



# State Board of Administration of Florida

## Major Mandate Review Third Quarter 2017

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## Executive Summary

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- The major mandates each produced generally strong returns relative to their respective benchmarks over both short- and long-term time periods ending September 30, 2017.
- The Pension Plan outperformed its Performance Benchmark during the third quarter and over the trailing one-, three-, five-, ten-, and fifteen-year periods.
  - Over the long-term, Global Equity is the leading source of value added, followed by Strategic Investments, Real Estate and Fixed Income.
  - Over the trailing one-, three-, five-, and ten-year periods, the Pension Plan's return ranked in the top quartile of the TUCS Top Ten Defined Benefit Plan universe.
- The FRS Investment Plan has outperformed the Total Plan Aggregate Benchmark over the trailing one-, three-, five-, and ten-year periods.
- The Lawton Chiles Endowment Fund outperformed its benchmark during the third quarter and over the trailing one-, three-, five-, and ten-year periods.
- The CAT Funds' performance is strong over both short-term and long-term periods, outperforming the benchmark over the trailing one-, three-, five-, and ten-year time periods.
- Florida PRIME has continued to outperform its benchmark over both short and long time periods.

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## Pension Plan: Executive Summary

- The Pension Plan assets totaled \$157.6 billion as of September 30, 2017 which represents a \$4.0 billion increase since last quarter.
- The Pension Plan, when measured against the Performance Benchmark, outperformed its return during the third quarter and over the trailing one-, three-, five-, ten-, and fifteen-year periods.
- Relative to the Absolute Nominal Target Rate of Return, the Pension Plan underperformed over the trailing ten-year period, and outperformed over the trailing one-, three-, five-, fifteen-, twenty-five-, and thirty-year time periods.
- The Pension Plan is well-diversified across six broad asset classes, and each asset class is also well-diversified.
  - Public market asset class investments do not significantly deviate from their broad market-based benchmarks, e.g., sectors, market capitalizations, global regions, credit quality, duration, and security types.
  - Private market asset classes are well-diversified by vintage year, geography, property type, sectors, investment vehicle/asset type, and investment strategy.
  - Asset allocation is monitored on a daily basis to ensure that the actual asset allocation of the Pension Plan remains close to the long-term policy targets set forth in the Investment Policy Statement.
- Aon Hewitt Investment Consulting and SBA staff revisit the plan design annually through informal and formal asset allocation and asset liability reviews.
- Adequate liquidity exists within the asset allocation to pay the monthly obligations of the Pension Plan consistently and on a timely basis.

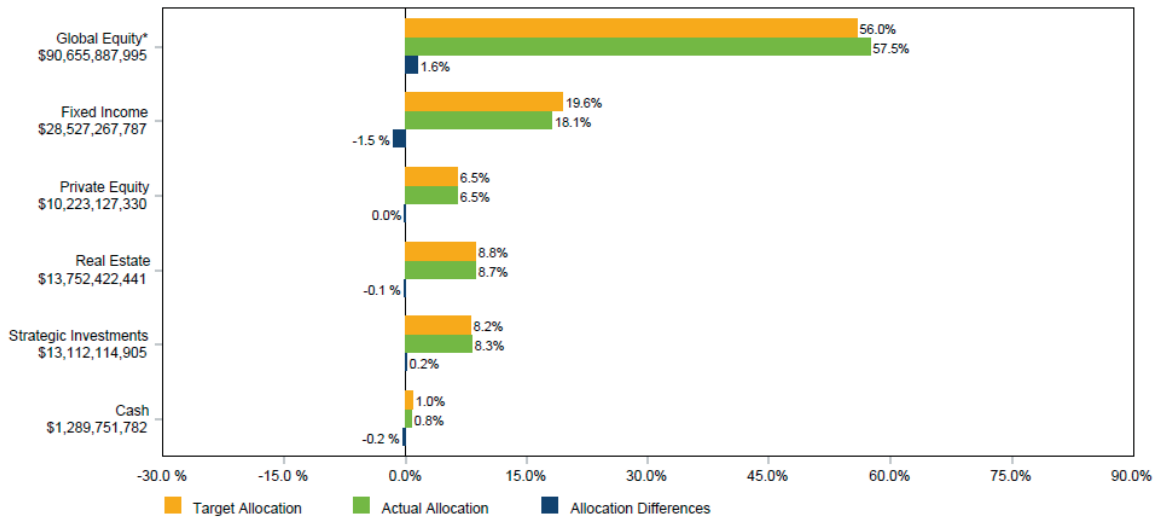
## FRS Pension Plan Change in Market Value Periods Ending 9/30/2017

Summary of Cash Flows		
	Third Quarter	Fiscal YTD*
<b>Beginning Market Value</b>	\$153,573,300,932	\$153,573,300,932
<b>+/- Net Contributions/(Withdrawals)</b>	\$(1,889,325,543)	\$(1,889,325,543)
<b>Investment Earnings</b>	\$5,876,596,851	\$5,876,596,851
<b>= Ending Market Value</b>	\$157,560,572,240	\$157,560,572,240
<b>Net Change</b>	\$3,987,271,308	\$3,987,271,308

\*Period July 2017 – September 2017

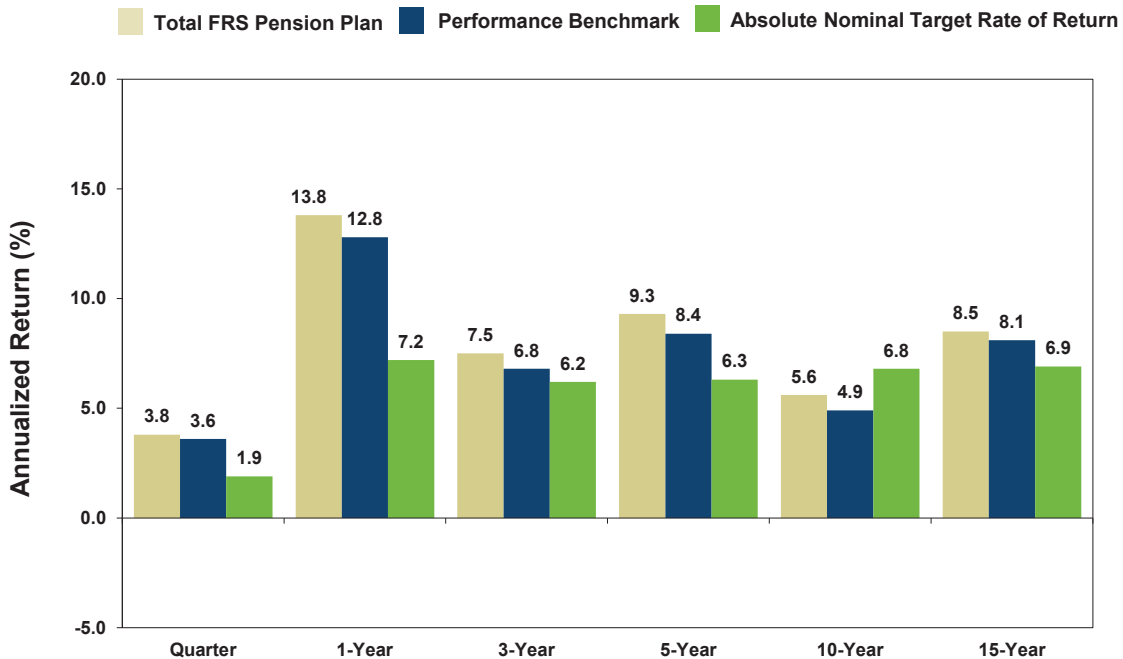
## Asset Allocation as of 9/30/2017 Total Fund Assets = \$157.6 Billion

	Market Value (\$)	Current Allocation (%)	Target Allocation (%)	Minimum Allocation (%)	Maximum Allocation (%)
Total Fund	157,560,572,240	100.0	100.0		
Global Equity*	90,655,887,995	57.5	56.0	45.0	70.0
Fixed Income	28,527,267,787	18.1	19.6	10.0	26.0
Private Equity	10,223,127,330	6.5	6.5	2.0	9.0
Real Estate	13,752,422,441	8.7	8.8	4.0	16.0
Strategic Investments	13,112,114,905	8.3	8.2	0.0	16.0
Cash	1,289,751,782	0.8	1.0	0.3	5.0



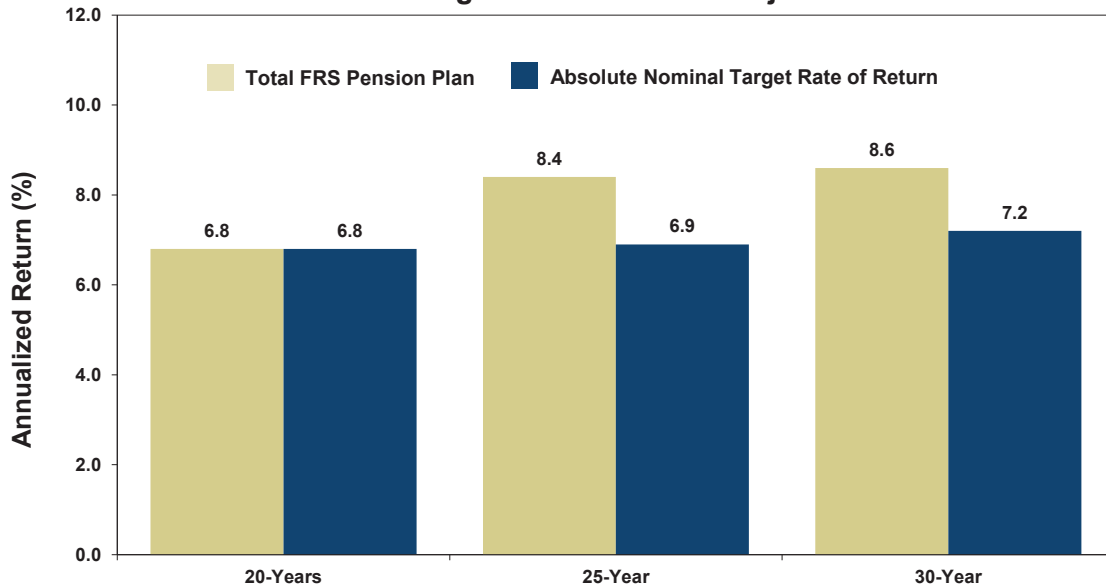
\* Global Equity became an asset class in July 2010. The historical return series prior to July 2010 was derived from the underlying Domestic Equities, Foreign Equities, and Global Equities components.

## FRS Pension Plan Investment Results Periods Ending 9/30/2017



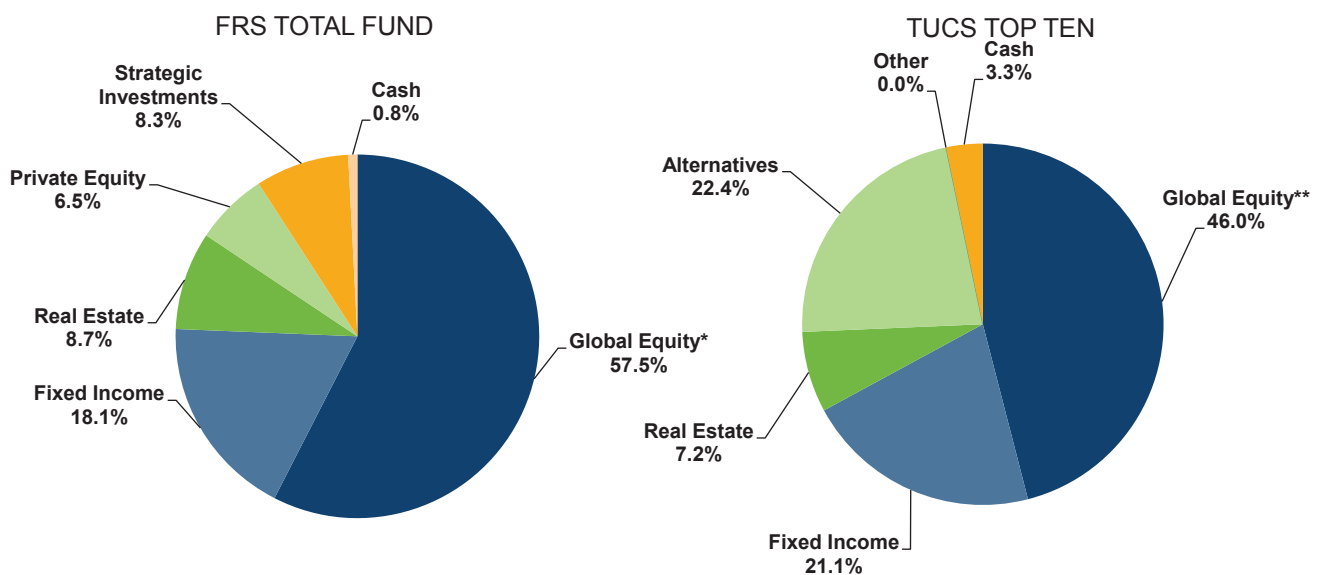
# FRS Pension Plan Investment Results Periods Ending 9/30/2017

## Long-Term FRS Pension Plan Performance Results vs. SBA's Long-Term Investment Objective



## Comparison of Asset Allocation (TUCS Top Ten) As of 9/30/2017

### FRS Pension Plan vs. Top Ten Defined Benefit Plans



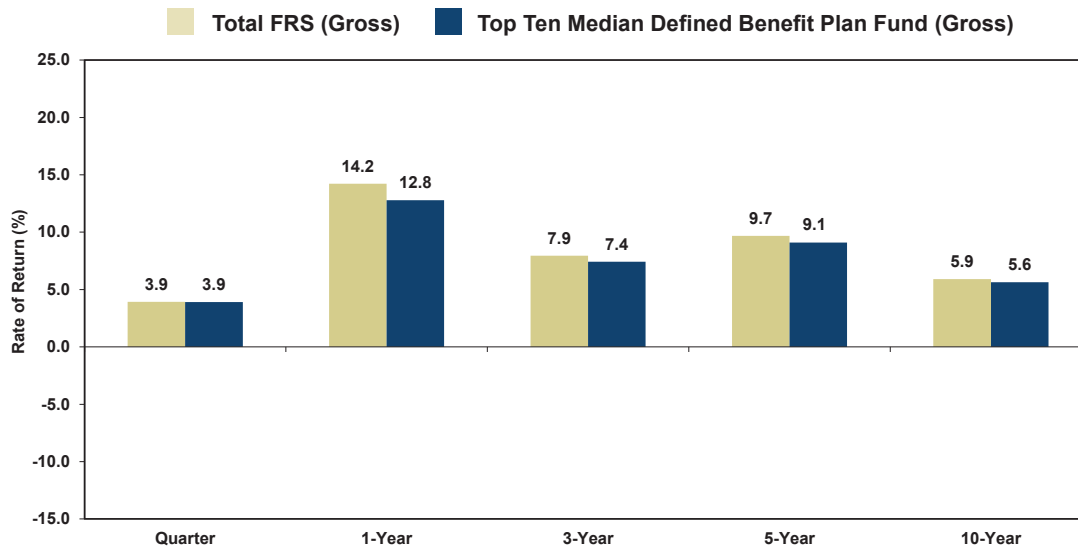
\*Global Equity Allocation: 26.4% Domestic Equities; 25.2% Foreign Equities; 5.6% Global Equities; 0.4% Global Equity Liquidity Account. Percentages are of the Total FRS Fund.

\*\*Global Equity Allocation: 28.4% Domestic Equities; 17.5% Foreign Equities.

Note: The TUCS Top Ten Universe includes \$1,474.0 billion in total assets. The median fund size was \$146.3 billion and the average fund size was \$147.4 billion.

Note: Due to rounding, percentage totals displayed may not sum perfectly.

## FRS Results Relative to TUCS Top Ten Defined Benefit Plans Periods Ending 9/30/2017



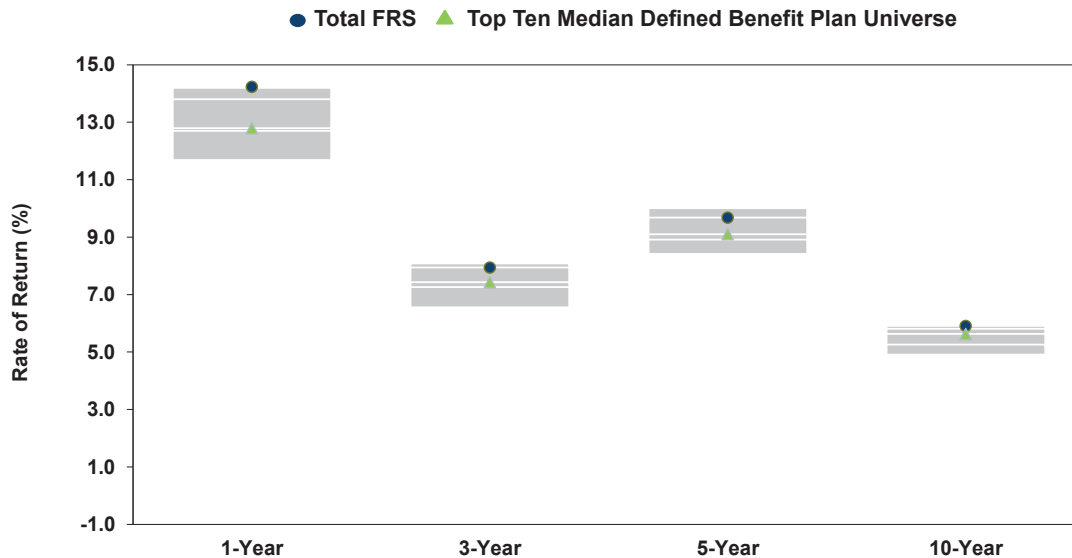
Note: The TUCS Top Ten Universe includes \$1,474.0 billion in total assets. The median fund size was \$146.3 billion and the average fund size was \$147.4 billion.

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## Top Ten Defined Benefit Plans FRS Universe Comparison (TUCS) Periods Ending 9/30/2017



FRS Percentile Ranking

1                      25                      25                      5

Note: The TUCS Top Ten Universe includes \$1,474.0 billion in total assets. The median fund size was \$146.3 billion and the average fund size was \$147.4 billion.

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## Investment Plan: Executive Summary

- The FRS Investment Plan outperformed the Total Plan Aggregate Benchmark over the trailing one-, three-, five-, and ten-year periods. This suggests strong relative performance of the underlying fund options in which participants are investing.
- The FRS Investment Plan's total expense ratio is slightly higher, on average, when compared to a defined contribution peer group and is lower than the average corporate and public defined benefit plan, based on year-end 2016 data. The total FRS Investment Plan expense ratio includes investment management fees, as well as administration, communication and education costs. Communication and education costs are not charged to FRS Investment Plan members; however, these and similar costs may be charged to members of plans within the peer group.
- Management fees are lower than the median as represented by Morningstar's mutual fund universe for every investment category.
- The FRS Investment Plan offers an appropriate number of fund options that span the risk and return spectrum.
- The Investment Policy Statement is revisited periodically to ensure that the structure and guidelines of the FRS Investment Plan are appropriate, taking into consideration the FRS Investment Plan's goals and objectives.

## Total Investment Plan Returns & Cost

### Periods Ending 9/30/2017\*

	One-Year	Three-Year	Five-Year	Ten-Year
<b>FRS Investment Plan</b>	<b>13.3%</b>	<b>6.9%</b>	<b>8.0%</b>	<b>4.8%</b>
<i>Total Plan Aggregate Benchmark**</i>	12.6%	6.6%	7.6%	4.4%
FRS Investment Plan vs. Total Plan Aggregate Benchmark	0.7	0.3	0.4	0.4

### Periods Ending 12/31/2016\*\*\*

	Five-Year Average Return****	Five-Year Net Value Added	Expense Ratio
<b>FRS Investment Plan</b>	<b>7.2%</b>	<b>0.1%</b>	<b>0.33%*****</b>
<i>Peer Group</i>	8.2	0.2	0.26
FRS Investment Plan vs. Peer Group	-1.0	-0.1	0.07

\*Returns shown are net of fees.

\*\*Aggregate benchmark returns are an average of the individual portfolio benchmark returns at their actual weights.

\*\*\*Source: 2016 CEM Benchmarking Report. Peer group for the Five-Year Average Return and Value Added represents the U.S. Median plan return based on the CEM 2016 Survey that included 145 U.S. defined contribution plans with assets ranging from \$72 million to \$49.6 billion. Peer group for the Expense Ratio represents a custom peer group for FSBA of 17 DC plans including corporate and public plans with assets between \$2.3 - \$15.5 billion.

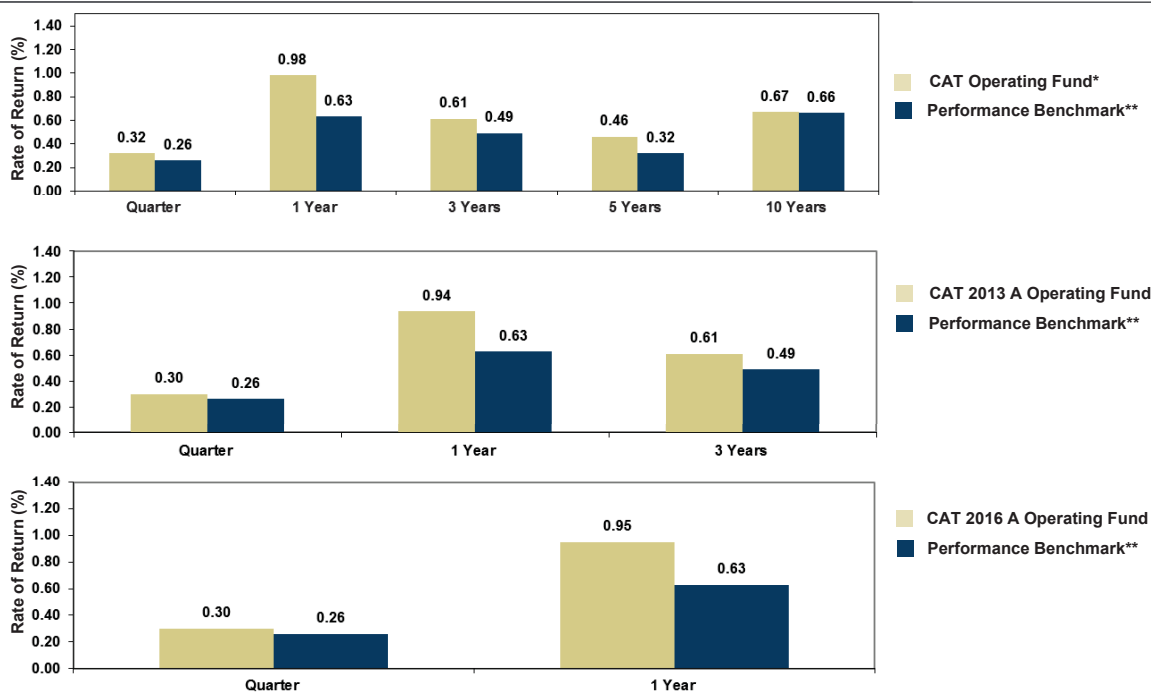
\*\*\*\*Returns shown are gross of fees.

\*\*\*\*\*The total FRS Investment Plan expense ratio includes investment management fees, as well as administration, communication and education costs. These latter costs are not charged to FRS Investment Plan members; however, these and similar costs may be charged to members of plans within the peer group utilized above.

## CAT Fund: Executive Summary

- Returns on an absolute basis continue to be modest given the current low interest rate environment.
- Performance on a relative basis has been favorable over both short- and long-term periods, as the CAT Funds outperformed during the quarter and over the trailing one-, three-, five-, and ten-year time periods.
- The CAT Funds are adequately diversified across issuers within the short-term bond market.
- The Investment Policy Statement appropriately constrains the CAT Funds to invest in short-term and high quality bonds to minimize both interest rate and credit risk.
- Adequate liquidity exists to address the cash flow obligations of the CAT Funds.
- The Investment Policy Statement is revisited periodically to ensure that the structure and guidelines of the CAT Funds are appropriate, taking into consideration the CAT Funds' goals and objectives.

## CAT Funds Investment Results Periods Ending 9/30/2017



\*CAT Operating Fund: Beginning March 2008, the returns for the CAT Fund reflect marked-to-market returns. Prior to that time, cost-based returns are used.

\*\*Performance Benchmark: The CAT Fund was benchmarked to the IBC First Tier through February 2008. From March 2008 to December 2009, it was the Merrill Lynch 1-Month LIBOR. From January 2010 to June 2010, it was a blend of the average of the 3-Month Treasury Bill rate and the iMoneyNet First Tier Institutional Money Market Funds Gross Index. From July 2010 to September 2014, it was a blend of the average of the 3-Month Treasury Bill rate and the iMoneyNet First Tier Institutional Money Market Funds Net Index. Effective October 2014, it is a blend of the average of the Merrill Lynch 1-Yr US Treasury Bill Index and the iMoneyNet First Tier Institutional Money Market Funds Net Index.

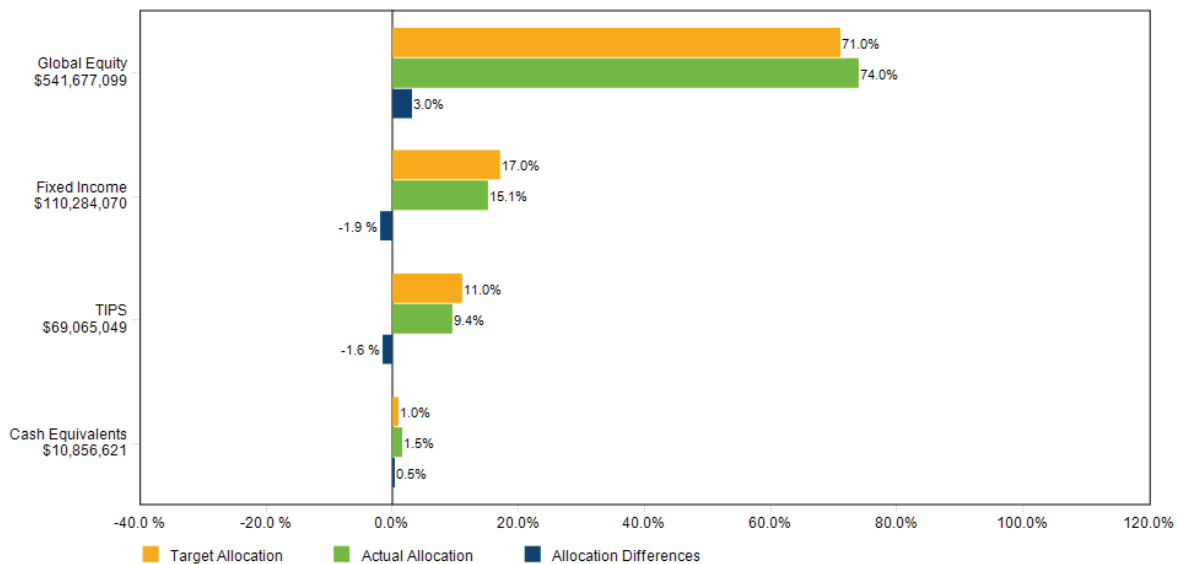


## Lawton Chiles Endowment Fund: Executive Summary

- Established in July 1999, the Lawton Chiles Endowment Fund (LCEF) was created to provide a source of funding for child health and welfare programs, elder programs and research related to tobacco use.
  - The investment objective is to preserve the real value of the net contributed principal and provide annual cash flows for appropriation.
  - The Endowment's investments are diversified across various asset classes including global equity, fixed income, inflation-indexed bonds (TIPS) and cash.
- The Endowment assets totaled \$731.9 million as of September 30, 2017.
- The Endowment's return outperformed its Target over the quarter and the trailing one-, three-, five-, and ten-year time periods.

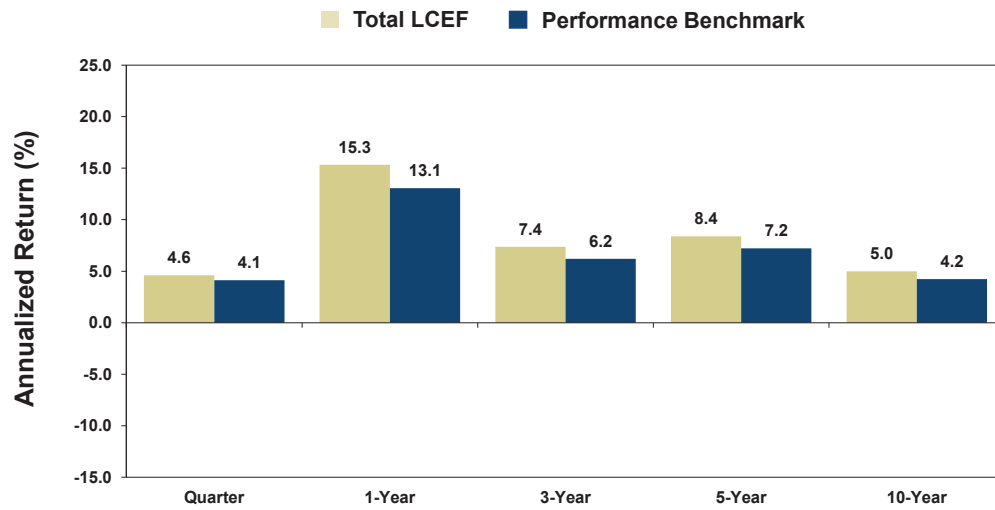
## Asset Allocation as of 9/30/2017 Total LCEF Assets = \$731.9 Million

	Market Value (\$)	Current Allocation (%)	Target Allocation (%)	Minimum Allocation (%)	Maximum Allocation (%)
LCEF Total Fund	731,882,839	100.0	100.0		
Global Equity	541,677,099	74.0	71.0	61.0	81.0
Fixed Income	110,284,070	15.1	17.0	12.0	22.0
TIPS	69,065,049	9.4	11.0	6.0	16.0
Cash Equivalents	10,856,621	1.5	1.0	0.0	10.0



# LCEF Investment Results

## Periods Ending 9/30/2017

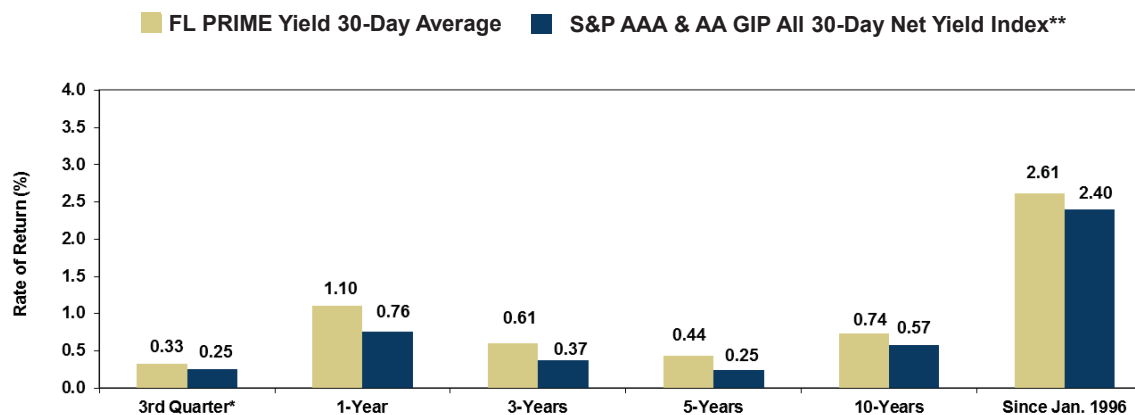


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## Florida PRIME: Executive Summary

- The purpose of Florida PRIME is safety, liquidity, and competitive returns with minimal risk for participants.
- The Investment Policy Statement appropriately constrains Florida PRIME to invest in short-term and high quality bonds to minimize both interest rate and credit risk.
- Florida PRIME is adequately diversified across issuers within the short-term bond market, and adequate liquidity exists to address the cash flow obligations of Florida PRIME.
- Performance of Florida PRIME has been strong over short- and long-term time periods, outperforming its performance benchmark during the third quarter and over the trailing one-, three-, five-, and ten-year time periods.
- As of September 30, 2017, the total market value of Florida PRIME was \$8.0 billion.
- Aon Hewitt Investment Consulting, in conjunction with SBA staff, compiles an annual best practices report that includes a full review of the Investment Policy Statement, operational items, and investment structure for Florida PRIME.

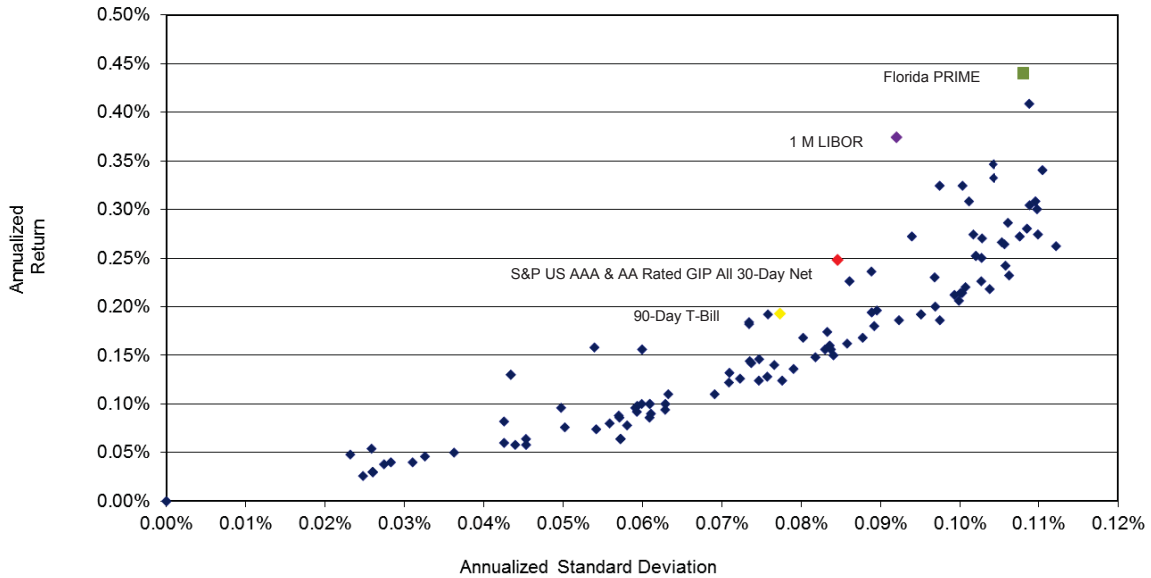
## Florida PRIME Investment Results Periods Ending 9/30/2017



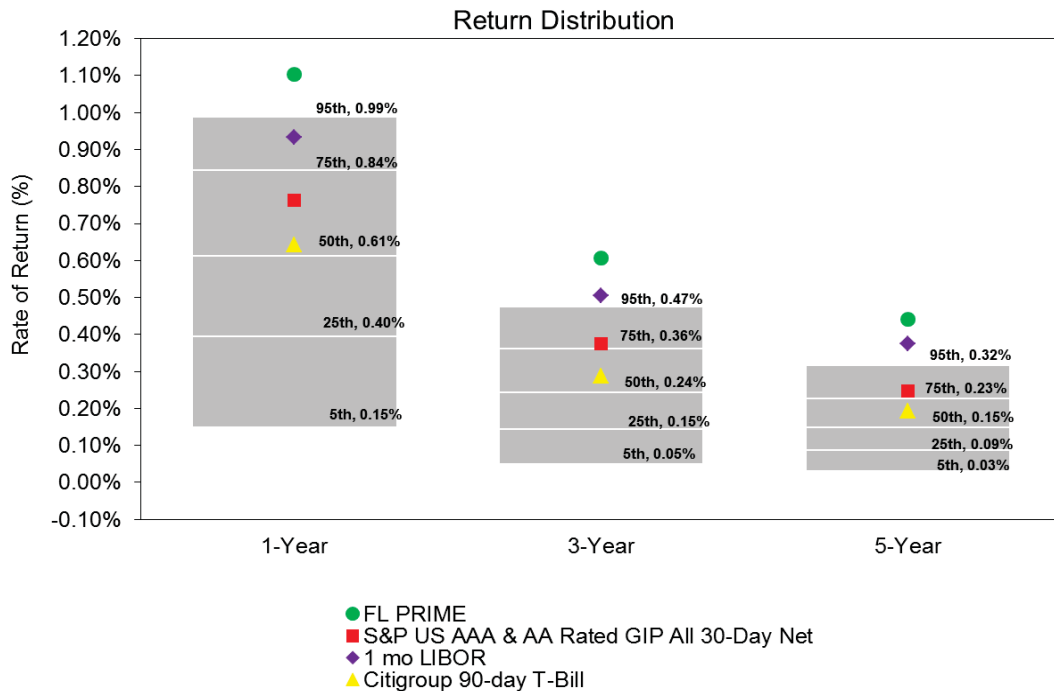
\*Returns less than one year are not annualized.

\*\*S&P AAA & AA GIP All 30-Day Net Yield Index for all time periods shown.

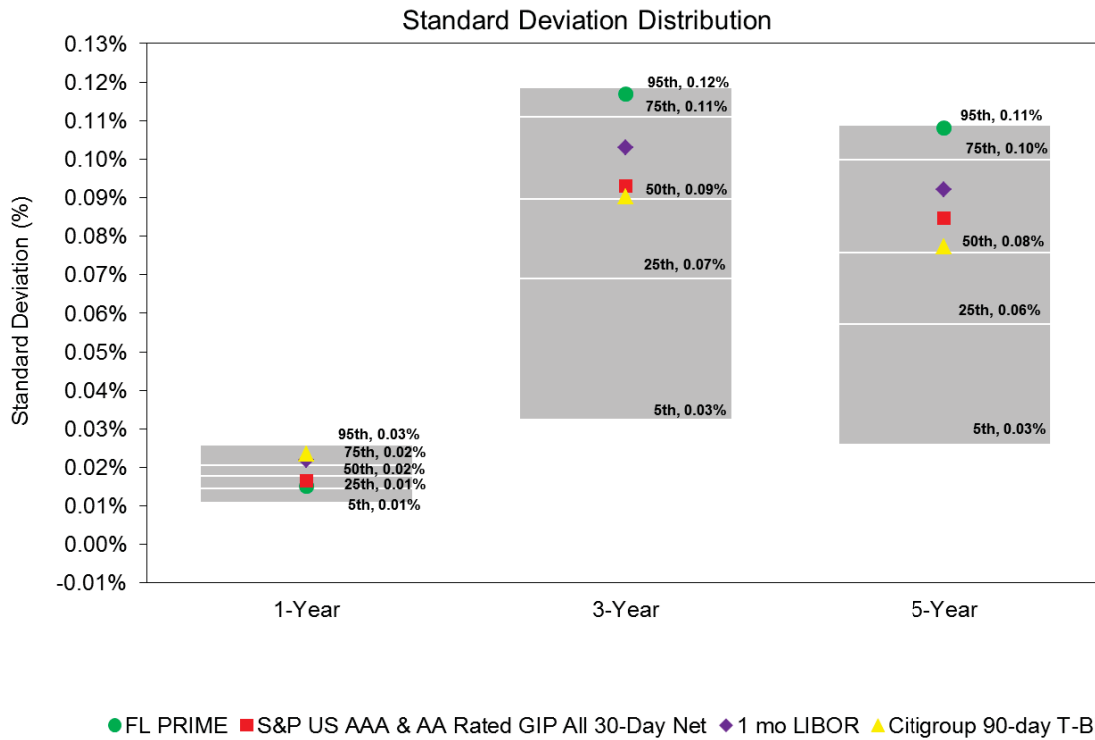
# Florida PRIME Risk vs. Return 5 Years Ending 9/30/2017



# Return Distribution Periods Ending 9/30/2017



# Standard Deviation Distribution Periods Ending 9/30/2017



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## Appendix

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## FRS Investment Plan Costs

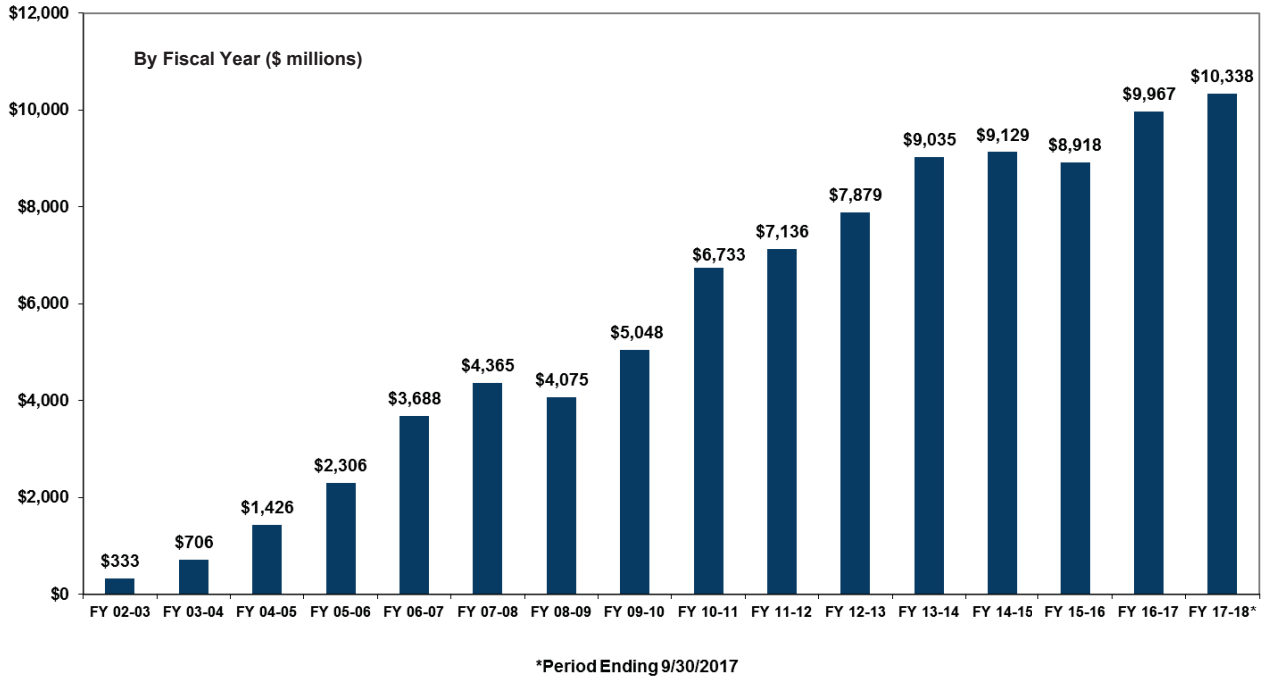
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Investment Category	Investment Plan Fee*	Average Mutual Fund Fee**
Large Cap Equity	0.15%	0.84%
Small-Mid Cap Equity	0.59%	1.03%
International Equity	0.31%	1.05%
Diversified Bonds	0.15%	0.58%
Target Date	0.12%	0.64%
Money Market	0.06%	0.18%

\*Average fee of multiple products in category as of 9/30/2017.

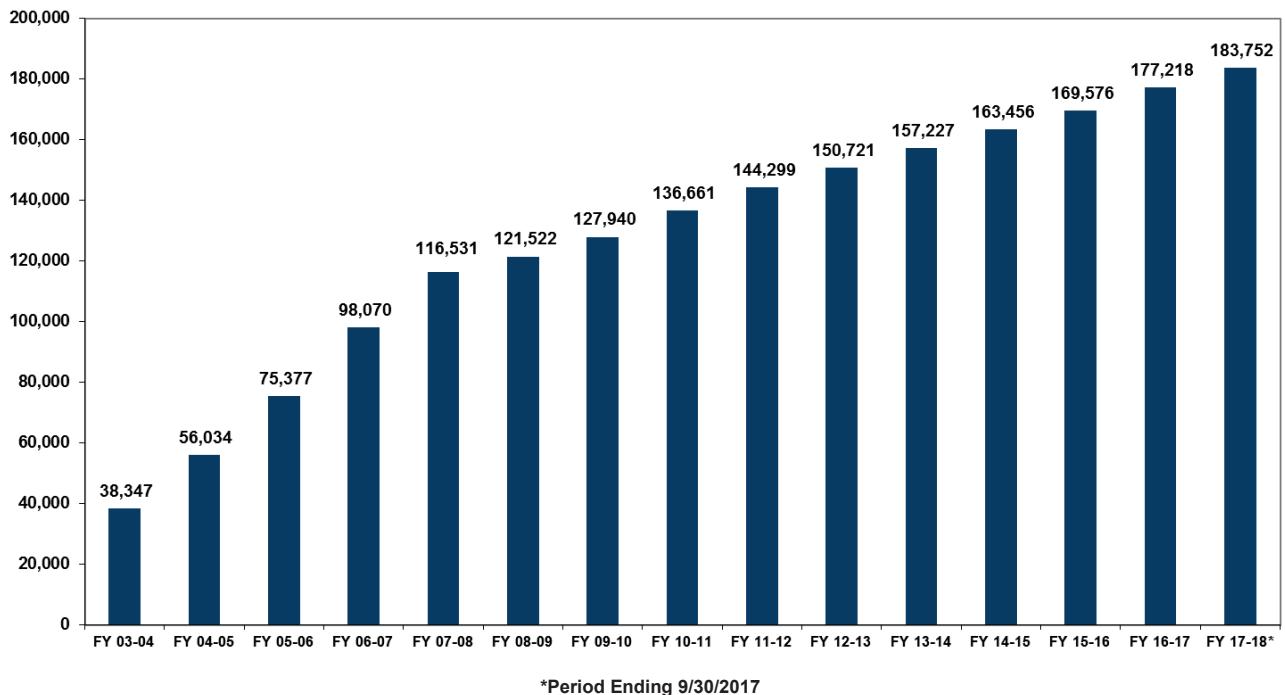
\*\*Source: AHIC's annual mutual fund expense analysis as of 12/31/2016.

## Investment Plan Fiscal Year End Assets Under Management



Source: Investment Plan Administrator

## Investment Plan Membership



Source: Investment Plan Administrator

## Florida Hurricane Catastrophe Fund Background

- The purpose of the Florida Hurricane Catastrophe Fund (FHCF) is to provide a stable, ongoing and timely source of reimbursement to insurers for a portion of their hurricane losses.
- Both the CAT Fund (Operating Fund) and the CAT 2013 A Fund are internally managed portfolios benchmarked to a blend of the average of the Merrill Lynch 1-Yr US Treasury Bill Index and the iMoneyNet First Tier Institutional Money Market Funds Net Index.
- As of September 30, 2017, the total value of all FHCF accounts was \$17.0 billion.

## CAT Operating Fund Characteristics Period Ending 9/30/2017

<b>Maturity Analysis</b>	
1 to 30 Days	38.42%
31 to 60 Days	11.01
61 to 90 Days	5.85
91 to 120 Days	1.42
121 to 150 Days	6.74
151 to 180 Days	4.37
181 to 270 Days	7.05
271 to 365 Days	12.43
366 to 455 Days	2.49
>= 456 Days	10.22
<b>Total % of Portfolio:</b>	<b>100.00%</b>

<b>Bond Rating Analysis</b>	
AAA	46.21%
AA	15.29
A	38.50
Baa	0.00
Other	0.00
<b>Total % of Portfolio</b>	<b>100.00%</b>



## CAT 2013 A Fund Characteristics Period Ending 9/30/2017

<b>Maturity Analysis</b>	
1 to 30 Days	12.82%
31 to 60 Days	4.43
61 to 90 Days	3.32
91 to 120 Days	1.26
121 to 150 Days	9.28
151 to 180 Days	4.64
181 to 270 Days	6.62
271 to 365 Days	37.90
366 to 455 Days	3.32
>= 456 Days	16.41
<b>Total % of Portfolio:</b>	<b>100.00%</b>

<b>Bond Rating Analysis</b>	
AAA	73.67%
AA	12.64
A	13.69
Baa	0.00
Other	0.00
<b>Total % of Portfolio</b>	<b>100.00%</b>

## CAT 2016 A Fund Characteristics Period Ending 9/30/2017

<b>Maturity Analysis</b>	
1 to 30 Days	22.24%
31 to 60 Days	8.99
61 to 90 Days	8.25
91 to 120 Days	3.10
121 to 150 Days	3.73
151 to 180 Days	0.59
181 to 270 Days	9.53
271 to 365 Days	20.79
366 to 455 Days	2.08
>= 456 Days	20.70
<b>Total % of Portfolio:</b>	<b>100.00%</b>

<b>Bond Rating Analysis</b>	
AAA	68.60%
AA	12.98
A	18.42
Baa	0.00
Other	0.00
<b>Total % of Portfolio</b>	<b>100.00%</b>

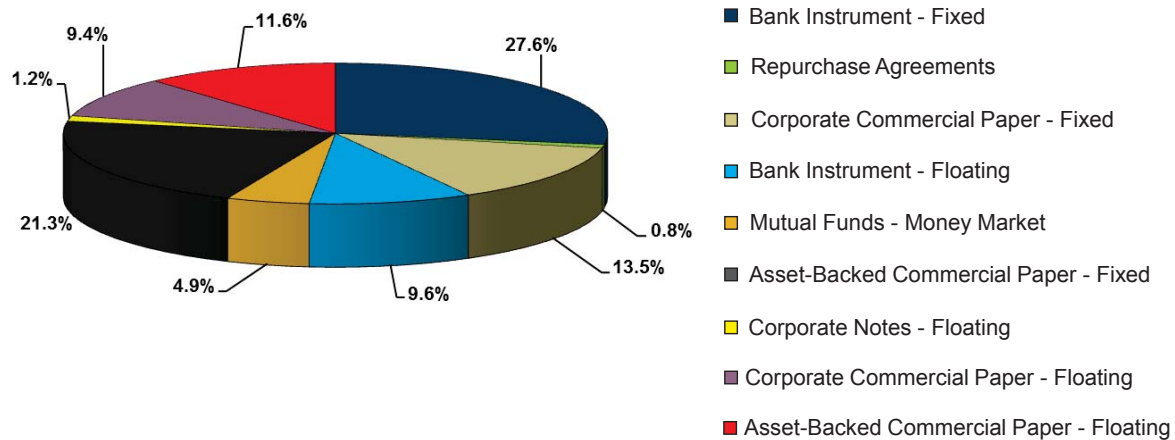
## Florida PRIME Characteristics Quarter Ending 9/30/2017

Cash Flows as of 9/30/2017	Third Quarter	Fiscal YTD*
Opening Balance	\$9,329,349,587	\$9,329,349,587
Participant Deposits	\$2,939,117,513	\$2,939,117,513
Gross Earnings	\$30,151,547	\$30,151,547
Participant Withdrawals	(\$4,254,907,968)	(\$4,254,907,968)
Fees	(\$736,465)	(\$736,465)
Closing Balance (9/30/2017)	\$8,042,974,215	\$8,042,974,215
<b>Change</b>	<b>(\$1,286,375,372)</b>	<b>(\$1,286,375,372)</b>

\*Period July 2017 – September 2017

## Florida PRIME Characteristics Quarter Ending 9/30/2017

### Portfolio Composition



## Florida PRIME Characteristics Period Ending 9/30/2017

Effective Maturity Schedule	
1-7 Days	38.2%
8 - 30 Days	21.3%
31 - 90 Days	23.7%
91 - 180 Days	10.2%
181+ Days	6.6%
<b>Total % of Portfolio:</b>	<b>100.0%</b>

S & P Credit Quality Composition	
A-1+	70.6%
A-1	29.4%
<b>Total % of Portfolio:</b>	<b>100.0%</b>



FRS Pension Plan | Third Quarter 2017

## Quarterly Investment Review

Visit the Aon Hewitt Retirement and Investment Blog (<http://retirementandinvestmentblog.aon.com>); sharing our best thinking.

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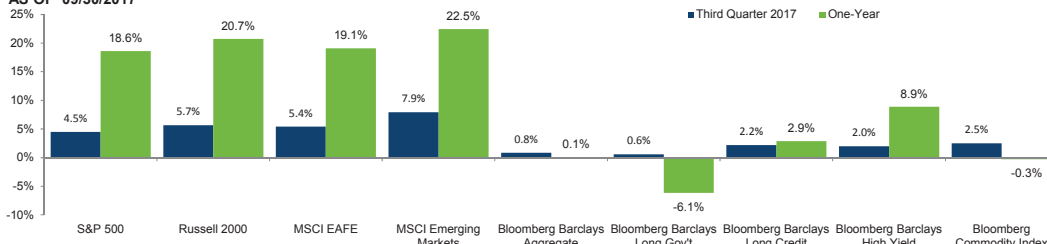
## Market Environment

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## Market Highlights

### SHORT TERM RETURNS

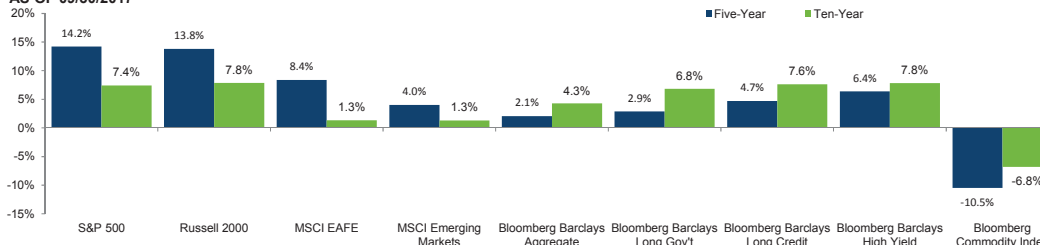
AS OF 09/30/2017



Source: Russell, MSCI, Bloomberg Barclays, Bloomberg

### LONG TERM ANNUALIZED RETURNS

AS OF 09/30/2017



Source: Russell, MSCI, Bloomberg Barclays, Bloomberg

## Market Highlights

### Returns of the Major Capital Markets

	Period Ending 09/30/2017					
	Third Quarter	Year-to-Date	1-Year	3-Year <sup>1</sup>	5-Year <sup>2</sup>	10-Year <sup>3</sup>
<b>Equity</b>						
MSCI All Country World IMI	5.32%	17.24%	18.73%	7.72%	10.42%	4.18%
MSCI All Country World	5.18%	17.25%	18.65%	7.43%	10.20%	3.88%
Dow Jones U.S. Total Stock Market	4.57%	13.95%	18.66%	10.69%	14.15%	7.64%
Russell 3000	4.57%	13.91%	18.71%	10.74%	14.23%	7.57%
S&P 500	4.48%	14.24%	18.61%	10.81%	14.22%	7.44%
Russell 2000	5.67%	10.94%	20.74%	12.18%	13.79%	7.85%
MSCI All Country World ex-U.S. IMI	6.27%	21.47%	19.55%	5.16%	7.32%	1.59%
MSCI All Country World ex-U.S.	6.16%	21.13%	19.61%	4.70%	6.97%	1.28%
MSCI EAFE	5.41%	19.96%	19.10%	5.04%	8.38%	1.34%
MSCI EAFE (Local Currency)	3.36%	11.16%	19.02%	7.87%	12.26%	2.62%
MSCI Emerging Markets	7.89%	27.78%	22.46%	4.90%	3.99%	1.32%
<b>Fixed Income</b>						
Bloomberg Barclays Global Aggregate	1.76%	6.25%	-1.26%	1.30%	0.48%	3.31%
Bloomberg Barclays Aggregate	0.85%	3.14%	0.07%	2.71%	2.06%	4.28%
Bloomberg Barclays Long Gov't	0.59%	6.06%	-6.15%	4.84%	2.87%	6.83%
Bloomberg Barclays Long Credit	2.17%	8.75%	2.88%	5.98%	4.71%	7.62%
Bloomberg Barclays Long Gov't/Credit	1.53%	7.65%	-0.79%	5.45%	3.94%	7.36%
Bloomberg Barclays US TIPS	0.86%	1.72%	-0.72%	1.62%	0.02%	3.90%
Bloomberg Barclays High Yield	1.98%	7.00%	8.88%	5.83%	6.37%	7.84%
Citi Group Non-U.S. WGBI	2.57%	8.63%	-3.14%	0.47%	-1.07%	2.67%
JP Morgan EMBI Global (Emerging Markets)	2.38%	8.73%	4.15%	6.05%	4.32%	7.28%
<b>Commodities</b>						
Bloomberg Commodity Index	2.52%	-2.87%	-0.29%	-10.41%	-10.47%	-6.83%
Goldman Sachs Commodity Index	7.22%	-3.76%	1.79%	-19.56%	-14.38%	-10.02%
<b>Hedge Funds</b>						
HFRF Fund-Weighted Composite <sup>2</sup>	2.06%	5.70%	6.95%	3.34%	4.67%	3.06%
HFRF Fund of Funds <sup>2</sup>	2.24%	5.52%	6.43%	2.21%	3.84%	1.07%
<b>Real Estate</b>						
NAREIT U.S. Equity REITS	0.94%	3.67%	0.67%	9.86%	9.69%	5.83%
NCREIF NFI - ODCE <sup>3</sup>	1.86%	5.43%	7.66%	10.85%	11.59%	5.03%
<b>Private Equity</b>						
Burgiss Private IQ Global Private Equity <sup>4</sup>	NA	NA	12.92%	9.63%	11.68%	8.98%
<b>Infrastructure</b>						
FTSE Global Core Infrastructure Index	2.20%	11.92%	8.76%	3.27%	6.97%	3.66%

MSCI Indices show net returns.

All other indices show total returns.

<sup>1</sup> Periods are annualized.

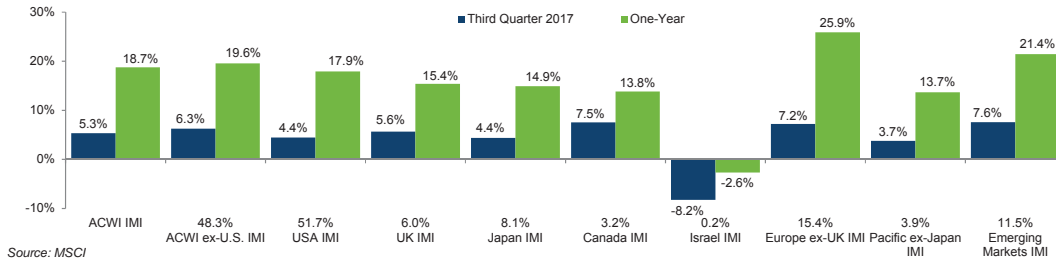
<sup>2</sup> Latest 5 months of HFR data are estimated by HFR and may change in the future.

<sup>3</sup> Third quarter results are preliminary.

<sup>4</sup> Source: Burgiss Private IQ. Benchmark is as of 03/31/2017.

## Global Equity Markets

**GLOBAL MSCI IMI INDEX RETURNS  
AS OF 09/30/2017**

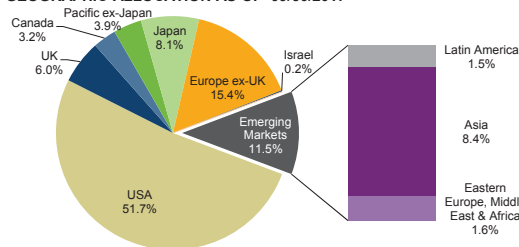


Evidence of improving global growth and low inflation continued to sustain the global equity market rally over the last quarter. Moreover, markets were broadly unperturbed by heightened tensions between the U.S. and North Korea. Global equity markets returned 5.3% in Q3 2017 in U.S. dollar terms. The broad weakening of the U.S. dollar (1.7% in trade-weighted terms) led to a lower return of 4.5% in local currency terms.

All regions shown above generated positive returns with the exception of Israel which moved sharply lower over the quarter. Emerging markets (EM) were once again the strongest performers, returning 7.6% in the third quarter of 2017.

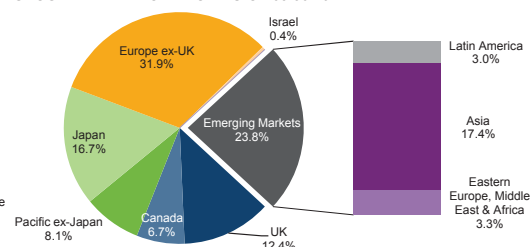
## Global Equity Markets

**MSCI ALL COUNTRY WORLD IMI INDEX  
GEOGRAPHIC ALLOCATION AS OF 09/30/2017**



Source: MSCI

**MSCI ALL COUNTRY WORLD EX-U.S. IMI INDEX  
GEOGRAPHIC ALLOCATION AS OF 09/30/2017**

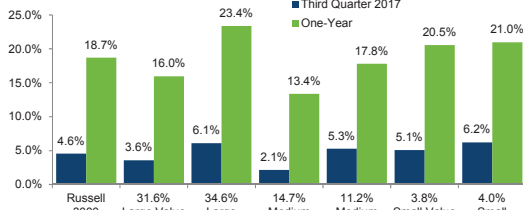


Source: MSCI

The two exhibits on this slide illustrate the percentage that each country/region represents of the global and international equity markets as measured by the MSCI All Country World IMI Index and the MSCI All Country World ex-U.S. IMI Index, respectively.

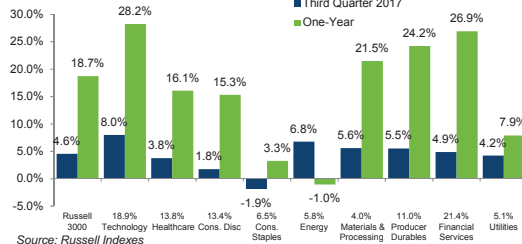
## U.S. Equity Markets

**RUSSELL STYLE RETURNS  
AS OF 09/30/2017**



Source: Russell Indexes

**RUSSELL GICS SECTOR RETURNS  
AS OF 09/30/2017**



Source: Russell Indexes

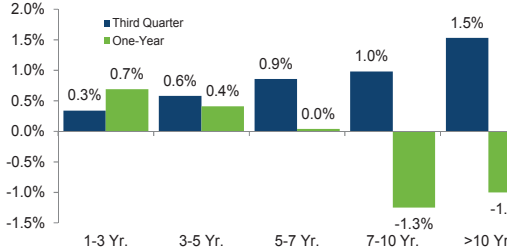
The Russell 3000 Index returned 4.6% during the third quarter and 18.7% over the one-year period.

During the third quarter, the technology sector continued to be the strongest performer, posting returns of 8.0%. Consumer staples were the weakest and the only sector which posted negative returns in Q3 2017 by falling 1.9%.

Performance was positive across the market capitalization spectrum over the quarter. Renewed expectations for U.S. tax reform, announced late in the quarter, provided a boost for small cap stocks which outperformed their large cap peers. However, despite the recent outperformance, small cap stocks still lagged large cap stocks since the start of the year. In general, growth stocks outperformed value stocks.

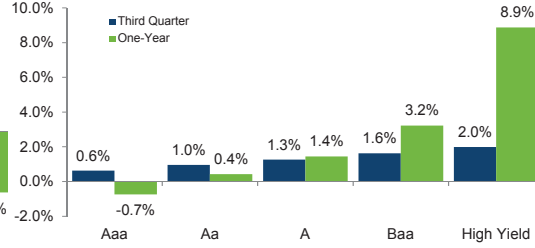
## U.S. Fixed Income Markets

**BLOOMBERG BARCLAYS U.S. AGGREGATE RETURNS  
BY MATURITY AS OF 9/30/2017**



Source: Bloomberg Barclays

**BLOOMBERG BARCLAYS U.S. AGGREGATE RETURNS  
BY QUALITY AND HIGH YIELD RETURNS AS OF 9/30/2017**



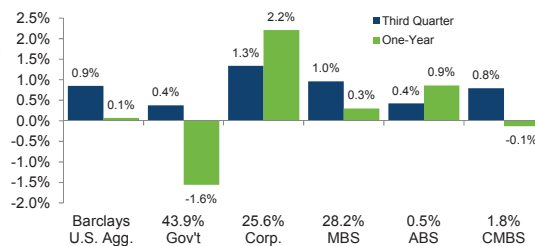
Source: Bloomberg Barclays

The Bloomberg Barclays U.S. Aggregate Bond Index returned 0.9% in the third quarter. Credit spreads narrowed over the quarter which supported corporate bond returns. Corporate bonds posted the highest return at 1.3%, particularly outperforming government bonds which had the lowest return of only 0.4%.

High yield bonds outperformed their investment grade bond peers, returning nearly 2.0%.

Long duration bonds outperformed intermediate and short duration bonds through the quarter.

**BLOOMBERG BARCLAYS U.S. AGGREGATE RETURNS  
BY SECTOR AS OF 9/30/2017**



Source: Bloomberg Barclays



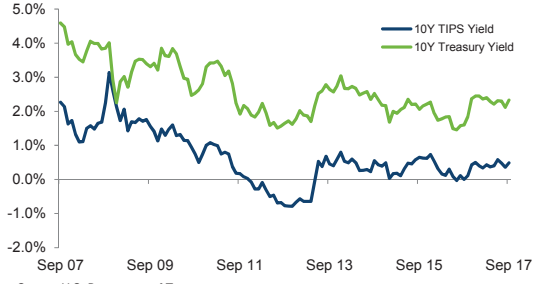
## U.S. Fixed Income Markets

**U.S. TREASURY YIELD CURVE**



Source: U.S. Department of Treasury

**U.S. 10-YEAR TREASURY AND TIPS YIELDS**



Source: U.S. Department of Treasury

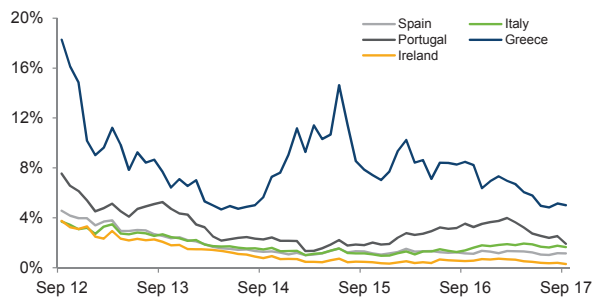
The Treasury yield curve marginally flattened over the quarter, as yields of short maturity bonds inched higher while longer maturity bonds were relatively unchanged.

The 10-year U.S. Treasury yield ended the quarter at 2.3%, 2 basis points (bps) higher than at the start of the quarter. This was largely driven by higher breakeven inflation which moved 11 bps higher and offset the fall in real yields.

The 10-year TIPS yield fell by 9 bps over the quarter and ended the period at 0.5%.

## European Fixed Income Markets

**EUROZONE PERIPHERAL BOND SPREADS  
(10-YEAR SPREADS OVER GERMAN BUNDS)**



Source: DataStream

In the Eurozone, bond spreads were mixed across peripheral region. Spain's government bond yields rose by 8 bps with the majority of the increase coming towards the end of the quarter as political instability due to Catalanian Independence referendum grew. Meanwhile, Portuguese government bond yields fell sharply after the rating agency Standard & Poor's raised the nation's credit rating to investment grade from junk status, resulting in the yield on 10 year Portuguese government debt ending 64 bps lower over Q3 2017. Meanwhile, the spread between Greek bonds and German Bunds moved 24 bps higher over the same period.

## Credit Spreads

Spread (bps)	30/09/2017	30/06/2017	30/09/2016	Quarterly Change (bps)	1-Year Change (bps)
U.S. Aggregate	38	43	47	-5	-9
Long Govt	2	2	3	0	-1
Long Credit	149	157	195	-8	-46
Long Govt/Credit	90	94	118	-4	-28
MBS	22	32	14	-10	8
CMBS	71	74	84	-3	-13
ABS	44	46	55	-2	-11
Corporate	101	109	138	-8	-37
High Yield	347	364	480	-17	-133
Global Emerging Markets	235	255	299	-20	-64

Source: Bloomberg Barclays

Improved risk appetite and a benign global credit backdrop saw spreads over U.S. Treasuries fall across all areas of the credit market. However, movement in U.S investment grade credit spreads were more muted.

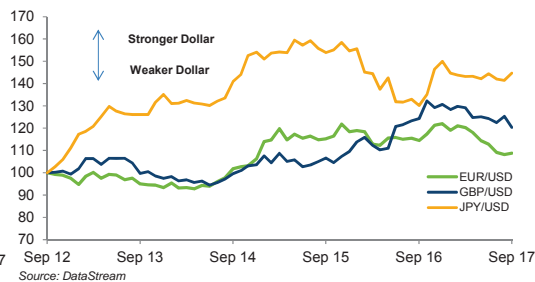
Global emerging market bond spreads fell by the most over the quarter, narrowing by 20 bps. They were closely followed by high yield bonds, their fellow outperformers in the credit universe this year, which fell by 17 bps.

## Currency

**TRADE WEIGHTED U.S. DOLLAR INDEX**  
(1997 = 100)



**U.S. DOLLAR RELATIVE TO EUR, GBP AND JPY**  
REBASED TO 100 AT 09/30/2012

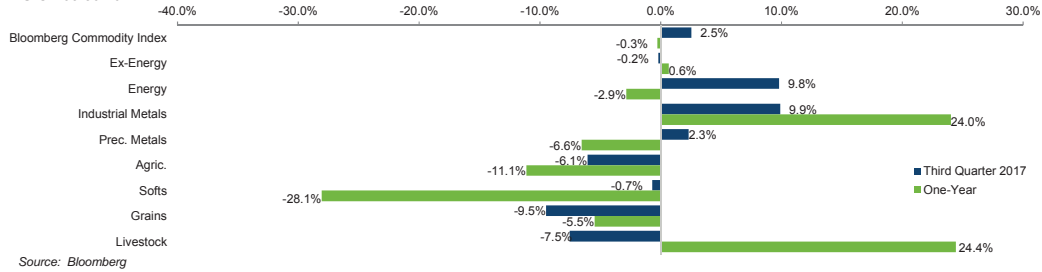


The U.S. dollar weakened by 1.7% on a trade-weighted basis over the quarter. Market expectations of a rate hike were lowered after a flurry of disappointing inflation releases, although the U.S. Federal Reserve (Fed) continued to believe that the factors suppressing inflation are transitory.

The U.S. dollar depreciated against all the major currencies with the exception of the Japanese yen. Bank of England officials indicated UK monetary policy struck a more hawkish tone in September which sent sterling 3.2% higher against the U.S. dollar. Despite a brief period of safe-haven flow activity amid escalating geopolitical tensions in the Korean peninsula, the yen fell by 0.2% against the U.S. dollar. Resilient economic data emanating from the Eurozone supported the euro's 3.5% appreciation against the 'greenback'.

## Commodities

### COMMODITY RETURNS AS OF 09/30/2017



Source: Bloomberg

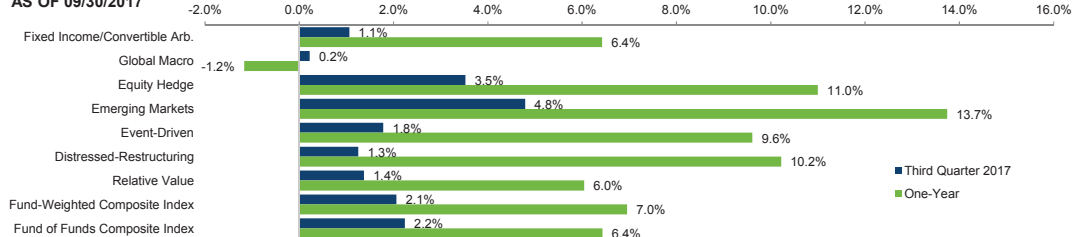
A strong upturn in commodity prices over the quarter saw the Bloomberg Commodity Index return 2.5%, driven mainly by the rise in crude oil prices.

Over the quarter, the best performing segment was industrial metals with a return of 9.9%, closely followed by Energy (9.8%). Agriculture remained the laggard with a return of -6.1% which weighed on the overall index return.

Grains was the worst performing sector over the quarter with a return of -9.5%.

## Hedge Fund Markets Overview

### HEDGE FUND PERFORMANCE AS OF 09/30/2017



Note: Latest 5 months of HFR data are estimated by HFR and may change in the future.  
Source: HFR

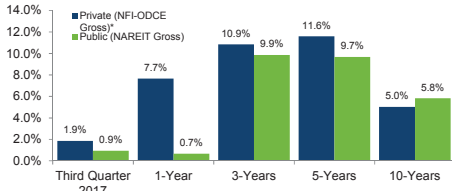
Hedge fund performance was positive across all strategies in the third quarter.

The HFRI Fund-Weighted Composite Index and the HFRI Fund of Funds Composite Index produced returns of 2.1% and 2.2%, respectively, during the quarter.

Emerging market hedge funds continued to be the best performer, posting a return of 4.8% during the third quarter which brought the one-year return to 13.7%.

## U.S. Commercial Real Estate Markets

### PRIVATE VS. PUBLIC REAL ESTATE RETURNS AS OF 06/30/2017



\*Third quarter returns are preliminary  
Sources: NCREIF, NAREIT

**Returns continue to moderate.** The trailing one-year return for U.S. core real estate was 7.7%\* in the third quarter, down 242 bps from this time last year. While moderating, returns are now back in line with the sector's long run average range of 7.0-9.0%. During the quarter, returns climbed slightly to 1.9%\*, up 16 bps over Q2 but 21 bps lower year-on-year and 182 bps lower than 3Q2015. Income is now, and will continue to be, the larger driver of the sector's total return. Continued moderation is expected.

Property stocks are up 7.3% YTD, globally. In 3Q, global property stocks (FTSE EPRA/NAREIT Developed Index) posted modest gains (1.8%), with positive returns in each of the major regions. Both the Europe (4.9%) and Asia (2.0%) regions outperformed. The U.S. REIT market (FTSE NAREIT Equity REITs Index), while slightly positive (0.9%), underperformed on a relative basis during the quarter and also lags year to date. During the quarter, strong share price gains were seen in the Industrial, Data Center, Net Lease, and Storage sectors, with weakness in the Health Care and Mail sectors. Values for high quality assets have remained relatively stable; however, there is a wide disparity in relative valuations within the property sectors, with the overall U.S. REITs market ending the quarter trading at an approximate 2.0% premium. Despite the significant destructive impact of Hurricanes Harvey (Houston) and Irma (Florida), the negative financial impact to the REITs is expected to be minimal. Overall U.S. public REIT exposure is only approximately 3.0% to Houston, 5.0% to Florida and <0.5% to Puerto Rico.

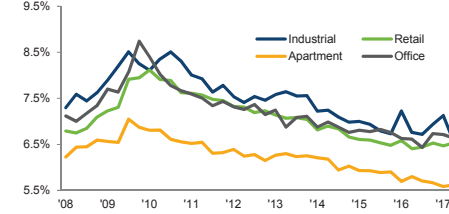
**Pricing.** The more typical relationship between deal volume and pricing has not moved in unison for almost two years now. While the reason varies by property type, in most cases, volume has moved lower while prices have moved higher. This indicates a continuing disconnect between buyers' and sellers' expectations, which has been evident in sales trends since volume peaked in 4Q2015. Cap rates, however, have remained at or near recent lows — that said, there is little expectation of them going lower.

**Capital flows remain robust.** Private real estate dry powder globally (capital already allocated to new investments) now totals over \$240.0bn; and far exceeds the peak of the last recession. The majority of the sector's dry powder sits in opportunistic and value add funds, accounting for 41.0% and 24.0% of the total, respectively. Capital flows into U.S. commercial real estate, in particular, remain healthy and have not been disrupted by on-going global events as investors continue to favor the U.S. at this point in the cycle due to the maturity and liquidity of U.S. markets.

**Portfolio structure important.** Overall, real estate fundamentals and pricing are at a mature point in the real estate cycle. Given that, it is important to ensure that risk mitigation strategies are incorporated into all portfolios' structure. Preferred equity, secondaries, and debt structures are important investment considerations that can help mitigate medium term cyclical risks.

Sources: NCREIF, RCA, CBRE-EA, Aon Hewitt  
\*Indicates preliminary NFI-ODCE data gross of fees

### CAP RATES BY PROPERTY TYPE

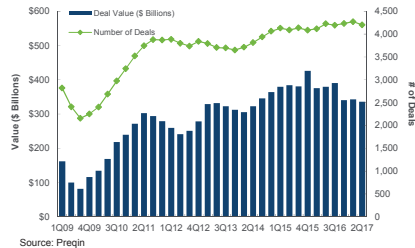


Sources: RCA, AHIC 6/30/2017



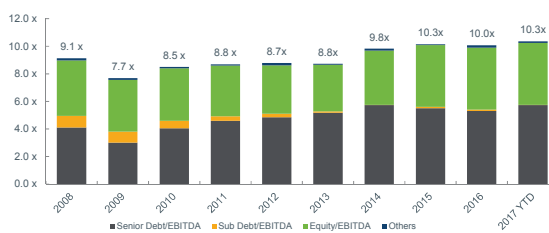
## Private Equity Market Overview – Second Quarter 2017

### LTM Global Private Equity-Backed Buyout Deal Volume



Source: Preqin

### Purchase Price Multiples – All Transactions Sizes



Source: S&P

**Fundraising:** In 2Q 2017, \$162.0 billion was raised by 297 funds, which was up 8.7% on a capital basis and 11.2% by number of deals from the prior quarter. Dry powder stood at \$1.3 trillion at the end of the quarter, up 3.7% and 31.1% compared to 1Q 2017 and the five year average, respectively <sup>1</sup>.

**Buyout:** Global private equity-backed buyout deals totaled \$93.2 billion in 2Q 2017, which was up 67.9% and 7.5% from the prior quarter and five year average, respectively <sup>1</sup>. At the end of 2Q 2017, the average purchase price multiple for all U.S. LBOs was 10.3x EBITDA, up from 10.2x as of the end of 1Q 2017. Large cap middle-market purchase price multiples stood at 10.3x, up compared to both 1Q 2017 and full year 2016 levels of 9.6x and 10.0x, respectively. The weighted average purchase price multiple across all European transaction sizes averaged 10.8x EBITDA on an LTM basis in 2Q 2017, down slightly from 10.9x in 1Q 2017. Purchase prices for transactions of €1.0 billion or more decreased from 11.8x in 1Q 2017 to 11.6x in the second quarter. Transactions between €500.0 million and €1.0 billion were down 0.1x from the end of 1Q 2017, and stood at 11.2x <sup>2</sup>. Globally, exit value totaled \$68.7 billion on 417 deals in 2Q 2017 compared to \$49.9 billion on 437 deals in the prior quarter <sup>1</sup>.

**Venture:** During the second quarter, 1,152 venture backed transactions totaling \$18.4 billion were completed, up on a capital basis from 1Q 2017's total of \$14.4 billion across 1,206 deals. This was 44.9% higher than the five-year average of \$12.7 billion <sup>3</sup>. Total U.S. venture backed exit activity totaled \$10.5 billion across 156 completed transactions in 2Q 2017, down from \$14.6 billion across 196 exits in 1Q 2017 <sup>4</sup>.

**Mezzanine:** 10 funds closed on \$2.3 billion during the quarter, down from 1Q 2017's total of \$3.0 billion raised by 11 funds and the five year quarterly average of \$4.7 billion. Estimated dry powder was \$50.0 billion at the end of 2Q 2017, down from \$51.6 billion in 1Q 2017 <sup>1</sup>. Fundraising activity remains robust with an estimated 66 funds in market targeting \$14.3 billion of commitments <sup>1</sup>.

**Distressed Debt:** The LTM U.S. high-yield default rate was 2.2% as of June 2017, which was down from March 2017's LTM rate of 3.9% <sup>5</sup>. Distressed debt and bankruptcy restructuring activity totaled \$105.9 billion during the first half of 2017, up 28.0% from 1H 2016. U.S. activity accounted for \$55.7 billion in 1H 2017 and was up 123.2% from the same period last year <sup>6</sup>.

**Secondaries:** 10 funds raised \$4.2 billion during the second quarter, down from \$19.4 billion by nine funds in 1Q 2017 <sup>1</sup>. The average discount rate for all private equity sectors declined 0.2% quarter-over-quarter to 8.1% <sup>7</sup>.

**Infrastructure:** \$5.3 billion of capital was raised by 11 funds in 2Q 2017 compared to \$30.7 billion of capital closed on by 18 partnerships in 1Q 2017. At the end of the quarter, dry powder stood at \$150.2 billion, up from 1Q 2017's record total of \$147.0 billion. Infrastructure managers completed 256 deals with an estimated aggregate deal value of \$104.0 billion in 2Q 2017 compared to 372 deals totaling \$216.9 billion a quarter ago <sup>1</sup>.

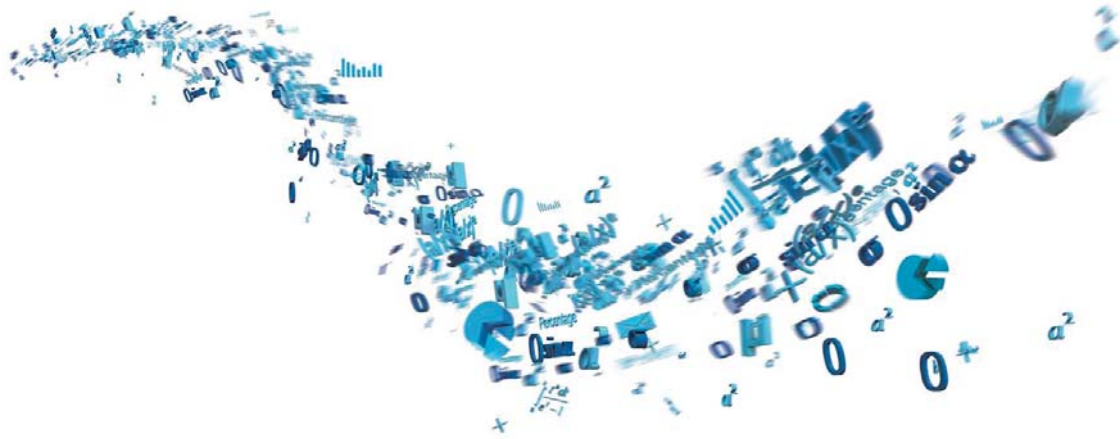
**Natural Resources:** During 2Q 2017, eight funds closed on \$4.9 billion compared to three funds totaling \$0.8 billion in 1Q 2017. Energy and utilities industry managers completed approximately 70 deals totaling an estimated \$12.6 billion through 1H 2017, which represents 59.8% of 2016's full year capital deployment <sup>1</sup>.

Sources: <sup>1</sup> Preqin <sup>2</sup> Standard & Poor's <sup>3</sup> PWC / CB Insights MoneyTree Report <sup>4</sup> PitchBook/NVCA Venture Monitor <sup>5</sup> Fitch Ratings <sup>6</sup> Thomson Reuters <sup>7</sup> UBS

Notes: FY: Fiscal year ended 12/31; YTD: Year to date; LTM: Last twelve months (aka trailing twelve months); PPM: Purchase Price Multiples: Total Purchase Price / EBITDA.



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Total Fund

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## Highlights

### Executive Summary

- Performance of the Pension Plan, when measured against the Performance Benchmark, has been strong over short- and long-term time periods.
- Performance relative to peers is also competitive over short- and long-term time periods.
- The Pension Plan is well-diversified across six broad asset classes, and each asset class is also well-diversified.
- Public market asset class investments do not significantly deviate from their broad market based benchmarks, e.g., sectors, market capitalizations, global regions, credit quality, duration, and security types.
- Private market asset classes are well-diversified by vintage year, geography, property type, sectors, investment vehicle/asset type, or investment strategy.
- Asset allocation is monitored on a daily basis to ensure the actual asset allocation of the plan remains close to the long-term policy targets set forth in the Investment Policy Statement.
- Aon Hewitt Investment Consulting and SBA staff revisit the plan design annually through informal and formal asset allocation and asset liability reviews.
- Adequate liquidity exists within the asset allocation to pay the monthly obligations of the Pension Plan consistently and on a timely basis.

### Performance Highlights

- During the third quarter, the Total Fund outperformed the Performance Benchmark. The Total Fund outperformed the Performance Benchmark during the trailing one-, three-, five-, and ten-year periods.

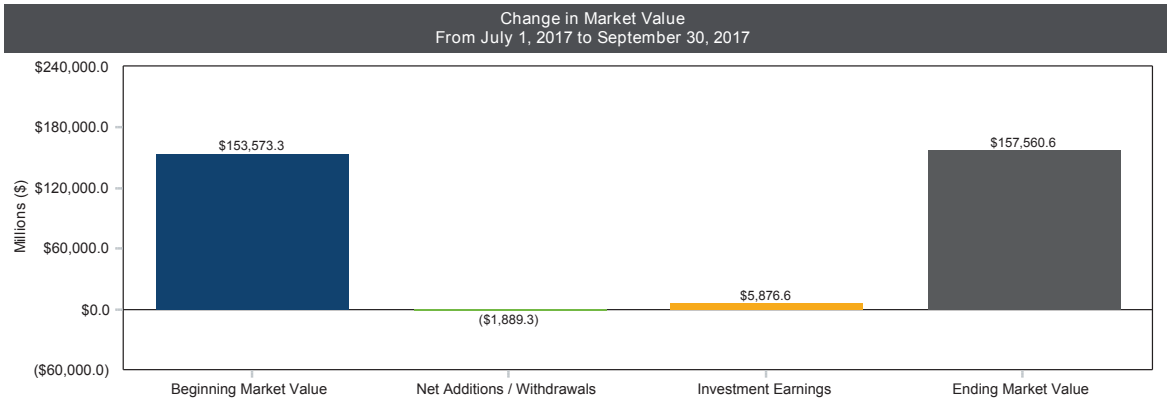
### Asset Allocation

- The Fund assets total \$157.6 billion as of September 30, 2017, which represents a \$4.0 billion increase since last quarter.
- Actual allocations for all asset classes were within their respective policy ranges at quarter-end.
- The Fund was modestly overweight to global equity, with corresponding underweights to fixed income and cash.

## Total Fund

As of September 30, 2017

## Total Plan Asset Summary



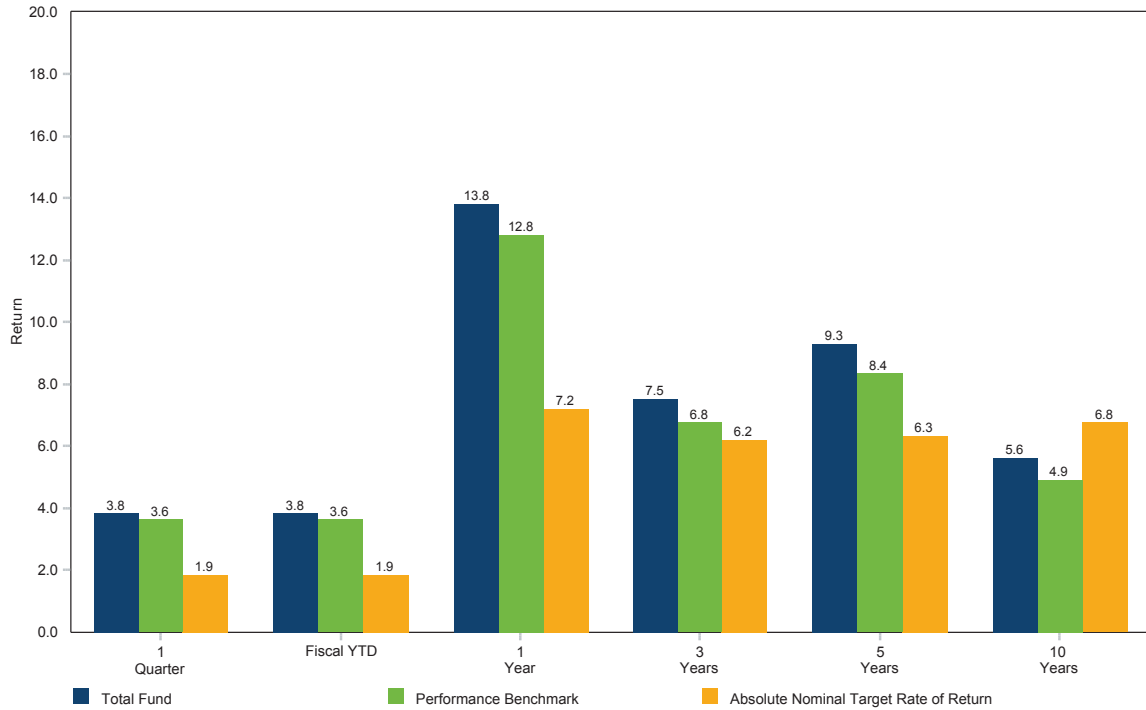
## Summary of Cash Flow

	1 Quarter	Fiscal YTD*
<b>Total Fund</b>		
Beginning Market Value	153,573,300.932	153,573,300.932
+ Additions / Withdrawals	-1,889,325.543	-1,889,325.543
+ Investment Earnings	5,876,596.851	5,876,596.851
= Ending Market Value	157,560,572.240	157,560,572.240

\*Period July 2017 - September 2017

**Total Plan Performance Summary**

**Return Summary**



**Asset Allocation & Performance**

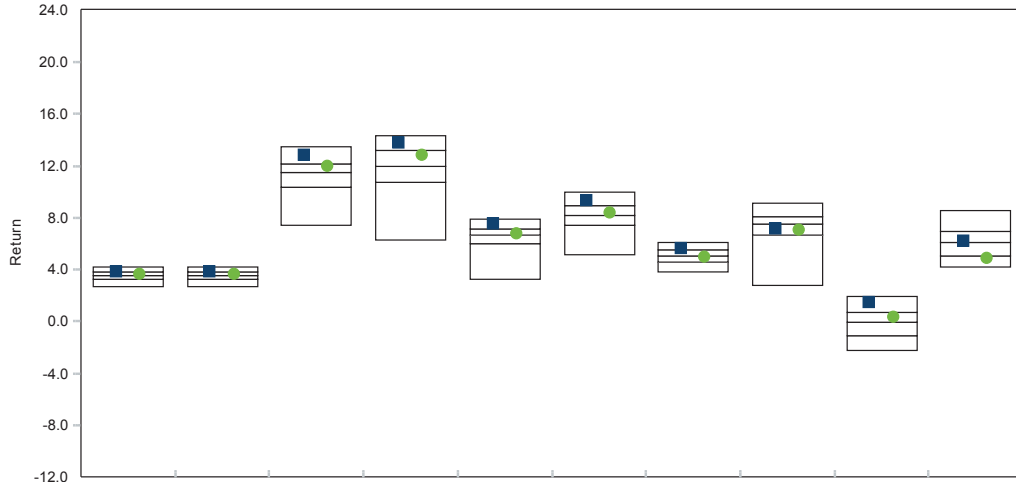
	Allocation			Performance(%)					
	Market Value (\$)	%	Policy(%)	1 Quarter	Fiscal YTD	1 Year	3 Years	5 Years	10 Years
<b>Total Fund</b>	157,560,572,240	100.0	100.0	3.8 (27)	3.8 (27)	13.8 (15)	7.5 (14)	9.3 (16)	5.6 (19)
Performance Benchmark				3.6 (43)	3.6 (43)	12.8 (35)	6.8 (45)	8.4 (44)	4.9 (61)
Absolute Nominal Target Rate of Return				1.9 (98)	1.9 (98)	7.2 (93)	6.2 (68)	6.3 (91)	6.8 (1)
<b>Global Equity*</b>	90,655,887,995	57.5	56.0	5.5	5.5	19.8	8.6	11.3	5.2
Asset Class Target				5.3	5.3	18.8	7.8	10.5	4.4
<b>Domestic Equities</b>	41,566,129,242	26.4		4.7 (42)	4.7 (42)	18.7 (33)	10.5 (34)	14.1 (19)	7.7 (17)
Asset Class Target				4.6 (49)	4.6 (49)	18.7 (33)	10.7 (20)	14.2 (15)	7.6 (20)
<b>Foreign Equities</b>	39,659,501,997	25.2		6.6 (23)	6.6 (23)	21.2 (17)	6.5 (32)	8.5 (37)	3.0 (9)
Asset Class Target				6.3 (34)	6.3 (34)	19.6 (45)	5.3 (73)	7.4 (68)	1.6 (66)
<b>Global Equities</b>	8,805,582,867	5.6		5.0	5.0	18.0	8.2	11.0	4.2
Benchmark				4.9	4.9	18.3	7.6	10.7	4.3
<b>Fixed Income</b>	28,527,267,787	18.1	19.6	0.7 (93)	0.7 (93)	0.5 (74)	2.4 (84)	1.8 (82)	4.4 (75)
Asset Class Target				0.7 (92)	0.7 (92)	0.2 (81)	2.2 (88)	1.5 (91)	4.0 (84)
<b>Private Equity</b>	10,223,127,330	6.5	6.5	4.2	4.2	17.9	13.4	15.1	9.1
Asset Class Target				4.0	4.0	21.8	10.8	14.8	9.8
<b>Real Estate</b>	13,752,422,441	8.7	8.8	1.0 (83)	1.0 (83)	7.7 (48)	10.8 (41)	12.3 (22)	6.4 (1)
Asset Class Target				1.5 (57)	1.5 (57)	6.5 (68)	10.1 (59)	10.6 (77)	4.8 (37)
<b>Strategic Investments</b>	13,112,114,905	8.3	8.2	2.2	2.2	9.7	6.0	9.2	4.1
Short-Term Target				1.7	1.7	6.4	4.2	6.2	2.0
<b>Cash</b>	1,289,751,782	0.8	1.0	0.3	0.3	0.8	0.5	0.4	-0.1
iMoneyNet First Tier Institutional Money Market Funds Net Index				0.2	0.2	0.7	0.3	0.2	0.6

Benchmark and universe descriptions can be found in the Appendix.  
 \* Global Equity became an asset class in July 2010. The historical return series prior to July 2010 was derived from the underlying Domestic Equities, Foreign Equities, and Global Equities components.



Plan Sponsor Peer Group Analysis

All Public Plans > \$1B-Total Fund



	1 Quarter	Fiscal YTD	Year To Date	1 Year	3 Years	5 Years	10 Years	2016	2015	2014
■ Total Fund	3.8 (27)	3.8 (27)	12.8 (19)	13.8 (15)	7.5 (14)	9.3 (16)	5.6 (19)	7.1 (62)	1.4 (11)	6.2 (47)
● Performance Benchmark	3.6 (43)	3.6 (43)	12.0 (31)	12.8 (35)	6.8 (45)	8.4 (44)	4.9 (61)	7.1 (64)	0.3 (37)	4.9 (80)
5th Percentile	4.2	4.2	13.5	14.4	7.9	10.0	6.1	9.1	1.9	8.6
1st Quartile	3.9	3.9	12.2	13.2	7.2	9.0	5.5	8.1	0.7	6.9
Median	3.5	3.5	11.5	12.0	6.6	8.2	5.0	7.5	0.0	6.1
3rd Quartile	3.3	3.3	10.4	10.7	6.0	7.4	4.6	6.6	-1.1	5.0
95th Percentile	2.6	2.6	7.4	6.3	3.3	5.2	3.9	2.8	-2.2	4.2
Population	104	104	99	95	90	90	82	110	96	80

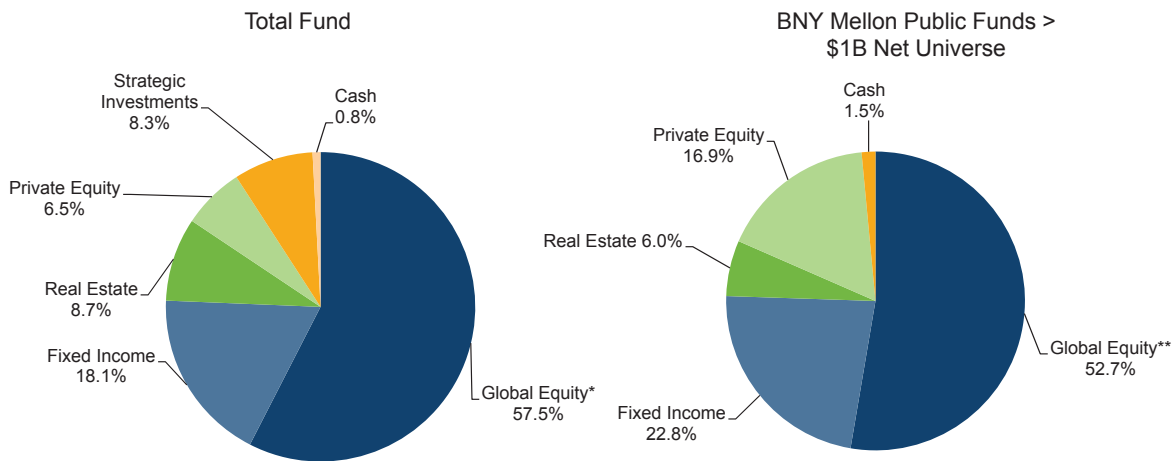
Parentheses contain percentile rankings.



Total Fund

As of September 30, 2017

Universe Asset Allocation Comparison



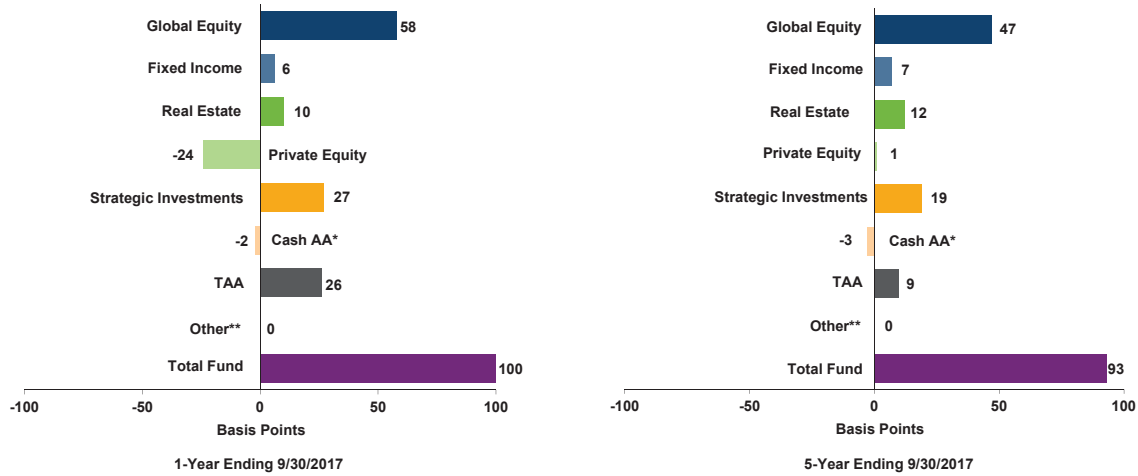
\*Global Equity Allocation: 26.4% Domestic Equities; 25.2% Foreign Equities; 5.6% Global Equities; 0.4% Global Equity Liquidity Account. Percentages are of the Total FRS Fund.

\*\*Global Equity Allocation: 29.6% Domestic Equities; 23.1% Foreign Equities.





Attribution



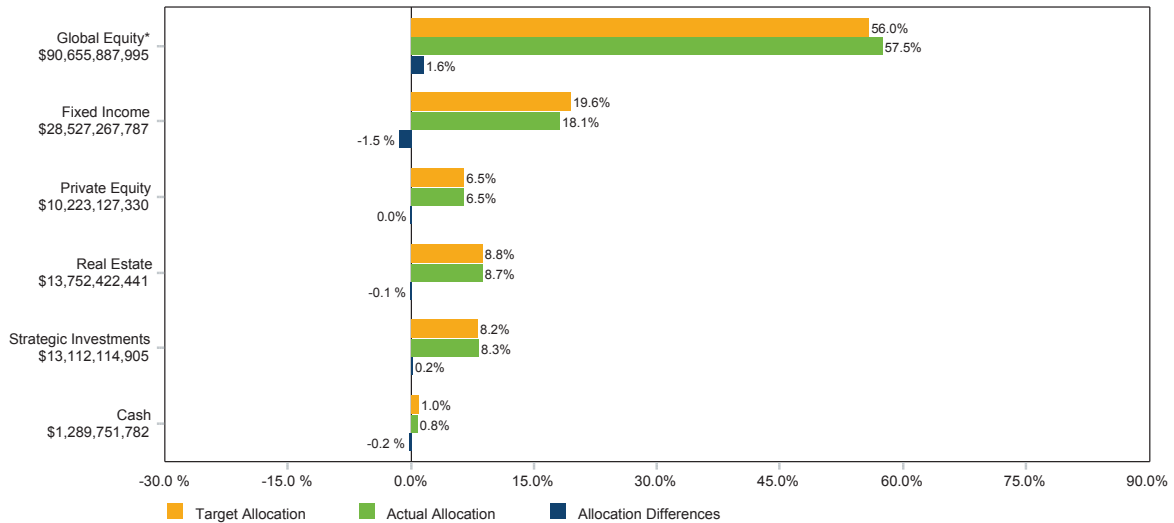
\*Cash AA includes Cash and Central Custody, Securities Lending Account income from 12/2009 to 3/2013 and unrealized gains and losses on securities lending collateral beginning June 2013, TF STIPFRS NAV Adjustment Account, and the Cash Expense Account.

\*\*Other includes legacy accounts and unexplained differences due to methodology.



Asset Allocation Compliance

	Market Value (\$)	Current Allocation (%)	Target Allocation (%)	Minimum Allocation (%)	Maximum Allocation (%)
Total Fund	157,560,572,240	100.0	100.0		
Global Equity*	90,655,887,995	57.5	56.0	45.0	70.0
Fixed Income	28,527,267,787	18.1	19.6	10.0	26.0
Private Equity	10,223,127,330	6.5	6.5	2.0	9.0
Real Estate	13,752,422,441	8.7	8.8	4.0	16.0
Strategic Investments	13,112,114,905	8.3	8.2	0.0	16.0
Cash	1,289,751,782	0.8	1.0	0.3	5.0



\* Global Equity became an asset class in July 2010. The historical return series prior to July 2010 was derived from the underlying Domestic Equities, Foreign Equities, and Global Equities components.



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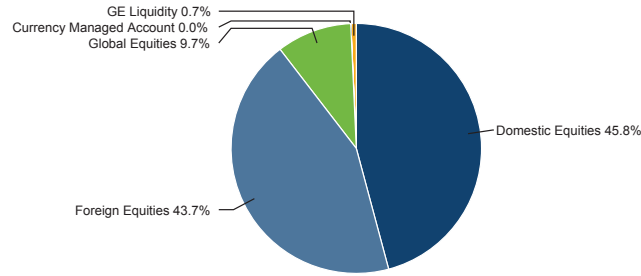
## Global Equity

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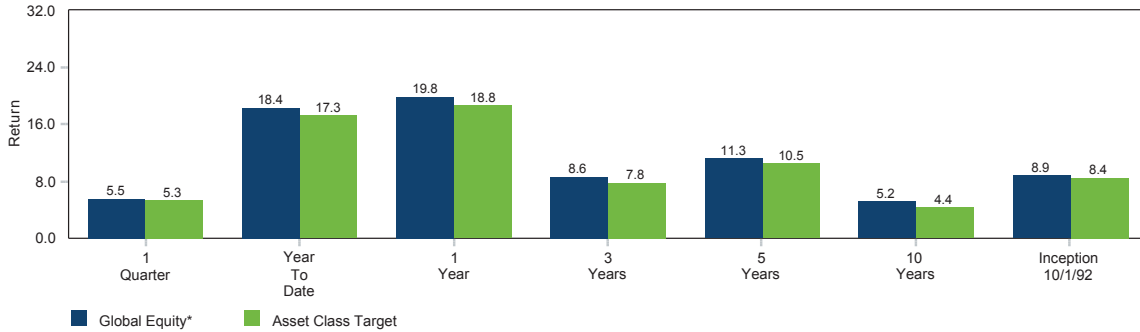
Global Equity\* Portfolio Overview

Current Allocation

September 30, 2017 : \$90,656M



Return Summary



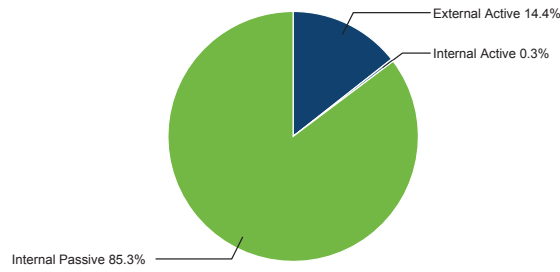
\* Global Equity became an asset class in July 2010. The historical return series prior to July 2010 was derived from the underlying Domestic Equities, Foreign Equities, and Global Equities components.



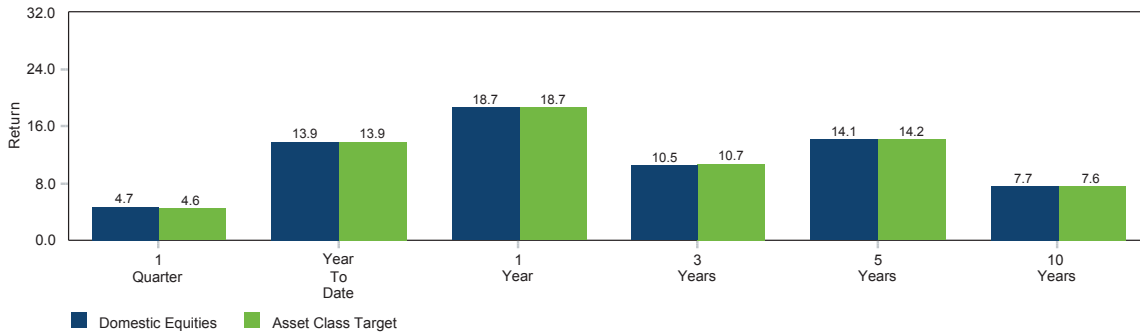
Domestic Equities

Domestic Equities Portfolio Overview

Current Allocation  
September 30, 2017 : \$41,566M

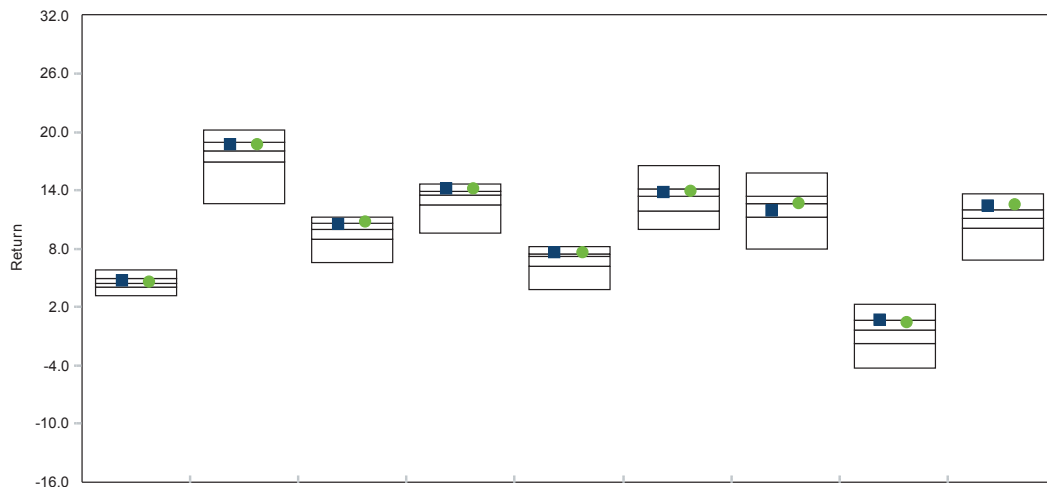


Return Summary



Plan Sponsor Peer Group Analysis

All Public Plans > \$1B-US Equity Segment



	1 Quarter	1 Year	3 Years	5 Years	10 Years	Year To Date	2016	2015	2014
■ Domestic Equities	4.7 (42)	18.7 (33)	10.5 (34)	14.1 (19)	7.7 (17)	13.9 (33)	11.9 (64)	0.6 (27)	12.4 (18)
● Asset Class Target	4.6 (49)	18.7 (33)	10.7 (20)	14.2 (15)	7.6 (20)	13.9 (31)	12.7 (47)	0.5 (30)	12.6 (18)
5th Percentile	5.8	20.2	11.3	14.7	8.2	16.6	15.9	2.4	13.6
1st Quartile	4.9	19.0	10.6	13.9	7.5	14.2	13.4	0.7	12.0
Median	4.5	18.1	10.0	13.6	7.2	13.4	12.6	-0.4	11.1
3rd Quartile	4.1	17.0	9.0	12.5	6.2	11.9	11.3	-1.7	10.1
95th Percentile	3.3	12.7	6.6	9.6	3.8	10.0	8.1	-4.3	6.8
Population	76	67	62	55	34	71	63	56	39

Parentheses contain percentile rankings.

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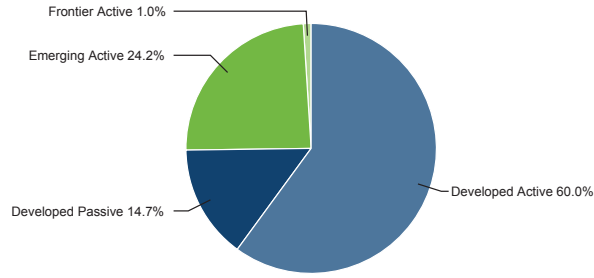
## Foreign Equities

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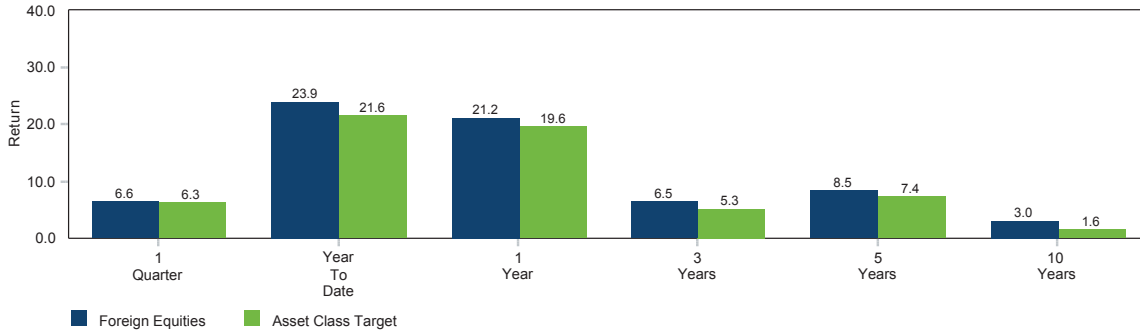
Foreign Equities Portfolio Overview

Current Allocation

September 30, 2017 : \$39,660M

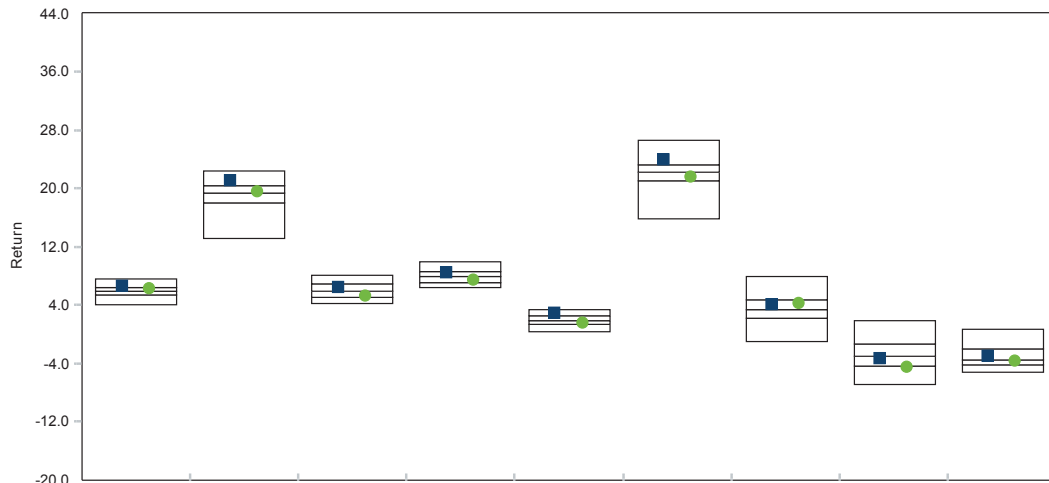


Return Summary



Plan Sponsor Peer Group Analysis

All Public Plans > \$1B-Intl. Equity Segment



	1 Quarter	1 Year	3 Years	5 Years	10 Years	Year To Date	2016	2015	2014
■ Foreign Equities	6.6 (23)	21.2 (17)	6.5 (32)	8.5 (37)	3.0 (9)	23.9 (17)	4.1 (38)	-3.4 (54)	-3.0 (39)
● Asset Class Target	6.3 (34)	19.6 (45)	5.3 (73)	7.4 (68)	1.6 (66)	21.6 (64)	4.3 (34)	-4.5 (77)	-3.7 (68)
5th Percentile	7.6	22.4	8.1	10.0	3.5	26.6	7.9	1.9	0.7
1st Quartile	6.5	20.4	6.9	8.7	2.5	23.3	4.7	-1.4	-1.9
Median	6.0	19.4	5.9	8.0	1.9	22.2	3.4	-3.0	-3.4
3rd Quartile	5.5	18.1	5.1	7.2	1.5	21.1	2.3	-4.4	-4.1
95th Percentile	4.2	13.2	4.2	6.4	0.5	16.0	-0.9	-6.8	-5.2
Population	74	68	59	53	33	71	63	53	38

Parentheses contain percentile rankings.

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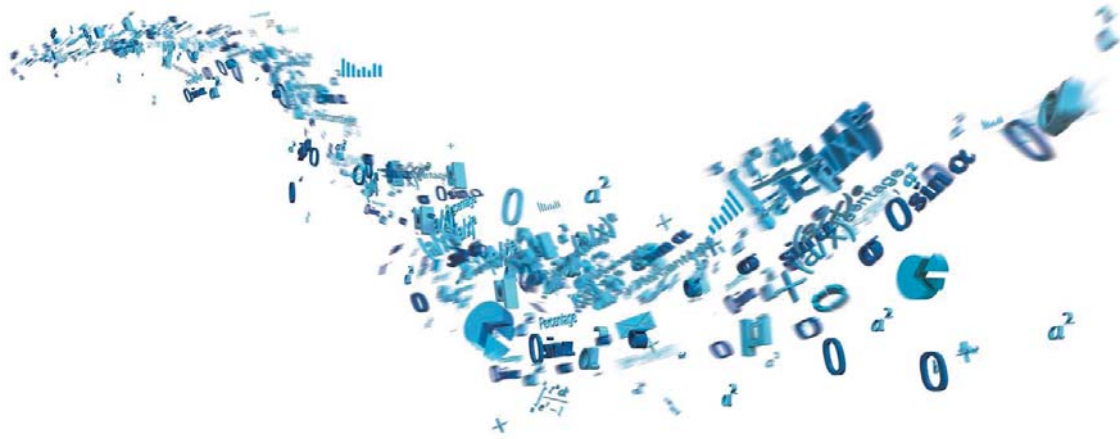
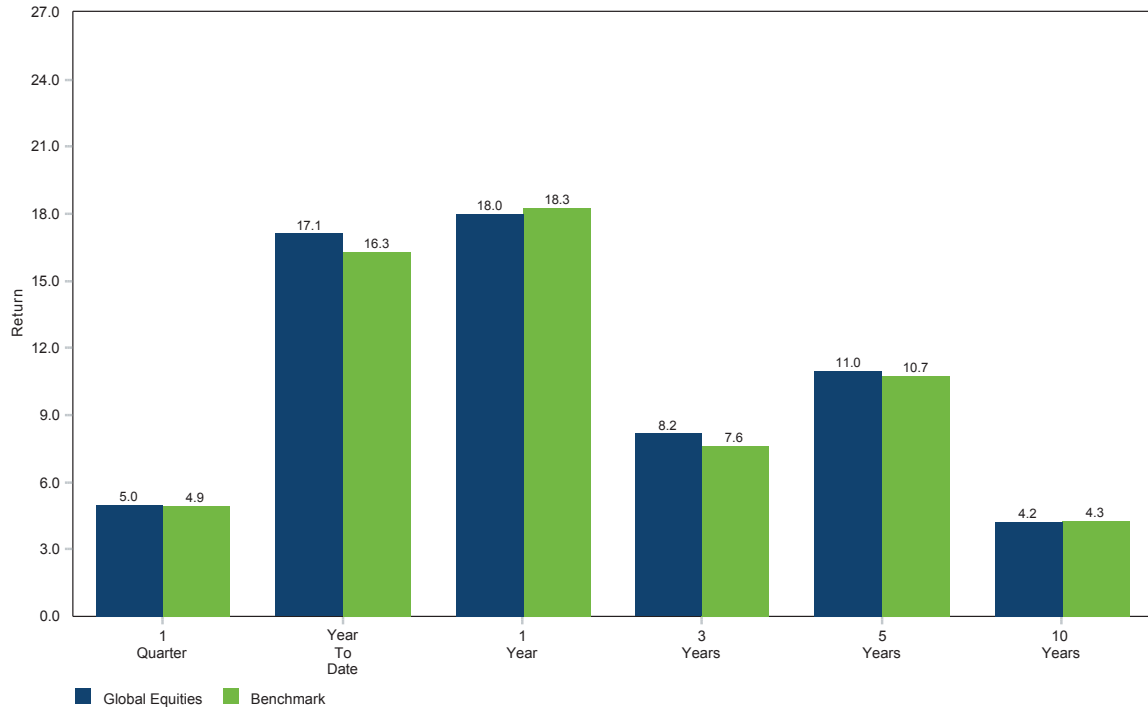


## Global Equities

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Global Equities Performance Summary

Return Summary



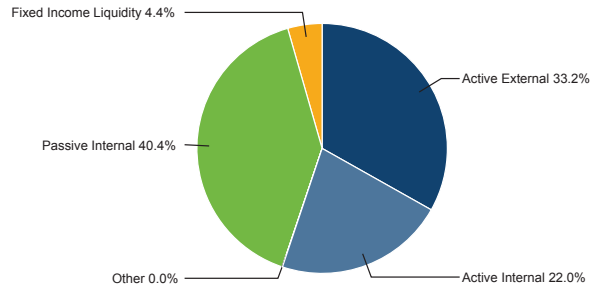
Fixed Income



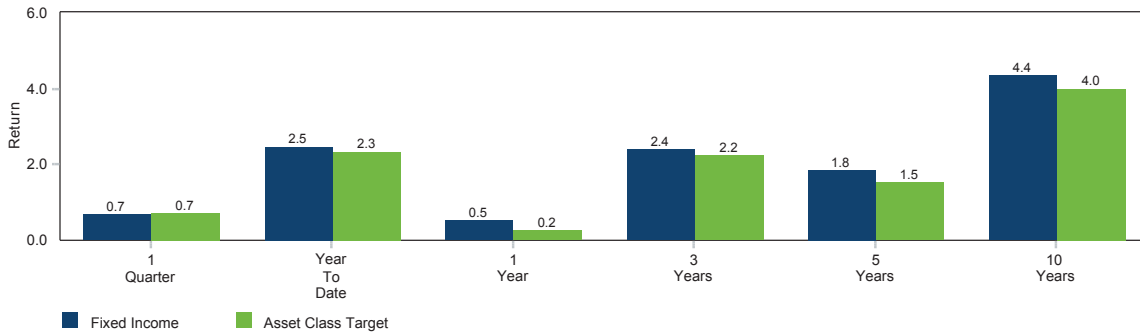
Fixed Income Portfolio Overview

Current Allocation

September 30, 2017 : \$28,527M

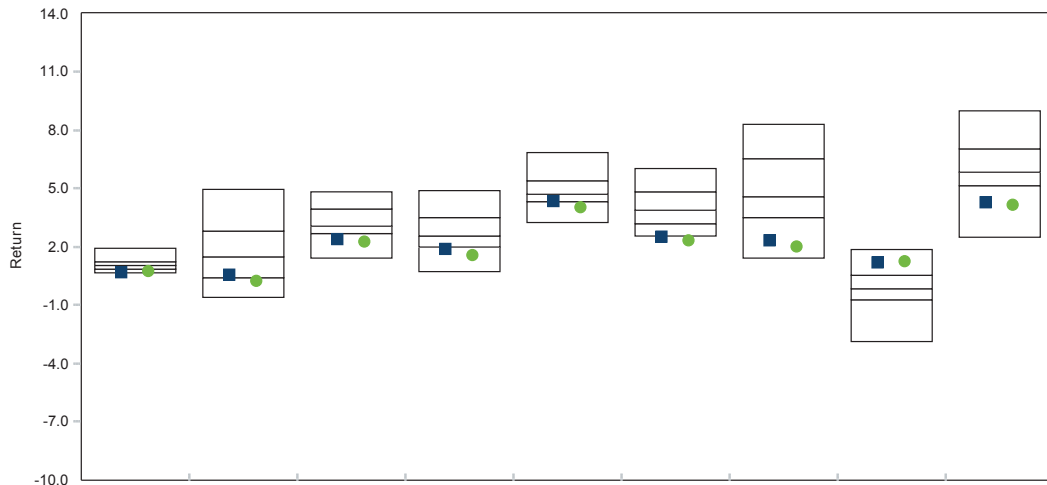


Return Summary



Plan Sponsor Peer Group Analysis

All Public Plans > \$1B-US Fixed Income Segment

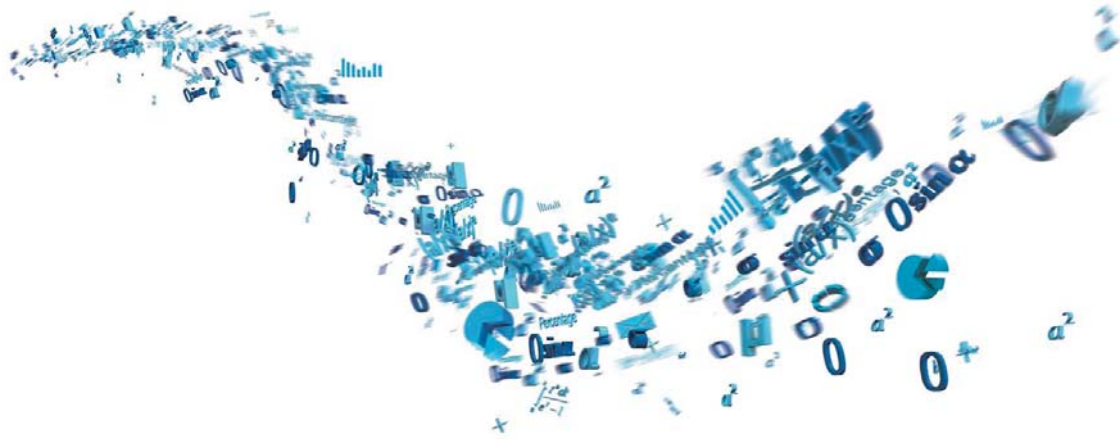


	1 Quarter	1 Year	3 Years	5 Years	10 Years	Year To Date	2016	2015	2014
■ Fixed Income	0.7 (93)	0.5 (74)	2.4 (84)	1.8 (82)	4.4 (75)	2.5 (96)	2.3 (89)	1.2 (9)	4.3 (86)
● Asset Class Target	0.7 (92)	0.2 (81)	2.2 (88)	1.5 (91)	4.0 (84)	2.3 (97)	2.0 (93)	1.2 (9)	4.1 (87)
5th Percentile	1.9	5.0	4.9	4.9	6.9	6.0	8.3	1.9	9.0
1st Quartile	1.3	2.8	4.0	3.5	5.4	4.8	6.5	0.5	7.1
Median	1.1	1.5	3.0	2.6	4.7	3.9	4.6	-0.1	5.9
3rd Quartile	0.9	0.4	2.7	2.0	4.4	3.2	3.5	-0.7	5.2
95th Percentile	0.7	-0.6	1.4	0.8	3.3	2.6	1.4	-2.9	2.5
Population	70	65	61	56	37	67	65	53	39

Parentheses contain percentile rankings.



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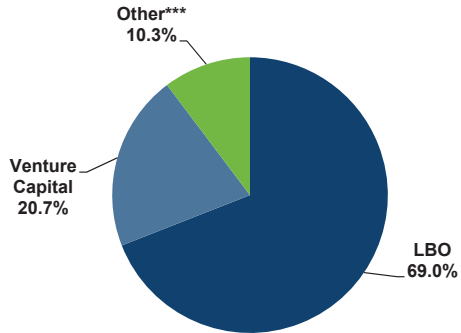


## Private Equity

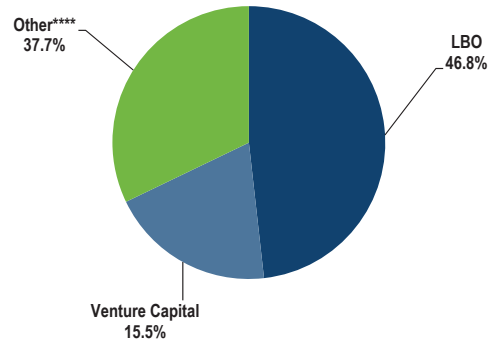
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Overview

FRS Private Equity by Market Value\*



Preqin Private Equity Strategies by Market Value\*\*



\*Allocation data is as of September 30, 2017.

\*\*Allocation data is as of June 30, 2015, from the Preqin database.

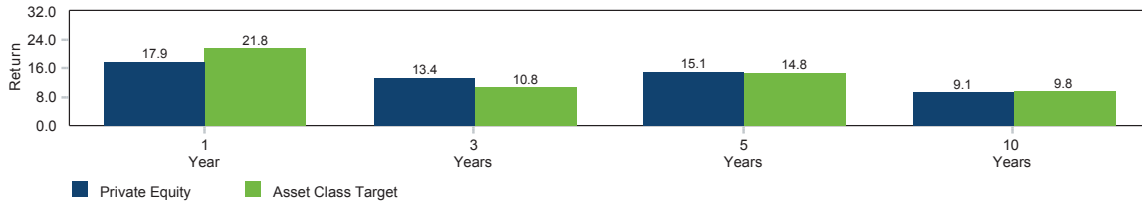
\*\*\*Other for the FRS Private Equity consists of Growth Capital, Secondary, PE Cash, and PE Transition.

\*\*\*\*Other for the Preqin data consists of Distressed PE, Growth, Mezzanine, and other Private Equity/Special Situations.

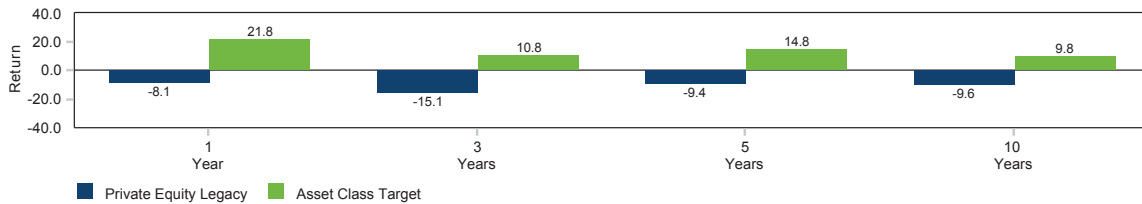
Preqin universe is comprised of 10,000 private equity funds representing \$3.8 trillion.

Time-Weighted Investment Results

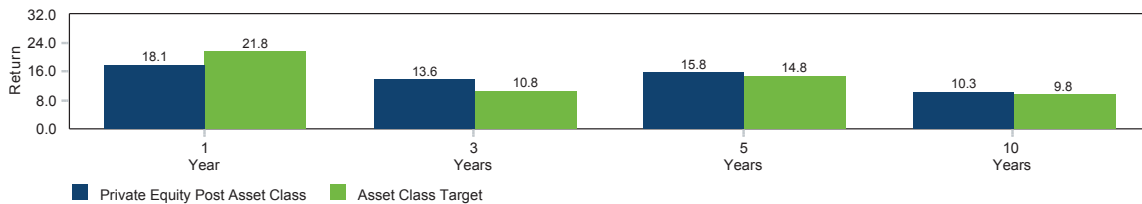
Private Equity Return Summary as of September 30, 2017



Private Equity Legacy Return Summary as of September 30, 2017



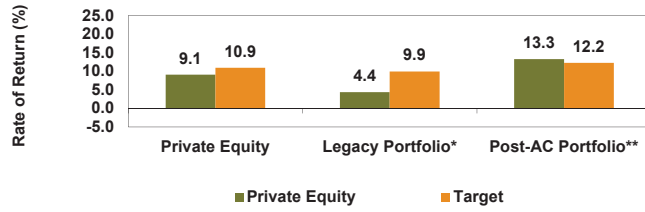
Private Equity Post Asset Class Return Summary as of September 30, 2017



Dollar-Weighted Investment Results

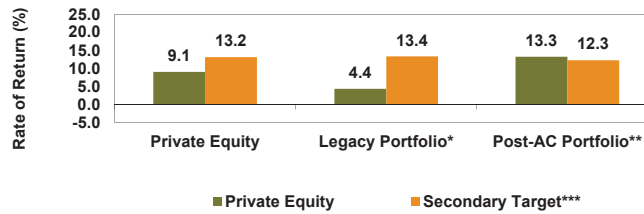
As of September 30, 2017

Since Inception



As of September 30, 2017

Since Inception



\*The Inception Date for the Legacy Portfolio is January 1989.

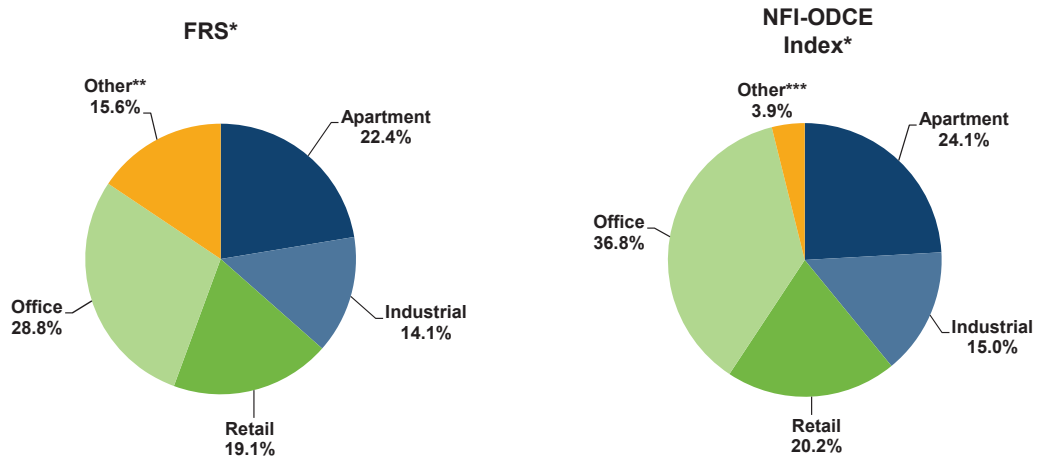
\*\*The Inception Date for the Post-AC Portfolio is September 2000.

\*\*\*The Secondary Target is a blend of the Cambridge Associates Private Equity Index and the Cambridge Associates Venture Capital Index based on actual ABAL weights. Secondary Target data is on a quarterly lag.



Real Estate

Overview

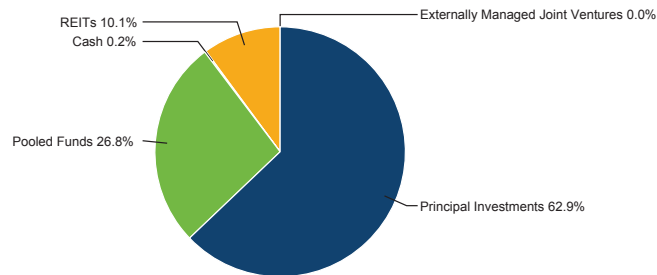


\*Property Allocation data is as of June 30, 2017. The FRS chart includes only the FRS private real estate assets. Property type information for the REIT portfolios is not included.  
 \*\*Other for the FRS consists of Hotel, Land, Preferred Equity, Agriculture, Self-Storage and Senior Housing.  
 \*\*\*Other for the NFI-ODCE Index consists of Hotel, Senior Living, Health Care, Mixed Use, Single Family Residential, Parking, Timber/Agriculture, Land and Infrastructure.

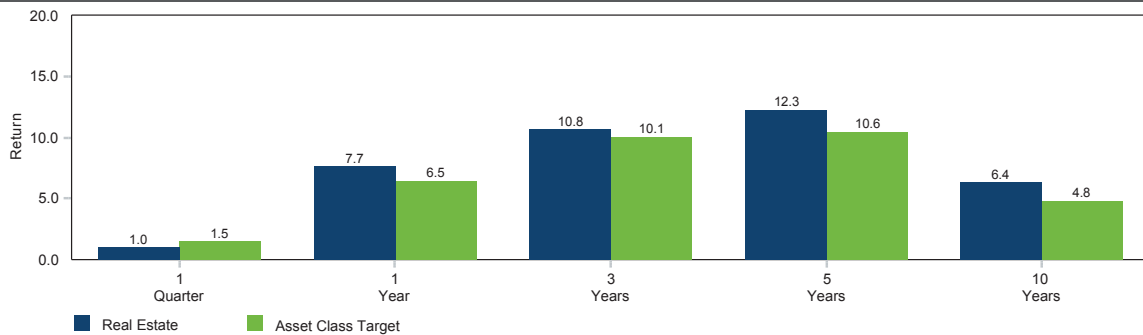
Real Estate Portfolio Overview

Current Allocation

September 30, 2017 : \$13,752M

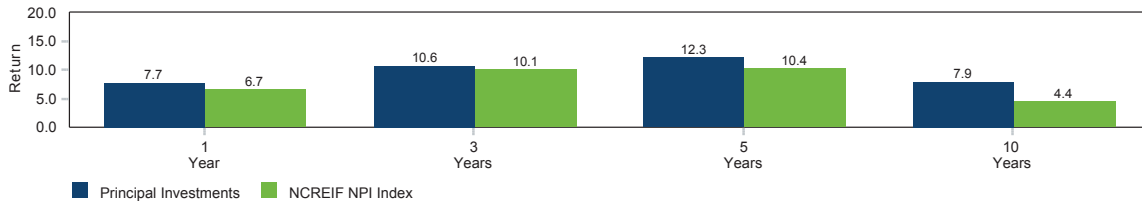


Return Summary

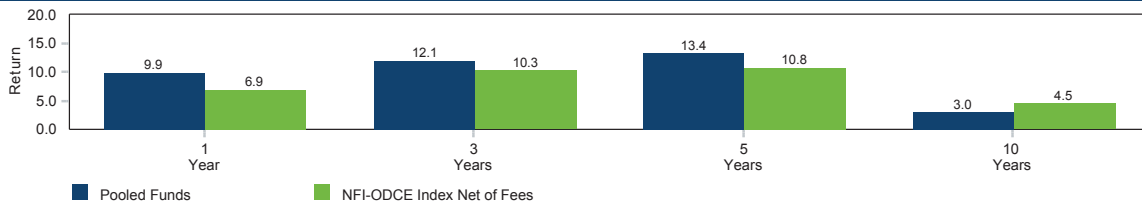


## Real Estate

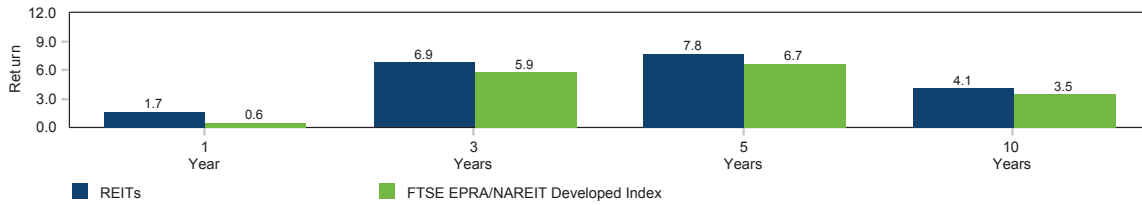
Principal Investments Return Summary as of September 30, 2017



Pooled Funds Return Summary as of September 30, 2017



REITs Return Summary as of September 30, 2017



50

**AON**  
Empower Results®



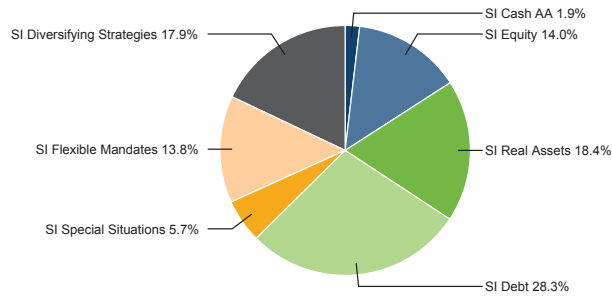
## Strategic Investments

51

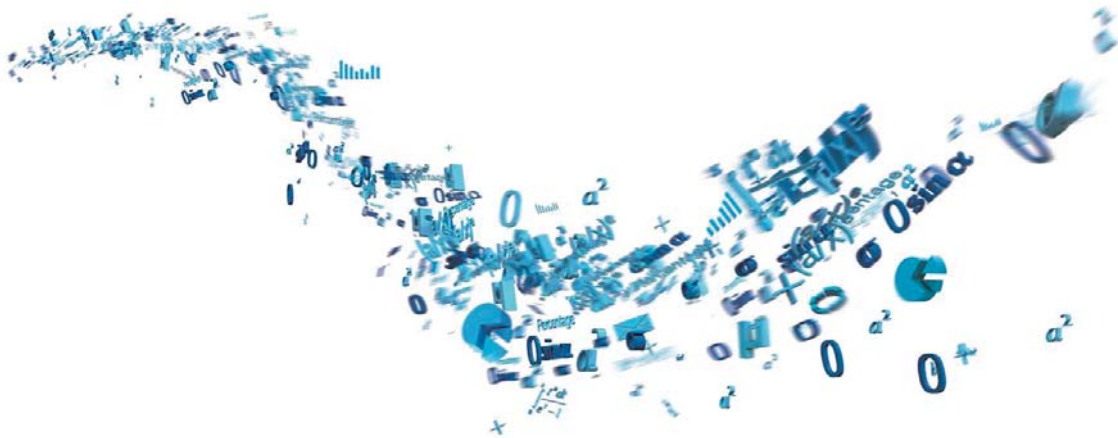
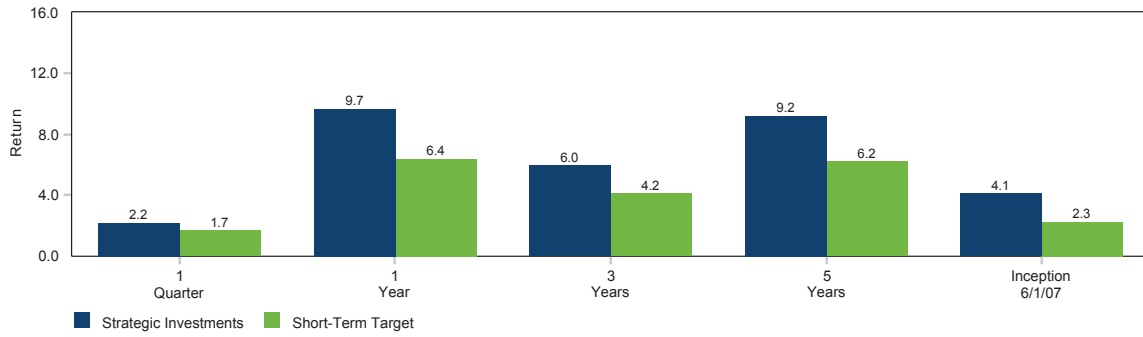
**AON**  
Empower Results®

Strategic Investments Portfolio Overview

Current Allocation  
September 30, 2017 : \$13,112M



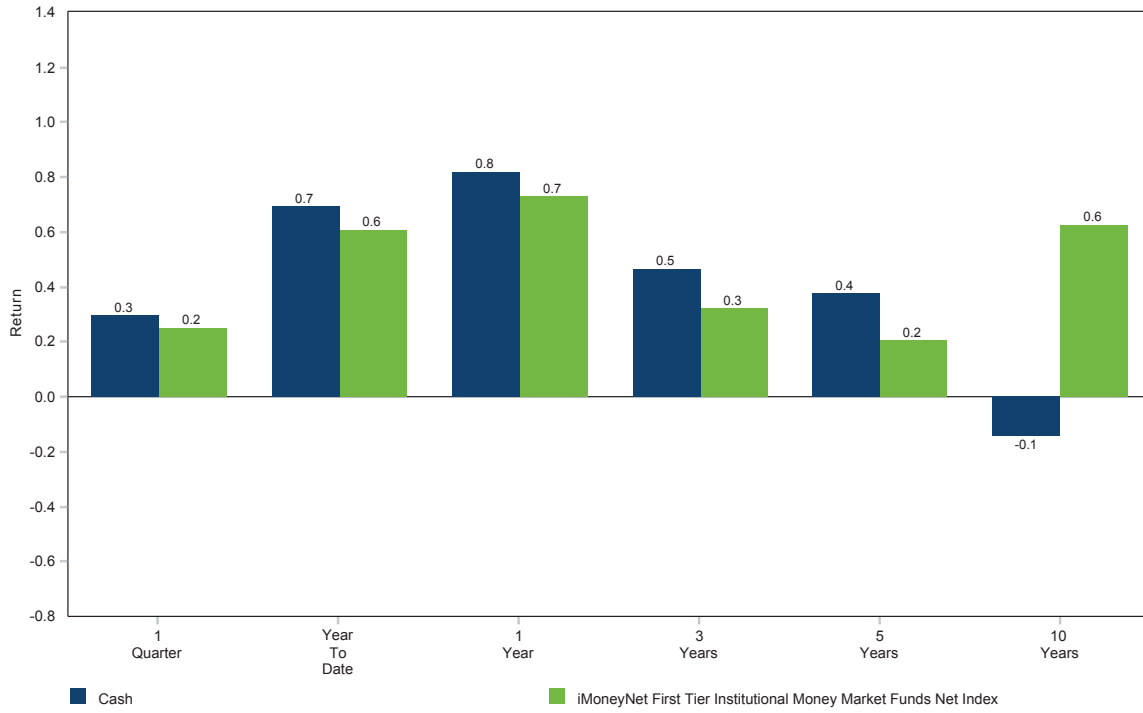
Return Summary



Cash

### Cash Performance Summary

#### Return Summary



## Appendix



## Appendix

## Total FRS Assets

**Performance Benchmark** - A combination of the Global Equity Target, the Barclays Capital U.S. Intermediate Aggregate Index, the Private Equity Target Index, the Real Estate Investments Target Index, the Strategic Investments Target Benchmark, and the iMoneyNet First Tier Institutional Money Market Funds Net Index. The short-term target policy allocations to the Strategic Investments, Real Estate and Private Equity asset classes are floating and based on the actual average monthly balance of the Global Equity asset class. Please refer to section VII. Performance Measurement in the FRS Defined Benefit Plan Investment Policy Statement for more details on the calculation of the Performance Benchmark. Prior to October 1, 2013, the Performance benchmark was a combination of the Global Equity Target, the Barclays Aggregate Bond Index, the Private Equity Target Index, the Real Estate Investments Target Index, the Strategic Investments Target Benchmark, and the iMoneyNet First Tier Institutional Money Market Funds Net Index. The short-term target policy allocations to the Strategic Investments, Real Estate and Private Equity asset classes are floating and based on the actual average monthly balance of the Global Equity asset class. Prior to July 2010, the Performance Benchmark was a combination of the Russell 3000 Index, the Foreign Equity Target Index, the Strategic Investments Target Benchmark, the Barclays Aggregate Bond Index, the Real Estate Investments Target Index, the Private Equity Target Index, the Barclays U.S. High Yield Ba/B 2% Issuer Capped Index, and the iMoneyNet First Tier Institutional Money Market Funds Gross Index. During this time, the short-term target policy allocations to Strategic Investments, Real Estate and Private Equity asset classes were floating and based on the actual average monthly balance of the Strategic Investments, Real Estate and Private Equity asset classes. The target weights shown for Real Estate and Private Equity were the allocations that the asset classes were centered around. The actual target weight floated around this target month to month based on changes in asset values.

## Total Global Equity

**Performance Benchmark** - A custom version of the MSCI All Country World Investable Market Index, adjusted to exclude companies divested under the provisions of the Protecting Florida's Investments Act (PFIA). Prior to July 2010, the asset class benchmark is a weighted average of the underlying Domestic Equities, Foreign Equities and Global Equities historical benchmarks.

## Total Domestic Equities

**Performance Benchmark** - The Russell 3000 Index. Prior to July 1, 2002, the benchmark was the Wilshire 2500 Stock Index. Prior to January 1, 2001, the benchmark was the Wilshire 2500 Stock Index ex-Tobacco. Prior to May 1, 1997, the benchmark was the Wilshire 2500 Stock Index. Prior to September 1, 1994, the benchmark was the S&P 500 Stock Index.

## Total Foreign Equities

**Performance Benchmark** - A custom version of the MSCI ACWI ex-U.S. Investable Market Index adjusted to exclude companies divested under the PFIA. Prior to April 1, 2008, it was the MSCI All Country World Index ex-U.S. Investable Market Index. Prior to September 24, 2007, the target was the MSCI All Country World ex-U.S. Free Index. Prior to November 1, 1999, the benchmark was 85% MSCI Europe, Australasia and Far East (EAFE) Foreign Stock Index and 15% IFCI Emerging Markets Index with a half weight in Malaysia. Prior to March 31, 1995, the benchmark was the EAFE Index.

## Total Global Equities

**Performance Benchmark** - Aggregated based on each underlying manager's individual benchmark. The calculation accounts for the actual weight and the benchmark return. The benchmarks used for the underlying managers include both the MSCI FSB All Country World ex-Sudan ex-Iran Net Index and MSCI FSB All Country World ex-Sudan ex-Iran Net Investable Market Index (IMI).

## Appendix

## Total Fixed Income

**Performance Benchmark** - The Barclays Capital U.S. Intermediate Aggregate Index. Prior to October 1, 2013, it was the Barclays U.S. Aggregate Bond Index. Prior to June 1, 2007, it was the Fixed Income Management Aggregate (FIMA). Prior to July 1, 1999, the benchmark was the Florida High Yield Extended Duration Index. Prior to July 31, 1997, the benchmark was the Florida Extended Duration Index. Prior to July 1, 1989, the Salomon Brothers Broad Investment-Grade Bond Index was the benchmark. For calendar year 1985, the performance benchmark was 70% Shearson Lehman Extended Duration and 30% Salomon Brothers Mortgage Index.

## Total Private Equity

**Performance Benchmark** - The MSCI All Country World Investable Market Index (ACWI IMI), adjusted to reflect the provisions of the Protecting Florida's Investments Act, plus a fixed premium return of 300 basis points per annum. Prior to July 1, 2014, the benchmark was the domestic equities target index return (Russell 3000 Index) plus a fixed premium return of 300 basis points per annum. Prior to July 1, 2010, it was the domestic equities target index return plus a fixed premium return of 450 basis points per annum. Prior to November 1, 1999, Private Equities was part of the Domestic Equities asset class and its benchmark was the domestic equities target index return plus 750 basis points.

## Total Real Estate

**Performance Benchmark** - The core portion of the asset class is benchmarked to an average of the National Council of Real Estate Investment Fiduciaries (NCREIF) Fund Index- Open-ended Diversified Core Equity, net of fees, weighted at 76.5%, and the non-core portion of the asset class is benchmarked to an average of the National Council of Real Estate Investment Fiduciaries (NCREIF) Fund Index- Open-ended Diversified Core Equity, net of fees, weighted at 13.5%, plus a fixed return premium of 150 basis points per annum, and the FTSE EPRA/NAREIT Developed Index, in dollar terms, net of withholding taxes on non-resident institutional investors, weighted at 10%. Prior to July 1, 2014, the benchmark was a combination of 90% NCREIF ODCE Index, net of fees, and 10% FTSE EPRA/NAREIT Developed Index, net of fees. Prior to July 1, 2010, it was a combination of 90% NCREIF ODCE Index, gross of fees, and 10% Dow Jones U.S. Select RESI. Prior to June 1, 2007, it was the Consumer Price Index plus 450 basis points annually. Prior to July 1, 2003, the benchmark was the Dow Jones U.S. Select Real Estate Securities Index Un-Levered. Prior to November 1, 1999, the benchmark was the Russell-NCREIF Property Index.

## Total Strategic Investments

**Performance Benchmark** - Long-term, 5% plus the contemporaneous rate of inflation or CPI. Short-term, a weighted aggregation of individual portfolio level benchmarks.

## Total Cash

**Performance Benchmark** - The iMoneyNet First Tier Institutional Money Market Funds Net Index. Prior to July 1, 2010, it was the iMoneyNet First Tier Institutional Money Market Funds Gross Index. Prior to June 1, 2007, it was the return of the Merrill Lynch 90-Day (Auction Average) Treasury Bill Yield Index.

## Description of Benchmarks

Barclays Capital U.S. Intermediate Aggregate Bond Index - A market value-weighted index consisting of U.S. Treasury securities, corporate bonds and mortgage-related and asset-backed securities with one to ten years to maturity and an outstanding par value of \$250 million or greater.

Consumer Price Index (CPI) - The CPI, an index consisting of a fixed basket of goods bought by the typical consumer and used to measure consumer inflation.

FTSE EPRA/NAREIT Developed Index - An index designed to represent general trends in eligible real estate equities worldwide. Relevant real estate activities are defined as the ownership, disposal and development of income-producing real estate. This index covers the four primary core asset classes (Industrial, Retail, Office, and Apartment).

iMoneyNet First Tier Institutional Money Market Funds Net Index - An average of non-governmental institutional funds that do not hold any second tier securities. It includes money market mutual funds, net of fees, that invest in commercial paper, bank obligations and short-term investments in the highest ratings category and is open to corporations and fiduciaries only.

MSCI All Country World Investable Market Index - A free float-adjusted market capitalization-weighted index that is designed to measure the equity market performance of developed and emerging markets. This investable market index contains constituents from the large, mid, and small cap size segments and targets a coverage range around 99% of free-float adjusted market capitalization.

NCREIF ODCE Property Index - The NCREIF ODCE is a capitalization-weighted, gross of fee, time-weighted return index. The index is a summation of open-end funds, which NCREIF defines as infinite-life vehicles consisting of multiple investors who have the ability to enter or exit the fund on a periodic basis, subject to contribution and/or redemption requests.

Russell 3000 Index - A capitalization-weighted stock index consisting of the 3,000 largest publicly traded U.S. stocks by capitalization. This represents most publicly traded, liquid U.S. stocks.

## Description of Universes

Total Fund - A universe comprised of 77 total fund portfolio returns, net of fees, of public defined benefit plans calculated and provided by BNY Mellon Performance & Risk Analytics and Investment Metrics. Aggregate assets in the universe comprised \$1.4 trillion as of quarter-end and the average market value was \$17.6 billion.

Domestic Equity - A universe comprised of 74 total domestic equity portfolio returns, net of fees, of public defined benefit plans calculated and provided by BNY Mellon Performance & Risk Analytics. Aggregate assets in the universe comprised \$341.7 billion as of quarter-end and the average market value was \$4.3 billion.

Foreign Equity - A universe comprised of 77 total international equity portfolio returns, net of fees, of public defined benefit plans calculated and provided by BNY Mellon Performance & Risk Analytics. Aggregate assets in the universe comprised \$287.0 billion as of quarter-end and the average market value was \$3.6 billion.

Fixed Income - A universe comprised of 74 total fixed income portfolio returns, net of fees, of public defined benefit plans calculated and provided by BNY Mellon Performance & Risk Analytics. Aggregate assets in the universe comprised \$295.8 billion as of quarter-end and the average market value was \$3.7 billion.

Real Estate - A universe comprised of 58 total real estate portfolio returns, net of fees, of public defined benefit plans calculated and provided by BNY Mellon Performance & Risk Analytics. Aggregate assets in the universe comprised \$81.5 billion as of quarter-end and the average market value was \$1.0 billion.

Private Equity - An appropriate universe for private equity is unavailable.

Strategic Investments - An appropriate universe for strategic investments is unavailable.

## Appendix

### Explanation of Exhibits

Quarterly and Cumulative Excess Performance - The vertical axis, excess return, is a measure of fund performance less the return of the primary benchmark. The horizontal axis represents the time series. The quarterly bars represent the underlying funds' relative performance for the quarter.

Ratio of Cumulative Wealth Graph - An illustration of a portfolio's cumulative, un-annualized performance relative to that of its benchmark. An upward-sloping line indicates superior fund performance versus its benchmark. Conversely, a downward-sloping line indicates underperformance by the fund. A flat line is indicative of benchmark-like performance.

Performance Comparison - Plan Sponsor Peer Group Analysis - An illustration of the distribution of returns for a particular asset class. The component's return is indicated by the circle and its performance benchmark by the triangle. The top and bottom borders represent the 5th and 95th percentiles, respectively. The solid line indicates the median while the dotted lines represent the 25th and 75th percentiles.

## Notes

- The rates of return contained in this report are shown on an after-fees basis unless otherwise noted. They are geometric and time-weighted. Returns for periods longer than one year are annualized.
- Universe percentiles are based upon an ordering system in which 1 is the best ranking and 100 is the worst ranking.
- Due to rounding throughout the report, percentage totals displayed may not sum to 100%. Additionally, individual fund totals in dollar terms may not sum to the plan total.

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FRS Investment Plan | Third Quarter 2017

## Quarterly Investment Review

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## FRS Investment Plan

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As of September 30, 2017

**Asset Allocation & Performance**

	Allocation		Performance(%)					
	Market Value (\$)	%	1 Quarter	Year To Date	1 Year	3 Years	5 Years	10 Years
FRS Investment Plan	10,338,430,190	100.0	3.9	11.8	13.3	6.9	8.0	4.8
Total Plan Aggregate Benchmark			3.7	10.9	12.6	6.6	7.6	4.4
<b>Retirement Date</b>	<b>4,529,151,129</b>	<b>43.8</b>						
FRS Retirement Fund	392,503,114	3.8	2.7 (39)	8.0 (55)	7.0 (68)	4.0 (71)	4.1 (91)	-
Retirement Custom Index			2.7 (39)	7.6 (58)	6.7 (70)	4.2 (68)	4.0 (91)	-
FRS 2015 Retirement Date Fund	341,989,242	3.3	2.9 (24)	8.9 (50)	8.3 (67)	4.5 (86)	4.8 (93)	-
2015 Retirement Custom Index			2.8 (41)	8.3 (80)	7.6 (76)	4.6 (85)	4.7 (95)	-
FRS 2020 Retirement Date Fund	597,065,018	5.8	3.3 (17)	10.5 (24)	10.3 (31)	5.4 (59)	6.2 (59)	-
2020 Retirement Custom Index			3.2 (28)	9.9 (50)	9.7 (48)	5.3 (61)	6.1 (62)	-
FRS 2025 Retirement Date Fund	685,119,019	6.6	3.7 (15)	12.0 (32)	12.3 (26)	6.3 (46)	7.6 (56)	-
2025 Retirement Custom Index			3.6 (27)	11.4 (46)	11.7 (45)	6.0 (63)	7.4 (58)	-
FRS 2030 Retirement Date Fund	607,524,997	5.9	4.1 (19)	13.2 (29)	13.9 (33)	7.0 (37)	9.0 (47)	-
2030 Retirement Custom Index			4.0 (26)	12.7 (50)	13.4 (44)	6.6 (59)	8.7 (52)	-
FRS 2035 Retirement Date Fund	562,716,413	5.4	4.5 (20)	14.5 (29)	15.8 (26)	7.5 (45)	10.1 (31)	-
2035 Retirement Custom Index			4.3 (38)	13.9 (53)	14.8 (47)	7.0 (67)	9.7 (47)	-
FRS 2040 Retirement Date Fund	494,753,324	4.8	4.7 (20)	15.3 (27)	16.7 (27)	7.7 (48)	10.3 (45)	-
2040 Retirement Custom Index			4.6 (24)	14.9 (42)	16.1 (45)	7.4 (68)	10.0 (50)	-
FRS 2045 Retirement Date Fund	478,803,247	4.6	4.8 (25)	15.6 (38)	17.1 (29)	7.9 (56)	10.4 (40)	-
2045 Retirement Custom Index			4.8 (26)	15.4 (42)	16.8 (35)	7.6 (68)	10.1 (55)	-
FRS 2050 Retirement Date Fund	261,275,085	2.5	4.9 (22)	15.7 (40)	17.2 (33)	8.0 (57)	10.4 (51)	-
2050 Retirement Custom Index			4.8 (24)	15.4 (43)	16.8 (53)	7.6 (73)	10.1 (61)	-
FRS 2055 Retirement Date Fund	105,281,323	1.0	4.9 (30)	15.7 (47)	17.1 (51)	7.9 (70)	10.4 (56)	-
2055 Retirement Custom Index			4.8 (32)	15.4 (55)	16.8 (66)	7.6 (85)	10.1 (74)	-
FRS 2060 Retirement Date Fund	2,120,346	0.0	4.7 (53)	-	-	-	-	-
2060 Retirement Custom Index			4.8 (32)	-	-	-	-	-



As of September 30, 2017

**Asset Allocation & Performance**

	Allocation		Performance(%)					
	Market Value (\$)	%	1 Quarter	Year To Date	1 Year	3 Years	5 Years	10 Years
Cash	937,618,959	9.1	0.3 (1)	0.9 (1)	1.1 (1)	0.6 (1)	0.4 (1)	0.7 (4)
FRS Money Market Fund	937,618,959	9.1	0.3 (1)	0.9 (1)	1.1 (1)	0.6 (1)	0.4 (1)	0.7 (4)
iMoneyNet 1st Tier Institutional Net Index			0.2 (20)	0.6 (19)	0.7 (19)	0.3 (21)	0.2 (18)	0.6 (10)
<b>Real Assets</b>	<b>91,027,565</b>	<b>0.9</b>						
FRS Inflation Adjusted Multi-Assets Fund	91,027,565	0.9	2.6	5.9	4.5	1.0	-0.7	-
FRS Custom Real Assets Index			2.7	5.1	4.0	2.0	-0.6	-
<b>Fixed Income</b>	<b>664,892,444</b>	<b>6.4</b>						
Total Bond Index			1.0 (5)	3.6 (5)	1.4 (40)	3.1 (2)	2.4 (11)	4.4 (15)
FRS U.S. Bond Enhanced Index Fund	244,257,670	2.4	0.9 (1)	3.2 (33)	0.1 (4)	2.8 (32)	2.2 (17)	4.5 (37)
Bmbg. Barc. U.S. Aggregate			0.8 (2)	3.1 (33)	0.1 (4)	2.7 (33)	2.1 (21)	4.3 (39)
FRS Intermediate Bond Fund	105,604,997	1.0	0.6 (37)	2.6 (14)	0.5 (80)	2.4 (12)	2.0 (29)	3.9 (25)
Bmbg. Barc. U.S. Intermediate Aggregate			0.7 (17)	2.3 (29)	0.2 (91)	2.2 (23)	1.7 (40)	3.8 (31)
FRS Core Plus Bond Fund	315,029,778	3.0	1.2 (30)	4.7 (27)	2.5 (29)	3.9 (18)	3.5 (26)	-
FRS Custom Core-Plus Fixed Income Index			1.1 (54)	3.8 (58)	1.6 (56)	3.3 (42)	3.2 (34)	-
<b>Domestic Equity</b>	<b>2,786,158,307</b>	<b>26.9</b>						
Total U.S. Equities Index			4.6 (45)	12.9 (56)	18.7 (42)	11.0 (19)	14.1 (34)	7.7 (26)
FRS U.S. Stock Market Index Fund	942,965,277	9.1	4.6 (51)	14.0 (55)	18.8 (48)	10.9 (33)	14.3 (30)	7.7 (32)
Russell 3000 Index			4.6 (51)	13.9 (55)	18.7 (49)	10.7 (34)	14.2 (32)	7.6 (35)
FRS U.S. Large Cap Stock Fund	954,957,338	9.2	6.0 (13)	16.8 (26)	22.8 (11)	11.3 (22)	14.9 (19)	-
Russell 1000 Index			4.5 (48)	14.2 (41)	18.5 (46)	10.6 (32)	14.3 (34)	-
FRS U.S. Small/Mid Cap Stock Fund	888,235,692	8.6	4.8 (34)	11.4 (46)	20.0 (28)	12.3 (18)	15.3 (14)	-
FRS Custom Small/Mid Cap Index			4.7 (36)	11.0 (51)	17.8 (53)	11.2 (30)	11.4 (83)	-



As of September 30, 2017

**Asset Allocation & Performance**

	Allocation		Performance(%)						
	Market Value (\$)	%	1 Quarter	Year To Date	1 Year	3 Years	5 Years	10 Years	
International/Global Equity	781,130,958	7.6	6.2 (50)	22.4 (55)	20.1 (46)	6.4 (37)	9.3 (29)	3.0 (26)	
Total Foreign and Global Equities Index			6.1 (52)	20.9 (66)	19.5 (51)	5.5 (51)	8.4 (39)	1.9 (45)	
FRS Foreign Stock Index Fund	312,664,993	3.0	6.3 (49)	21.9 (59)	19.9 (48)	5.5 (51)	8.5 (38)	1.8 (45)	
MSCI All Country World ex-U.S. IMI Index			6.3 (50)	21.5 (61)	19.6 (51)	5.2 (56)	8.2 (43)	1.5 (54)	
FRS Global Stock Fund	278,469,830	2.7	5.5 (38)	23.5 (15)	21.2 (22)	10.7 (13)	12.8 (22)	6.7 (16)	
MSCI All Country World Index Net			5.2 (43)	17.3 (46)	18.6 (40)	7.4 (46)	10.2 (54)	3.8 (56)	
FRS Foreign Stock Fund	189,996,136	1.8	6.9 (15)	25.9 (4)	20.6 (24)	7.6 (1)	9.5 (8)	3.7 (5)	
MSCI All Country World ex-U.S. Index			6.2 (33)	21.1 (36)	19.7 (35)	5.0 (35)	7.4 (62)	1.3 (44)	
FRS Self-Dir Brokerage Acct	548,450,827	5.3							

The returns for the Retirement Date Funds, Inflation Adjusted Multi-Assets Fund, Core Plus Bond Fund, U.S. Large Cap Stock Fund, and U.S. Small/Mid Cap Stock Fund use prehire data for all months prior to 7/1/2014, actual live data is used thereafter.

Note: The SDBA opened for members on 1/2/14. No performance calculations will be made for the SDBA.



As of September 30, 2017

**Asset Allocation & Performance**

	Performance(%)									
	2016	2015	2014	2013	2012	2011	2010	2009	2008	
FRS Investment Plan	8.0	-0.9	4.9	15.2	10.5	0.7	10.6	18.4	-23.2	
Total Plan Aggregate Benchmark	8.5	-1.3	4.9	14.6	9.7	0.9	10.2	16.8	-23.4	
<b>Retirement Date</b>										
FRS Retirement Fund	6.2 (48)	-2.6 (100)	4.4 (83)	3.5 (96)	10.7 (56)	3.4 (9)	11.5 (52)	20.0 (82)	-	
Retirement Custom Index	6.2 (48)	-1.8 (95)	3.6 (90)	3.4 (96)	8.5 (74)	5.0 (1)	9.9 (80)	19.1 (84)	-	
FRS 2015 Retirement Date Fund	6.7 (43)	-2.5 (98)	4.4 (78)	5.5 (89)	11.3 (43)	2.1 (20)	11.5 (62)	21.8 (67)	-	
2015 Retirement Custom Index	6.5 (50)	-1.8 (92)	3.7 (92)	5.7 (88)	9.6 (88)	3.2 (1)	10.4 (85)	22.2 (65)	-	
FRS 2020 Retirement Date Fund	7.4 (19)	-2.1 (92)	4.4 (79)	9.6 (75)	12.4 (38)	0.6 (38)	12.2 (64)	24.5 (55)	-	
2020 Retirement Custom Index	7.1 (31)	-1.6 (82)	3.9 (88)	9.7 (75)	11.0 (74)	1.5 (21)	11.2 (86)	24.2 (58)	-	
FRS 2025 Retirement Date Fund	8.0 (14)	-1.7 (80)	4.5 (86)	13.7 (74)	13.5 (43)	-0.7 (35)	12.5 (88)	26.4 (64)	-	
2025 Retirement Custom Index	7.6 (19)	-1.5 (75)	4.2 (91)	13.8 (74)	12.4 (73)	-0.3 (26)	11.8 (93)	26.3 (65)	-	
FRS 2030 Retirement Date Fund	8.5 (17)	-1.3 (60)	4.5 (83)	18.1 (54)	14.6 (34)	-2.1 (50)	13.0 (86)	29.0 (48)	-	
2030 Retirement Custom Index	8.0 (36)	-1.5 (63)	4.4 (83)	18.2 (52)	13.8 (53)	-2.0 (49)	12.5 (91)	29.2 (47)	-	
FRS 2035 Retirement Date Fund	9.1 (18)	-1.4 (46)	4.4 (84)	22.0 (38)	15.8 (23)	-3.0 (46)	13.7 (80)	29.8 (58)	-	
2035 Retirement Custom Index	8.3 (46)	-1.7 (63)	4.3 (85)	22.0 (38)	15.2 (46)	-3.1 (47)	13.3 (89)	30.1 (57)	-	
FRS 2040 Retirement Date Fund	9.2 (19)	-1.4 (52)	4.4 (83)	22.3 (48)	15.8 (36)	-3.0 (38)	13.7 (79)	29.8 (54)	-	
2040 Retirement Custom Index	8.6 (45)	-1.7 (66)	4.3 (84)	22.4 (48)	15.2 (50)	-3.1 (38)	13.3 (85)	30.1 (53)	-	
FRS 2045 Retirement Date Fund	9.4 (20)	-1.5 (48)	4.4 (82)	22.3 (60)	15.8 (38)	-3.0 (26)	13.7 (86)	29.8 (65)	-	
2045 Retirement Custom Index	8.9 (37)	-1.7 (59)	4.3 (83)	22.4 (60)	15.2 (68)	-3.1 (26)	13.3 (89)	30.1 (63)	-	
FRS 2050 Retirement Date Fund	9.5 (21)	-1.5 (55)	4.4 (82)	22.3 (53)	15.8 (36)	-3.0 (20)	13.7 (84)	29.8 (73)	-	
2050 Retirement Custom Index	8.9 (37)	-1.7 (62)	4.3 (82)	22.4 (53)	15.2 (58)	-3.1 (20)	13.3 (87)	30.1 (70)	-	
FRS 2055 Retirement Date Fund	9.3 (27)	-1.4 (54)	4.4 (80)	22.3 (73)	15.8 (45)	-	-	-	-	
2055 Retirement Custom Index	8.9 (33)	-1.7 (68)	4.3 (80)	22.4 (72)	15.2 (75)	-	-	-	-	
FRS 2060 Retirement Date Fund	-	-	-	-	-	-	-	-	-	
2060 Retirement Custom Index	-	-	-	-	-	-	-	-	-	





As of September 30, 2017

Asset Allocation & Performance

	Performance(%)								
	2016	2015	2014	2013	2012	2011	2010	2009	2008
Cash	0.6 (1)	0.2 (4)	0.1 (1)	0.2 (1)	0.3 (1)	0.2 (1)	0.3 (2)	0.3 (34)	2.4 (41)
FRS Money Market Fund	0.6 (1)	0.2 (4)	0.1 (1)	0.2 (1)	0.3 (1)	0.2 (1)	0.3 (2)	0.3 (34)	2.4 (41)
iMoneyNet 1st Tier Institutional Net Index	0.3 (24)	0.0 (26)	0.0 (23)	0.0 (23)	0.1 (23)	0.1 (23)	0.2 (7)	0.7 (3)	3.0 (5)
<b>Real Assets</b>									
FRS Inflation Adjusted Multi-Assets Fund	6.0	-7.9	3.2	-9.1	9.1	7.4	11.7	16.0	-
FRS Custom Real Assets Index	6.2	-5.0	1.8	-8.9	6.6	4.6	13.0	17.2	-
<b>Fixed Income</b>									
Total Bond Index	4.3 (11)	0.1 (84)	4.9 (2)	-1.2 (88)	4.8 (62)	7.4 (1)	7.0 (35)	8.9 (78)	1.9 (49)
FRS U.S. Bond Enhanced Index Fund	2.7 (3)	0.7 (33)	6.2 (35)	-2.0 (16)	4.4 (14)	7.9 (67)	6.7 (48)	6.5 (6)	5.9 (87)
Blmbg. Barc. U.S. Aggregate	2.6 (3)	0.5 (43)	6.0 (36)	-2.0 (17)	4.2 (15)	7.8 (67)	6.5 (49)	5.9 (7)	5.2 (89)
FRS Intermediate Bond Fund	3.1 (31)	0.9 (30)	3.4 (20)	-0.5 (63)	4.9 (59)	5.9 (12)	7.0 (35)	11.9 (54)	-1.7 (56)
Blmbg. Barc. U.S. Intermediate Aggregate	2.0 (69)	1.2 (16)	4.1 (6)	-1.0 (83)	3.6 (79)	6.0 (11)	6.1 (48)	6.5 (86)	4.9 (11)
FRS Core Plus Bond Fund	5.7 (28)	0.1 (46)	4.6 (88)	0.8 (21)	11.1 (16)	4.6 (89)	10.1 (28)	21.6 (20)	-
FRS Custom Core-Plus Fixed Income Index	4.9 (41)	0.2 (41)	5.1 (79)	0.8 (20)	7.8 (51)	7.6 (31)	9.1 (42)	18.7 (31)	-
<b>Domestic Equity</b>									
Total U.S. Equities Index	14.9 (22)	-0.5 (43)	11.1 (47)	34.0 (54)	16.5 (37)	-0.1 (40)	19.3 (29)	28.4 (63)	-36.5 (33)
FRS U.S. Stock Market Index Fund	12.9 (26)	0.6 (52)	12.6 (33)	33.6 (40)	16.5 (39)	1.0 (39)	17.1 (18)	28.6 (52)	-37.2 (49)
Russell 3000 Index	12.7 (26)	0.5 (52)	12.6 (34)	33.6 (40)	16.4 (40)	1.0 (39)	16.9 (20)	28.3 (53)	-37.3 (51)
FRS U.S. Large Cap Stock Fund	9.3 (58)	2.7 (29)	12.8 (42)	36.4 (22)	17.2 (24)	1.2 (45)	17.8 (19)	30.5 (36)	-
Russell 1000 Index	12.1 (33)	0.9 (43)	13.2 (33)	33.1 (47)	16.4 (31)	1.5 (41)	16.1 (31)	28.4 (43)	-
FRS U.S. Small/Mid Cap Stock Fund	19.9 (25)	-1.1 (36)	8.6 (28)	37.1 (46)	18.7 (26)	-0.9 (37)	29.6 (25)	37.0 (41)	-
FRS Custom Small/Mid Cap Index	19.6 (26)	-4.2 (72)	7.7 (33)	22.0 (98)	15.3 (53)	1.1 (22)	21.3 (85)	26.4 (86)	-

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As of September 30, 2017

Asset Allocation & Performance

	Performance(%)								
	2016	2015	2014	2013	2012	2011	2010	2009	2008
International/Global Equity	4.5 (42)	-2.6 (48)	-3.2 (42)	21.6 (33)	18.6 (53)	-11.3 (23)	10.1 (73)	34.8 (62)	-40.9 (20)
Total Foreign and Global Equities Index	4.9 (38)	-4.4 (55)	-3.0 (40)	20.6 (39)	16.6 (72)	-11.3 (23)	10.1 (73)	32.4 (69)	-42.8 (30)
FRS Foreign Stock Index Fund	5.3 (37)	-4.4 (55)	-4.5 (54)	20.5 (39)	17.6 (63)	-11.8 (27)	9.2 (77)	32.3 (69)	-42.5 (29)
MSCI All Country World ex-U.S. IMI Index	4.4 (42)	-4.6 (55)	-4.2 (51)	21.0 (36)	16.4 (72)	-12.2 (30)	8.9 (78)	33.7 (66)	-43.6 (36)
FRS Global Stock Fund	2.2 (80)	5.6 (13)	3.7 (44)	27.1 (41)	21.0 (15)	-7.4 (45)	13.0 (56)	37.7 (43)	-37.7 (31)
MSCI All Country World Index Net	7.9 (45)	-2.4 (54)	4.2 (39)	22.8 (60)	16.3 (38)	-5.5 (35)	11.8 (61)	30.0 (65)	-40.7 (43)
FRS Foreign Stock Fund	1.0 (62)	-0.5 (19)	-2.3 (14)	20.6 (55)	19.6 (36)	-13.3 (55)	9.8 (24)	39.6 (8)	-40.3 (20)
MSCI All Country World ex-U.S. Index	5.0 (8)	-5.3 (80)	-3.4 (16)	15.8 (76)	17.4 (69)	-13.3 (56)	11.6 (13)	32.5 (47)	-43.1 (60)
FRS Self-Dir Brokerage Acct									

The returns for the Retirement Date Funds, Inflation Adjusted Multi-Assets Fund, Core Plus Bond Fund, U.S. Large Cap Stock Fund, and U.S. Small/Mid Cap Stock Fund use prehire data for all months prior to 7/1/2014, actual live data is used thereafter.  
 Note: The SDBA opened for members on 1/2/14. No performance calculations will be made for the SDBA.

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## Asset Allocation

Asset Allocation as of 9/30/2017								
	U.S. Equity	Non-U.S. Equity	U.S. Fixed Income	Real Assets	Cash	Brokerage	Total	% of Total
FRS Retirement Fund	61,622,989	56,912,952	142,086,127	131,881,046			392,503,114	3.8%
FRS 2015 Retirement Date Fund	59,848,117	55,060,268	118,328,278	108,752,579			341,989,242	3.3%
FRS 2020 Retirement Date Fund	136,130,824	125,980,719	194,643,196	140,310,279			597,065,018	5.8%
FRS 2025 Retirement Date Fund	197,999,397	182,926,778	202,795,230	101,397,615			685,119,019	6.6%
FRS 2030 Retirement Date Fund	205,950,974	190,155,324	156,741,449	54,677,250			607,524,997	5.9%
FRS 2035 Retirement Date Fund	214,957,670	198,638,894	120,421,312	28,698,537			562,716,413	5.4%
FRS 2040 Retirement Date Fund	207,796,396	191,964,290	82,129,052	12,863,586			494,753,324	4.8%
FRS 2045 Retirement Date Fund	213,067,445	196,309,331	58,413,996	11,012,475			478,803,247	4.6%
FRS 2050 Retirement Date Fund	116,528,688	107,384,060	31,353,010	6,009,327			261,275,085	2.5%
FRS 2055 Retirement Date Fund	46,955,470	43,270,624	12,633,759	2,421,470			105,281,323	1.0%
FRS 2060 Retirement Date Fund	945,674	871,462	254,442	48,768			2,120,346	0.0%
<b>Total Retirement Date Funds</b>	<b>\$ 1,460,857,970</b>	<b>\$ 1,348,603,239</b>	<b>\$ 1,119,545,409</b>	<b>\$ 598,024,165</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 4,529,151,129</b>	<b>43.8%</b>
FRS Money Market Fund					937,618,959		937,618,959	9.1%
<b>Total Cash</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 937,618,959</b>	<b>\$ -</b>	<b>\$ 937,618,959</b>	<b>9.1%</b>
FRS Inflation Adjusted Multi-Assets Fund				91,027,565			91,027,565	0.9%
<b>Total Real Assets</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 91,027,565</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 91,027,565</b>	<b>0.9%</b>
FRS U.S. Bond Enhanced Index Fund			244,257,670				244,257,670	2.4%
FRS Intermediate Bond Fund			105,604,997				105,604,997	1.0%
FRS Core Plus Bond Fund			315,029,778				315,029,778	3.0%
<b>Total Fixed Income</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 664,892,444</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 664,892,444</b>	<b>6.4%</b>
FRS U.S. Stock Market Index Fund	942,965,277						942,965,277	9.1%
FRS U.S. Large Cap Stock Fund	954,957,338						954,957,338	9.2%
FRS U.S. Small/Mid Cap Stock Fund	888,235,692						888,235,692	8.6%
<b>Total Domestic Equity</b>	<b>\$ 2,786,158,307</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 2,786,158,307</b>	<b>26.9%</b>
FRS Foreign Stock Index Fund		312,664,993					312,664,993	3.0%
FRS Global Stock Fund		278,469,830					278,469,830	2.7%
FRS Foreign Stock Fund		189,996,135					189,996,135	1.8%
<b>Total International/Global Equity</b>	<b>\$ -</b>	<b>\$ 781,130,958</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 781,130,958</b>	<b>7.6%</b>
FRS Self-Dir Brokerage Acct						548,450,827	548,450,827	5.3%
<b>Total Self-Dir Brokerage Acct</b>						<b>\$ 548,450,827</b>	<b>\$ 548,450,827</b>	<b>5.3%</b>
<b>Total Portfolio</b>	<b>\$ 4,247,016,277</b>	<b>\$ 2,129,734,197</b>	<b>\$ 1,784,437,853</b>	<b>\$ 689,051,729</b>	<b>\$ 937,618,959</b>	<b>\$ 548,450,827</b>	<b>\$ 10,338,430,190</b>	<b>100.0%</b>
<b>Percent of Total</b>	<b>41.08%</b>	<b>20.60%</b>	<b>17.26%</b>	<b>6.66%</b>	<b>9.07%</b>	<b>5.30%</b>	<b>100.0%</b>	

The returns for the Retirement Date Funds, Inflation Adjusted Multi-Assets Fund, Core Plus Bond Fund, U.S. Large Cap Stock Fund, and U.S. Small/Mid Cap Stock Fund use prehire data for all months prior to 7/1/2014, actual live data is used thereafter.

Note: The SDBA opened for members on 1/2/14. No performance calculations will be made for the SDBA.



## Multi Timeperiod Statistics

	3 Years Return	3 Years Standard Deviation	3 Years Sharpe Ratio	3 Years Tracking Error	3 Years Information Ratio	3 Years Up Market Capture	3 Years Down Market Capture
FRS Investment Plan	6.89	6.82	0.97	0.47	0.53	101.90	99.73
FRS Retirement Fund	4.04	4.59	0.82	0.50	-0.36	100.06	104.39
FRS 2015 Retirement Date Fund	4.53	5.03	0.85	0.50	-0.04	101.13	102.68
FRS 2020 Retirement Date Fund	5.40	5.85	0.88	0.45	0.17	101.83	102.24
FRS 2025 Retirement Date Fund	6.27	6.62	0.91	0.47	0.44	100.72	97.83
FRS 2030 Retirement Date Fund	6.95	7.43	0.90	0.48	0.61	101.63	98.78
FRS 2035 Retirement Date Fund	7.51	8.36	0.87	0.54	0.91	103.06	99.35
FRS 2040 Retirement Date Fund	7.75	8.74	0.86	0.56	0.62	101.43	98.38
FRS 2045 Retirement Date Fund	7.93	8.86	0.87	0.65	0.41	100.11	96.94
FRS 2050 Retirement Date Fund	7.96	8.89	0.87	0.64	0.45	100.40	97.21
FRS 2055 Retirement Date Fund	7.94	8.88	0.87	0.63	0.43	100.24	97.14
FRS 2060 Retirement Date Fund	N/A	N/A	N/A	N/A	N/A	N/A	N/A
FRS Money Market Fund	0.57	0.11	5.08	0.03	8.70	177.56	N/A
FRS Inflation Adjusted Multi-Assets Fund	1.03	5.64	0.15	1.75	-0.50	105.18	121.56
FRS U.S. Bond Enhanced Index Fund	2.83	2.86	0.88	0.09	1.21	101.68	99.06
FRS Intermediate Bond Fund	2.44	2.21	0.96	0.60	0.32	111.07	114.45
FRS Core Plus Bond Fund	3.89	2.89	1.23	0.63	0.91	113.78	108.04
FRS U.S. Stock Market Index Fund	10.86	10.24	1.03	0.05	2.35	100.43	99.63
FRS U.S. Large Cap Stock Fund	11.31	11.25	0.98	2.45	0.30	109.53	112.99
FRS U.S. Small/Mid Cap Stock Fund	12.29	12.11	0.99	1.56	0.62	100.12	91.44
FRS Foreign Stock Index Fund	5.47	11.83	0.48	1.49	0.17	97.83	95.02
FRS Global Stock Fund	10.71	10.56	0.99	2.98	1.02	109.61	86.47
FRS Foreign Stock Fund	7.56	11.09	0.69	3.96	0.57	95.09	76.84

The returns for the Retirement Date Funds, Inflation Adjusted Multi-Assets Fund, Core Plus Bond Fund, U.S. Large Cap Stock Fund, and U.S. Small/Mid Cap Stock Fund use prehire data for all months prior to 7/1/2014, actual live data is used thereafter.



As of September 30, 2017

Multi Timeperiod Statistics

	5 Years Return	5 Years Standard Deviation	5 Years Sharpe Ratio	5 Years Tracking Error	5 Years Information Ratio	5 Years Up Market Capture	5 Years Down Market Capture
FRS Investment Plan	7.95	6.41	1.20	0.41	0.73	101.85	98.79
FRS Retirement Fund	4.08	4.78	0.82	1.31	0.06	106.84	111.43
FRS 2015 Retirement Date Fund	4.82	5.09	0.91	1.11	0.11	105.34	108.45
FRS 2020 Retirement Date Fund	6.24	5.77	1.05	0.81	0.22	104.51	106.47
FRS 2025 Retirement Date Fund	7.63	6.44	1.14	0.56	0.40	102.47	101.64
FRS 2030 Retirement Date Fund	8.97	7.20	1.20	0.42	0.62	101.67	99.69
FRS 2035 Retirement Date Fund	10.09	8.12	1.20	0.48	0.78	102.06	99.48
FRS 2040 Retirement Date Fund	10.30	8.40	1.19	0.48	0.59	101.19	98.82
FRS 2045 Retirement Date Fund	10.41	8.47	1.19	0.55	0.43	100.47	97.85
FRS 2050 Retirement Date Fund	10.42	8.48	1.19	0.54	0.47	100.63	98.03
FRS 2055 Retirement Date Fund	10.41	8.48	1.19	0.53	0.45	100.54	97.98
FRS 2060 Retirement Date Fund	N/A	N/A	N/A	N/A	N/A	N/A	N/A
FRS Money Market Fund	0.43	0.10	4.72	0.03	8.34	207.41	N/A
FRS Inflation Adjusted Multi-Assets Fund	-0.68	6.07	-0.12	1.68	-0.05	111.41	111.79
FRS U.S. Bond Enhanced Index Fund	2.17	2.87	0.69	0.11	0.95	101.97	99.81
FRS Intermediate Bond Fund	1.97	2.21	0.80	0.56	0.40	109.53	106.65
FRS Core Plus Bond Fund	3.48	3.21	1.02	0.73	0.40	113.16	118.24
FRS U.S. Stock Market Index Fund	14.31	9.80	1.40	0.05	1.55	100.26	99.72
FRS U.S. Large Cap Stock Fund	14.86	10.72	1.33	2.67	0.23	106.21	109.44
FRS U.S. Small/Mid Cap Stock Fund	15.26	11.98	1.23	2.44	1.43	113.87	95.75
FRS Foreign Stock Index Fund	8.55	11.37	0.76	1.31	0.20	99.20	96.41
FRS Global Stock Fund	12.82	10.09	1.23	2.87	0.83	106.16	86.17
FRS Foreign Stock Fund	9.51	10.56	0.90	3.62	0.52	96.69	79.09

The returns for the Retirement Date Funds, Inflation Adjusted Multi-Assets Fund, Core Plus Bond Fund, U.S. Large Cap Stock Fund, and U.S. Small/Mid Cap Stock Fund use prehire data for all months prior to 7/1/2014, actual live data is used thereafter.



Appendix



As of September 30, 2017

## Benchmark Descriptions

Retirement Date Benchmarks - A weighted average composite of the underlying components' benchmarks for each fund.

iMoneyNet 1st Tier Institutional Net Index - An index made up of the entire universe of money market mutual funds. The index currently represents over 1,300 funds, or approximately 99 percent of all money fund assets.

FRS Custom Real Assets Index - A monthly weighted composite of underlying indices for each TIPS and Real Assets fund. These indices include Barclays U.S. TIPS Index, MSCI World-AC World Index and the Bloomberg Commodity Total Return Index, NAREIT Developed Index, S&P Global Infrastructure Index, S&P Global Natural Resources Index.

Total Bond Index - A weighted average composite of the underlying benchmarks for each bond fund.

Barclays Aggregate Bond Index - A market value-weighted index consisting of government bonds, SEC-registered corporate bonds and mortgage-related and asset-backed securities with at least one year to maturity and an outstanding par value of \$250 million or greater. This index is a broad measure of the performance of the investment grade U.S. fixed income market.

Barclays Intermediate Aggregate Bond Index - A market value-weighted index consisting of U.S. Treasury securities, corporate bonds and mortgage-related and asset-backed securities with one to ten years to maturity and an outstanding par value of \$250 million or greater.

FRS Custom Core-Plus Fixed Income Index - A monthly rebalanced blend of 80% Barclays U.S. Aggregate Bond Index and 20% Barclays U.S. High Yield Ba/B 1% Issuer Constrained Index.

Total U.S. Equities Index - A weighted average composite of the underlying benchmarks for each domestic equity fund.

Russell 3000 Index - A capitalization-weighted index consisting of the 3,000 largest publicly traded U.S. stocks by capitalization. This index is a broad measure of the performance of the aggregate domestic equity market.

Russell 1000 Index - An index that measures the performance of the largest 1,000 stocks contained in the Russell 3000 Index.

FRS Custom Small/Mid Cap Index - A monthly rebalanced blend of 25% S&P 400 Index, 30% Russell 2000 Index, 25% Russell 2000 Value Index, and 20% Russell Mid Cap Growth Index.

Total Foreign and Global Equities Index - A weighted average composite of the underlying benchmarks for each foreign and global equity fund.

MSCI All Country World ex-U.S. IMI Index - A capitalization-weighted index of stocks representing 22 developed country stock markets and 23 emerging countries, excluding the U.S. market.

MSCI All Country World Index - A capitalization-weighted index of stocks representing approximately 46 developed and emerging countries, including the U.S. and Canadian markets.

MSCI All Country World ex-U.S. Index - A capitalization-weighted index consisting of 23 developed and 21 emerging countries, but excluding the U.S.

As of September 30, 2017

## Descriptions of Universes

Retirement Date Funds - Target date universes calculated and provided by Lipper.

FRS Money Market Fund - A money market universe calculated and provided by Lipper.

FRS U.S. Bond Enhanced Index Fund - A long-term bond fixed income universe calculated and provided by Lipper.

FRS Intermediate Bond Fund - A broad intermediate-term fixed income universe calculated and provided by Lipper.

FRS Core Plus Bond Fund - A core plus bond fixed income universe calculated and provided by Lipper.

FRS U.S. Stock Market Index Fund - A large cap blend universe calculated and provided by Lipper.

FRS U.S. Large Cap Stock Fund - A large cap universe calculated and provided by Lipper.

FRS U.S. Small/Mid Cap Stock Fund - A small/mid cap universe calculated and provided by Lipper.

FRS Foreign Stock Index Fund - A foreign blend universe calculated and provided by Lipper.

FRS Global Stock Fund - A global stock universe calculated and provided by Lipper.

FRS Foreign Stock Fund - A foreign large blend universe calculated and provided by Lipper.

## Notes

- The rates of return contained in this report are shown on an after-fees basis unless otherwise noted. They are geometric and time-weighted. Returns for periods longer than one year are annualized.
- Universe percentiles are based upon an ordering system in which 1 is the best ranking and 100 is the worst ranking.
- Due to rounding throughout the report, percentage totals displayed may not sum to 100%. Additionally, individual fund totals in dollar terms may not sum to the plan total.

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Lawton Chiles Endowment Fund | Third Quarter 2017

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## Quarterly Investment Review

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## LCEF Total Fund

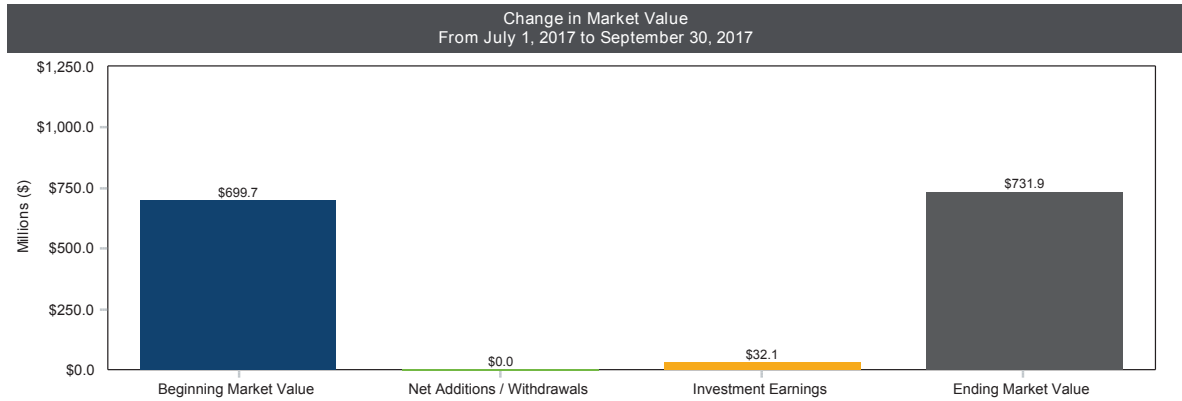
1



LCEF Total Fund

As of September 30, 2017

### Total Plan Asset Summary



### Summary of Cash Flow

	1 Quarter	Fiscal YTD*
LCEF Total Fund		
Beginning Market Value	699,743,916	699,743,916
+ Additions / Withdrawals	-	-
+ Investment Earnings	32,138,923	32,138,923
= Ending Market Value	731,882,839	731,882,839

\*Period July 2017 - September 2017

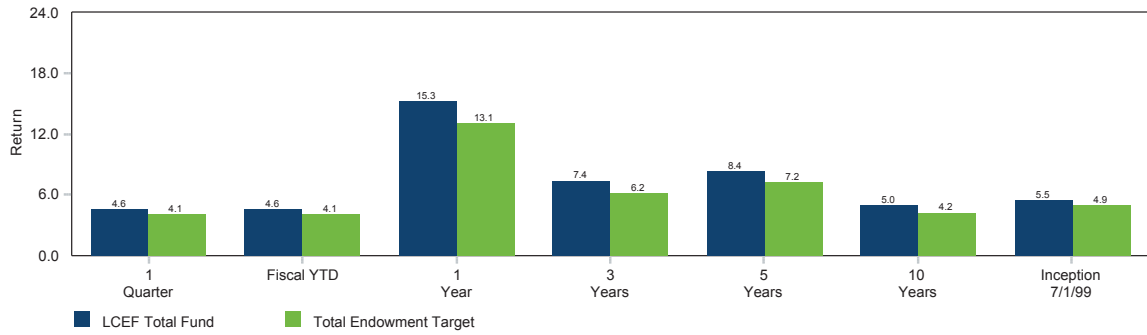
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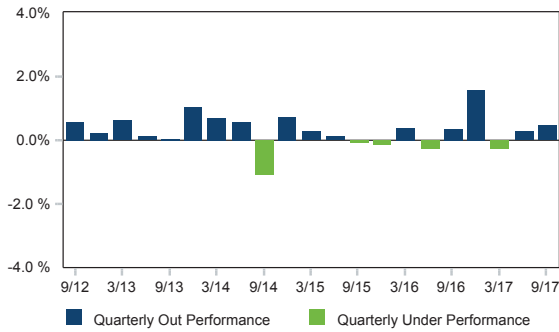


Total Plan Performance Summary

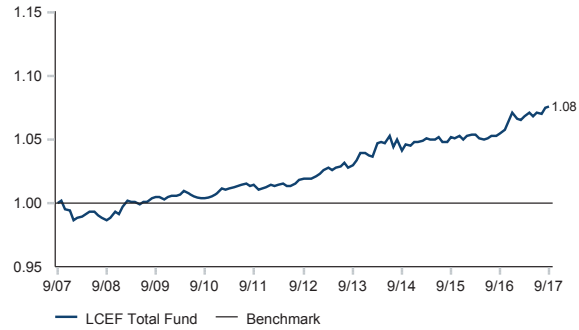
Return Summary



Quarterly Excess Performance



Ratio of Cumulative Wealth - 10 Years



Asset Allocation & Performance

	Allocation			Performance(%)				
	Market Value (\$)	%	Policy(%)	1 Quarter	1 Year	3 Years	5 Years	10 Years
LCEF Total Fund	731,882,839	100.0	100.0	4.6 (1)	15.3 (3)	7.4 (5)	8.4 (18)	5.0 (28)
Total Endowment Target				4.1 (6)	13.1 (20)	6.2 (23)	7.2 (57)	4.2 (56)
Global Equity*	541,677,099	74.0	71.0	6.0	21.5	9.3	12.2	6.2
Global Equity Target				5.5	18.9	7.7	10.5	5.3
Fixed Income	110,284,070	15.1	17.0	0.9 (36)	0.1 (54)	2.8 (33)	2.2 (35)	4.3 (59)
Bimbg. Barc. U.S. Aggregate				0.8 (39)	0.1 (55)	2.7 (35)	2.1 (42)	4.3 (62)
TIPS	69,065,049	9.4	11.0	0.9	-0.5	1.8	0.1	4.2
Barclays U.S. TIPS				0.9	-0.7	1.6	0.0	3.9
Cash Equivalents	10,856,621	1.5	1.0	0.3	1.1	0.7	0.5	1.0
S&P US AAA & AA Rated GIP 30D Net Yield Index				0.3	0.8	0.4	0.2	0.6

Benchmark and universe descriptions are provided in the Appendix.

\*Global Equity became an asset class in September 2012 by merging the Domestic Equities and Foreign Equities asset classes. The return series prior to September 2012 is a weighted average of Domestic Equities' and Foreign Equities' historical performance.

As of September 30, 2017

Calendar Year Performance

	Performance(%)										
	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007	
<b>LCEF Total Fund</b>	9.2 (5)	-1.4 (46)	5.2 (42)	14.7 (53)	13.2 (22)	1.9 (15)	14.0 (14)	21.2 (48)	-29.2 (75)	6.3 (83)	
Total Endowment Target	7.0 (27)	-1.6 (49)	4.3 (54)	12.8 (77)	12.2 (46)	1.5 (17)	13.7 (18)	19.6 (59)	-28.9 (74)	6.5 (78)	
<b>Global Equity*</b>	11.4	-1.9	5.3	27.1	20.4	-1.1	17.0	30.8	-39.6	6.8	
Global Equity Target	8.4	-2.4	3.9	24.1	19.4	-2.2	16.1	30.5	-39.2	7.2	
<b>Fixed Income</b>	2.7 (60)	0.6 (32)	6.0 (20)	-1.8 (74)	4.6 (86)	7.6 (43)	7.0 (78)	4.6 (96)	5.8 (5)	7.3 (40)	
Bimbg. Barc. U.S. Aggregate	2.6 (60)	0.5 (33)	6.0 (21)	-2.0 (76)	4.2 (89)	7.8 (40)	6.5 (82)	5.9 (87)	5.2 (15)	7.0 (51)	
<b>TIPS</b>	4.8	-1.2	3.5	-8.7	7.2	13.6	6.1	13.3	-2.0	12.4	
Barclays U.S. TIPS	4.7	-1.4	3.6	-8.6	7.0	13.6	6.3	11.4	-2.4	11.6	
<b>Cash Equivalents</b>	0.7	0.5	0.2	0.2	1.3	0.1	2.0	2.6	0.5	5.4	
S&P US AAA & AA Rated GIP 30D Net Yield Index	0.4	0.1	0.0	0.1	0.1	0.2	0.3	0.7	2.3	4.7	

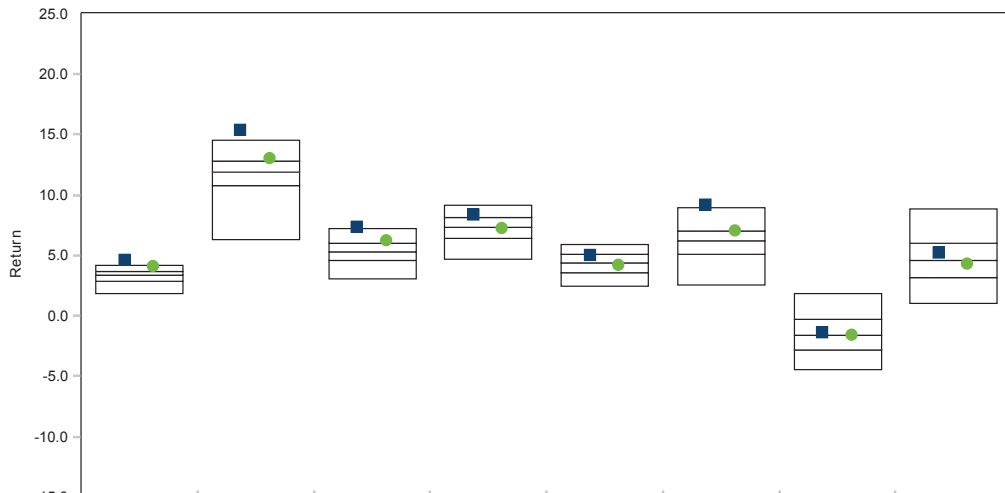
\*Global Equity became an asset class in September 2012 by merging the Domestic Equities and Foreign Equities asset classes. The return series prior to September 2012 is a weighted average of Domestic Equities' and Foreign Equities' historical performance.



As of September 30, 2017

Plan Sponsor Peer Group Analysis

All Endowments-Total Fund

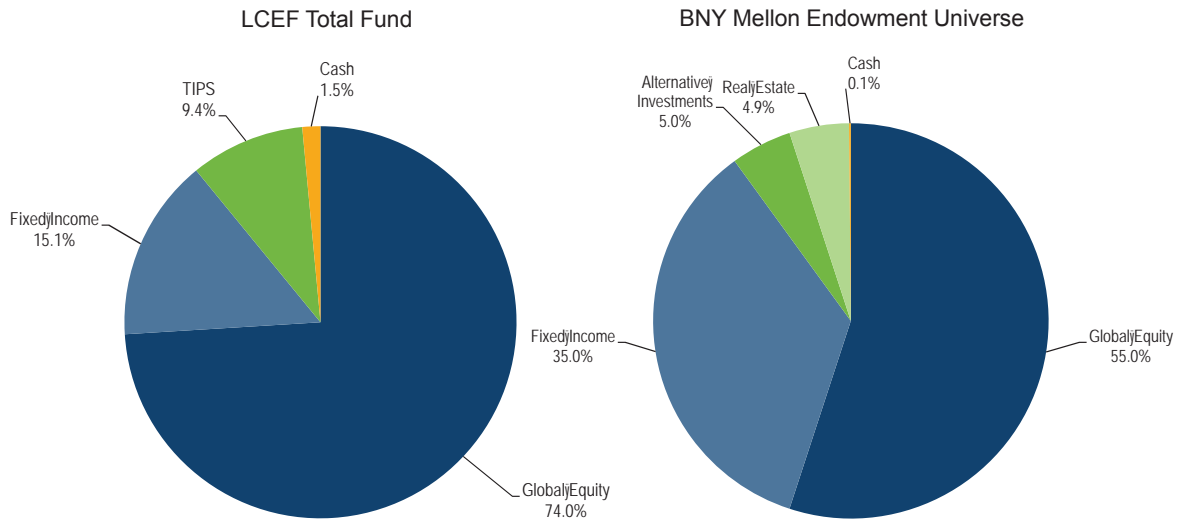


	1 Quarter	1 Year	3 Years	5 Years	10 Years	2016	2015	2014
■ LCEF Total Fund	4.6 (1)	15.3 (3)	7.4 (5)	8.4 (18)	5.0 (28)	9.2 (5)	-1.4 (46)	5.2 (42)
● Total Endowment Target	4.1 (6)	13.1 (20)	6.2 (23)	7.2 (57)	4.2 (56)	7.0 (27)	-1.6 (49)	4.3 (54)
5th Percentile	4.1	14.6	7.2	9.1	5.9	8.9	1.8	8.9
1st Quartile	3.7	12.9	6.0	8.2	5.1	7.1	-0.3	6.0
Median	3.3	11.9	5.3	7.4	4.4	6.2	-1.6	4.5
3rd Quartile	2.8	10.7	4.6	6.4	3.6	5.1	-2.8	3.1
95th Percentile	1.8	6.3	3.1	4.7	2.4	2.5	-4.4	1.1
Population	312	301	285	266	205	330	315	305

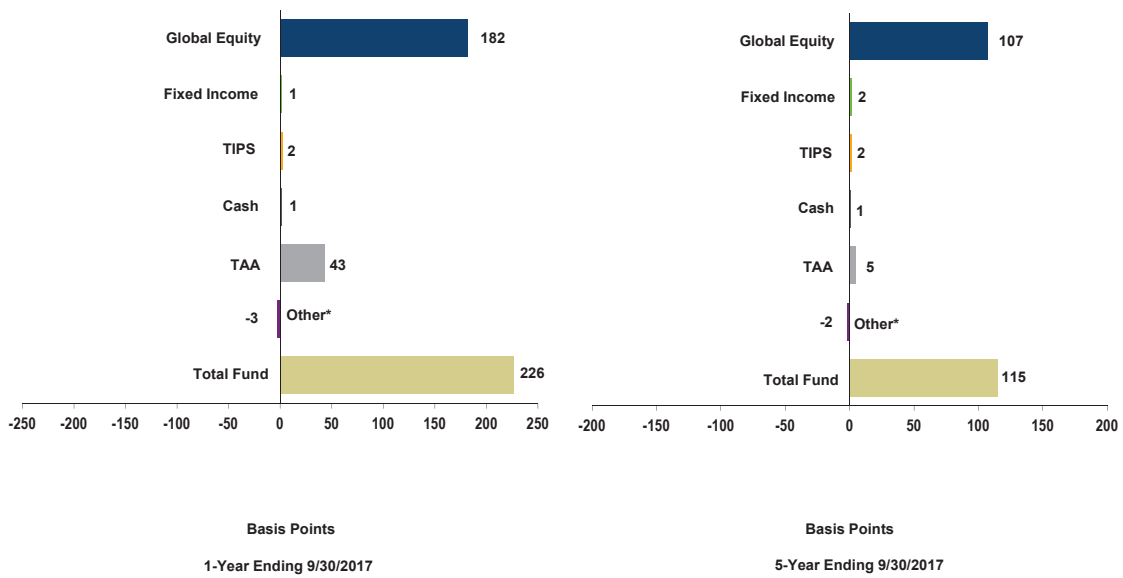
Parentheses contain percentile rankings.



Universe Asset Allocation Comparison



Attribution



\*Other includes differences between official performance value added due to methodology and extraordinary payouts.



## Appendix

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As of September 30, 2017

### Benchmark Descriptions

#### LCEF Total Fund

Total Endowment Target - A weighted blend of the individual asset class target benchmarks.

#### Total Global Equity

MSCI ACWI IMI ex-Tobacco - From 7/1/2014 forward, a custom version of the MSCI ACWI IMI excluding tobacco-related companies. From 10/1/2013 to 6/30/2014, a custom version of the MSCI ACWI IMI adjusted to reflect a 55% fixed weight in the MSCI USA IMI and a 45% fixed weight in the MSCI ACWI ex-USA IMI, and excluding certain equities of tobacco-related companies. From 9/1/2012 to 9/30/2013, a custom version of the MSCI ACWI IMI excluding tobacco-related companies. Prior to 9/1/2012, the benchmark is a weighted average of both the Domestic Equities and Foreign Equities historical benchmarks.

#### Total Domestic Equities

Russell 3000 Index ex-Tobacco - Prior to 9/1/2012, an index that measures the performance of the 3,000 stocks that make up the Russell 1000 and Russell 2000 Indices, while excluding tobacco companies.

#### Total Foreign Equities

MSCI ACWI ex-US IMI ex-Tobacco - Prior to 9/1/2012, a capitalization-weighted index representing 44 countries, but excluding the United States. The index includes 23 developed and 21 emerging market countries, and excludes tobacco companies.

#### Total Fixed Income

Barclays Aggregate Bond Index - A market value-weighted index consisting of the Barclays Credit, Government, and Mortgage-Backed Securities Indices. The index also includes credit card, auto, and home equity loan-backed securities. This index is the broadest available measure of the aggregate investment grade U.S. fixed income market.

#### Total TIPS

Barclays U.S. TIPS - A market value-weighted index consisting of U.S. Treasury Inflation-Protected Securities with one or more years remaining until maturity with total outstanding issue size of \$500 million or more.

#### Total Cash Equivalents

S&P U.S. AAA & AA Rated GIP 30-Day Net Yield Index - An unmanaged, net-of-fees, market index representative of the Local Government Investment Pool. On 10/1/2011, the S&P U.S. AAA & AA Rated GIP 30-Day Net Yield Index replaced the S&P U.S. AAA & AA Rated GIP 30-Day Gross Yield Index, which was previously used from 4/30/08 - 9/30/11. Prior to 4/30/08, it was the average 3-month T-bill rate.

As of September 30, 2017

## Universe Descriptions

### LCEF Total Fund

A universe comprised of 336 total endowment portfolio returns, net of fees, calculated and provided by BNY Mellon Performance & Risk Analytics and Investment Metrics. Aggregate assets in the universe comprised \$276.4 billion as of quarter-end and the average market value was \$863.6 million.

### Total Fixed Income

A universe comprised of 287 total fixed income portfolio returns, net of fees, of endowment plans calculated and provided by BNY Mellon Performance & Risk Analytics and Investment Metrics. Aggregate assets in the universe comprised \$21.0 billion as of quarter-end and the average market value was \$68.1 million.

As of September 30, 2017

## Explanation of Exhibits

Quarterly and Cumulative Excess Performance - The vertical axis, excess return, is a measure of fund performance less the return of the primary benchmark. The horizontal axis represents the time series. The quarterly bars represent the underlying funds' relative performance for the quarter.

Ratio of Cumulative Wealth Graph - An illustration of a portfolio's cumulative, un-annualized performance relative to that of its benchmark. An upward-sloping line indicates superior fund performance versus its benchmark. Conversely, a downward-sloping line indicates underperformance by the fund. A flat line is indicative of benchmark-like performance.

Performance Comparison - Plan Sponsor Peer Group Analysis - An illustration of the distribution of returns for a particular asset class. The component's return is indicated by the circle and its performance benchmark by the triangle. The top and bottom borders represent the 5th and 95th percentiles, respectively. The solid line indicates the median while the dotted lines represent the 25th and 75th percentiles.

## Notes

- The rates of return contained in this report are shown on an after-fees basis unless otherwise noted. They are geometric and time-weighted. Returns for periods longer than one year are annualized.
- Universe percentiles are based upon an ordering system in which 1 is the best ranking and 100 is the worst ranking.
- Due to rounding throughout the report, percentage totals displayed may not sum to 100%. Additionally, individual fund totals in dollar terms may not sum to the plan total.

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