63	1.80	0.03	0.55	5.97		5/1/2013
SSGA S&P 500 INDX	121,190,858.4	65.4	7.68	3.68	0.25	1.79	1.46	13.63	32.09	5/1/2011
S&P 500 - Total Return Index			7.66	3.69	0.26	1.80	1.38	13.69	32.39	5/1/2011
Total OPEB	185,345,673.9	100.0	7.11	2.58	0.81	1.16	1.16	11.00	15.77	5/1/2011
OPEB Custom Blend			7.18	2.62	0.80	1.18	1.31	11.00	15.73	5/1/2011

END NOTES

7/31/2016

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