



## **Building a well- diversified portfolio**

The System's net return on investments was 12.2% for FY 2017, exceeding the policy portfolio benchmark of 11.7%.

# INVESTMENT

- LETTER OF CERTIFICATION
- REPORT OF INVESTMENT ACTIVITY
- INVESTMENT SUMMARY
- INVESTMENT RESULTS
- INVESTMENT ALLOCATION
- SUPPORTING SCHEDULES

# LETTER OF CERTIFICATION

The Northern Trust Company  
50 South La Salle Street  
Chicago, Illinois 60603  
312-630-6000



To the Board of Trustees and the Executive Director:

The Northern Trust Company as Master Trustee has provided annual Statements of Account for the State Universities Retirement System Master Trust ("Trust") which, to the best of its knowledge, provide a complete and accurate reflection of The Northern Trust Company's record of the investments, receipts, disbursements, purchases and sales of securities and other transactions pertinent to the Trust for the period July 1, 2016 through June 30, 2017.

In addition to the custody of assets, pursuant to and in accordance with the terms of the agreement establishing the Trust, The Northern Trust Company provided and continues to provide the following services as Master Trustee:

1. Receive and hold all amounts paid to the Trust Fund by the Board of Trustees.
2. Accept and deliver securities in connection with investment transactions in accordance with the instructions of appointed Investment Managers.
3. Collect dividends and registered interest payments.
4. Collect matured or called securities and coupons to the extent provided in the operating guidelines of The Northern Trust Company in effect from time to time.
5. Transfer securities to a lending agent appointed by the Board of Trustees pursuant to directions from such lending agent.
6. Begin, maintain or defend any litigation necessary in connection with the investment, reinvestment of the Trust Fund and the administration of the Trust.
7. Invest cash balances held from time to time in the individual investment management accounts in short term-cash equivalent securities.
8. Exercise rights of ownership with respect to securities held in the trust fund, including but not limited to, proxy voting in accordance with the instructions of appointed Investment Managers; respond to stock subscriptions, conversion rights, and other capital changes pursuant to procedures set forth in the operating guidelines of The Northern Trust Company in effect from time to time.
9. Hold securities in the name of the Trust or nominee form or other means as provided in the agreement establishing the Trust.
10. Use the Federal Book Entry Account System for deposit of Treasury securities, and clearing corporations as defined in Article 8 of the Illinois Uniform Commercial Code for the deposit of other securities.
11. Employ agents with the consent of the Board of Trustees to the extent provided in the agreement establishing the Trust.
12. Provide disbursement services.
13. Provide security fail float income to the extent provided in the operating guidelines of The Northern Trust Company in effect from time to time.

**THE NORTHERN TRUST COMPANY**

By:   
Matt Pfaff, Client Service Manager

NTAC:3NS-20

The Northern Trust Company. Member FDIC. Equal Housing Lender 

## REPORT OF INVESTMENT ACTIVITY



1901 Fox Drive, Champaign, IL 61820-7333  
800-275-7877 • 217-378-8800 • (Fax) 217-378-9800  
www.surs.org

December 12, 2017

Board of Trustees  
State Universities Retirement System  
1901 Fox Drive  
Champaign, IL 61820

Dear Board of Trustees:

I am pleased to present the *Investment Section* of the SURS *Comprehensive Annual Financial Report* for the fiscal year ended June 30, 2017, including this report on investment activity. SURS maintains both a defined benefit and a defined contribution plan, known as the Self-Managed Plan (SMP). As of June 30, 2017, the defined benefit plan is valued at approximately \$18.5 billion while the SMP is valued at approximately \$2.2 billion.

Investment performance is calculated using a time-weighted rate of return. Returns are calculated by Northern Trust using industry best practices. Northern Trust calculated performance rates of return by portfolio and all composites used throughout this section. The SURS portfolio returned 12.2% during fiscal year 2017, net of fees, exceeding the policy portfolio return of 11.7%. The relative performance for the period can be attributed to active investment manager performance across much of the portfolio.

When compared to a universe of other large public funds, the SURS net of fee return ranks in the third quartile for the one-year, and slightly above the median for the three-years ending June 30, 2017. The portfolio ranks in, or near, the top quartile of the peer universe over longer time periods.

SURS achieved its strategic asset allocation targets during fiscal year 2017. The targets were established as a result of the June 2014 asset/liability study. The updated asset allocation resulted in a significant reduction in public equity exposure and introduced emerging market debt, hedge fund-of-funds, and commodities into the portfolio. Other key accomplishments during fiscal year 2017 include:

- Significant restructuring of the investment policy to better define the active/passive decision making and the investment manager evaluation processes;
- Shift from active to passive management in the TIPS and REITs asset classes;
- Approval of a 5-year private equity funding plan, totaling \$1.7 billion, to continue SURS' longstanding presence in the asset class;
- Commitment of \$50 million to an existing infrastructure manager to continue investment in the asset class;
- Implementation of a portfolio index option overlay strategy, designed to generate incremental income to a passive equity portfolio; and
- Approval of Dimensional Target Date Retirement Income Funds and the Vanguard Federal Money Market Fund for the Self-Managed Plan line-up.

As previously mentioned, the total fund's excess return relative to the policy portfolio for fiscal year 2017 was due primarily to strong performance of SURS' active managers relative to the benchmark. Eight of nine liquid asset classes outperformed the benchmark over the fiscal year, with global REITs as the lone underperforming liquid asset class, lagging the benchmark by 20 basis points. Global REITs were transitioned from active to passive management in December 2016. Of the private, illiquid asset classes, the real estate portfolio slightly exceeded the benchmark for the year while the opportunity fund portfolio (consisting of infrastructure investments) and the private equity portfolio trailed their benchmarks for the one-year period.

## REPORT OF INVESTMENT ACTIVITY

The infrastructure portfolio has provided good relative results relative to the benchmark over longer time periods (five years), however. Although private equity provided double digit absolute returns during the year, it lagged the public equity market benchmark, detracting from relative returns during the period. Overall, 89% of the policy allocation outperformed the benchmark for the one year.

The Manager Diversity Program, which focuses on qualified investment management firms owned by minorities, females, and persons with a disability (MFDB), continues to be a high priority. As of June 30, 2017, the MDP is valued at approximately \$3.0 billion. In total, assets under management with MFDB firms are approximately \$5.1 billion or 28.0% of the total fund.

The continuing challenge to SURS remains the funding status of the plan. Despite strong long-term returns, SURS remains substantially underfunded. SURS is approximately 44.1% funded as of June 30, 2017, when comparing the market value of assets to plan liabilities. It is important to note, however, that since FY 2011, SURS has received the full annual statutory contribution from the State of Illinois.

Within the Self-Managed Plan target-date fund products containing an income replacement component were reviewed during FY 2017. The Dimensional Target Date Retirement Income Fund series was approved by the Board in June 2017.

Detailed information on the investment program can be found in the Fiscal Year 2018 Investment Plan, available on SURS website.

SURS staff and investment consultant, with oversight from the Board of Trustees, continue to work on behalf of our constituents to secure and deliver the retirement benefits promised.

Sincerely,



Douglas C. Wesley, CFA  
Chief Investment Officer

## INVESTMENT SUMMARY

The SURS Board of Trustees is charged with the responsibility of investing the assets entrusted to them solely for the benefit of the System's participants and beneficiaries. The Trustees, in carrying out their responsibilities, adhere to applicable Illinois statutes and the prudent expert rule, which states that the Trustees must act with the care, skill, prudence and diligence under the circumstances then prevailing that a prudent man acting in a like capacity and familiar with such matters would use in the conduct of an enterprise of like character with like aims. In carrying out their fiduciary duties, the Trustees have set forth clearly defined investment policy, objectives, and strategies.

### Investment Policy

The Board approves the *Statement of Investment Policy*, which outlines the investment philosophy and practices of SURS. The policy describes the organization and division of responsibilities necessary to implement the Board's philosophy and objectives prudently; establishes a framework for making investment decisions, and monitoring investment activity; and promotes effective communication between the Board, Staff, and other involved parties.

### Investment Objectives

The investment objective of the total portfolio is to produce annualized investment returns, net of all management fees, which exceed the return of a composite market benchmark or policy portfolio. The policy portfolio is comprised of market indices, which are consistent with the overall asset allocation. The policy portfolio reflects a passive implementation of the investment policy. The strategic policy portfolio is comprised of the benchmarks shown below. Comparisons of total fund performance are also made with a universe of public pension funds implementing generally comparable investment policies. The public pension fund index used for comparative purposes is the InvestorForce Public DB Funds > \$1 Billion Index.

### Investment Strategies

#### ■ Asset Allocation

Asset allocation studies are completed to provide an efficient allocation of assets to achieve overall risk and return objectives. An asset/liability study completed in June 2014 resulted in slight modifications to SURS' asset allocation targets and incorporated three additional asset classes: emerging market debt, hedged equities, and commodities. The modified long-term strategic asset allocation targets are:

Asset Class	Benchmark	Strategic Policy Portfolio
U.S. Equity	Dow Jones U.S. Total Stock Market Index	23.0%
Non-U.S. Equity	Morgan Stanley All Country World Ex-U.S. Index	19.0
Global Equity	Morgan Stanley All Country World Index	8.0
Private Equity	Dow Jones U.S. Total Stock Market Index + 3.0%	6.0
Fixed Income	Bloomberg Barclays U.S. Aggregate Bond Index	19.0
TIPS	Bloomberg Barclays U.S. TIPS Index	4.0
Emerging Market Debt	Blend of JP Morgan GBI-EM Global Diversified, JP Morgan EMBI Global Diversified and JP Morgan Corporate Emerging Markets Bond Index - Broad	3.0
Direct Real Estate	NCREIF Open End Diversified Core Equity Index	6.0
REITs	FTSE EPRA/NAREIT Developed Index	4.0
Commodities	Bloomberg Commodity Index	2.0
Hedged Strategies	LIBOR +5.0%	5.0
Opportunity Fund	Custom benchmark of the combined investments	1.0
		<hr/> 100.0%

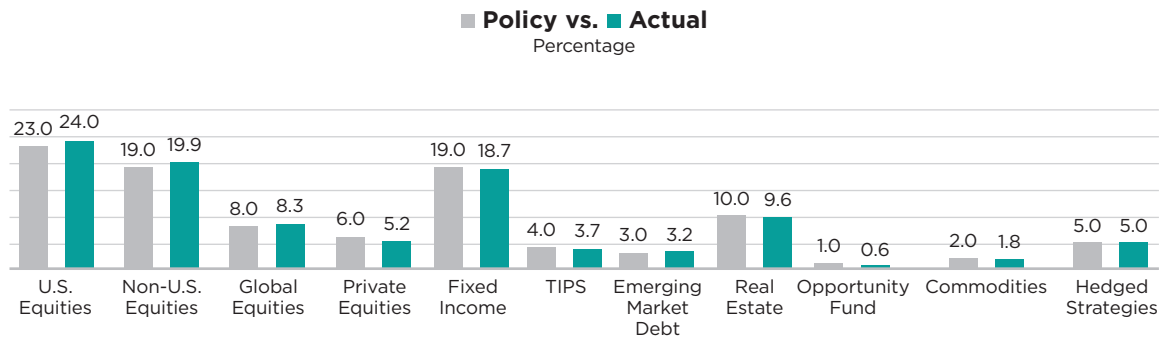
#### ■ Diversification

SURS invests in multiple asset classes utilizing various investment managers and strategies as a method to ensure overall fund diversification. As of June 30, 2017, the System had retained the services of 50 investment management firms, several of which manage multiple mandates, and an additional 12 managers through the Progress Emerging Manager of Managers program, of which four also have a direct relationship with SURS. Each investment management firm is afforded full discretion to diversify its portfolio(s) in a manner deemed appropriate. The Trustees have developed guidelines to direct the investment managers in their execution of the overall investment policy. The guidelines are specific to the asset class and strategy managed.

# INVESTMENT RESULTS

## ■ Rebalancing

Proper implementation of the investment policy requires that a periodic adjustment, or rebalancing, of assets be conducted as needed to ensure conformance with policy target levels. Such rebalancing is necessary to reflect cash flows and performance imbalances among investment managers who are hired to manage assets with a specified strategy. Although a strategy may be within a specified asset class, the manager may be authorized to utilize other instruments in another asset class. SURS' rebalancing policy calls for rebalancing, as soon as practical, if an asset class exceeds or falls below its target allocation by 3%. Ongoing rebalancing of the investment portfolio occurred as needed during the year with the assistance of a cash overlay strategy and System cash flows. At year end, the fund was invested 68% in equities, 26% in fixed income, and 6% in direct real estate funds, as compared with the target allocations of 68%, 26%, and 6%, respectively. The policy target allocations that were approved by the Board on June 13, 2014, were fully implemented in fiscal year 2017 through the strategic transition of assets among investment managers and planned searches.



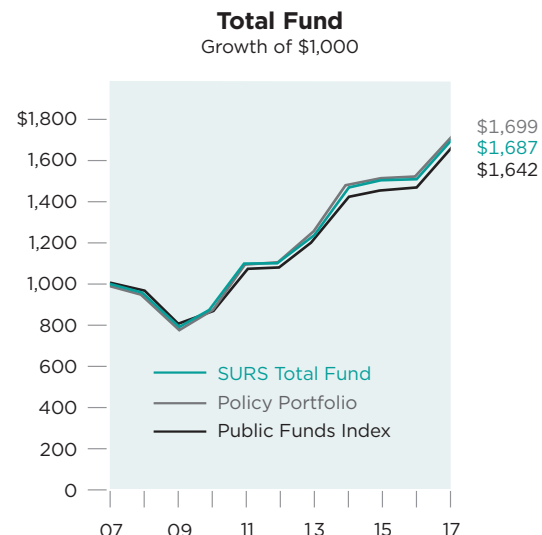
## Long-Term Investment Results

The 10-year period ended June 30, 2017, provided returns that have matched the overall benchmark. SURS total portfolio earned an annualized total return, net of all investment management expenses, of 5.4%. As shown in the investment results table, over the long term, SURS total fund returns are consistent with its market goal (policy portfolio) and more favorable than the median public pension funds benchmark.

This consistent performance is best illustrated by the growth of \$1,000 invested in SURS total fund, the policy portfolio and median public funds index during the past 10 years. The ending points indicate that \$1,000 invested in SURS total fund would have grown to \$1,687, while the same \$1,000 invested in the policy portfolio and median public funds index would have grown to \$1,699 and \$1,642, respectively.

## Fiscal Year 2017 Results

For the fiscal year ended June 30, 2017, SURS total fund returned 12.2%, surpassing the market goal, or policy portfolio, by 0.5%. SURS' one-year return lagged that of the median public pension fund return, as measured by the InvestorForce Public DB > \$1 Billion Index, by 0.1%. For the period, nine of the 12 asset class portfolios, including U.S. equity, non-U.S. equity, global equity, fixed income, TIPS, emerging market debt, direct real estate, hedged strategies and commodities met or exceeded the returns of their respective benchmarks. Strong absolute returns were experienced in U.S. equity, non-U.S. equity, global equity, private equity, fixed income, emerging market debt, direct real estate, hedged strategies and the Opportunity Fund.



## INVESTMENT RESULTS

	Fiscal Year Ended June 30					Annualized		
	2013	2014	2015	2016	2017	3 YR	5 YR	10 YR
<b>Total Fund</b>								
SURS	12.5%	18.2%	2.9%	0.2%	12.2%	5.0%	9.0%	5.4%
Policy Portfolio	12.4	18.0	2.9	0.8	11.7	5.1	9.0	5.4
Public Funds Index	11.9	17.6	2.6	0.8	12.3	5.1	8.8	5.1
CPI-U	1.8	2.1	0.1	1.0	1.6	0.9	1.3	1.6
<b>U.S. Equity</b>								
SURS	21.9	24.8	7.6	0.8	18.9	8.8	14.4	7.2
Dow Jones U.S. Total Stock Market	21.5	25.0	7.2	2.0	18.5	9.0	14.5	7.3
<b>Non-U.S. Equity</b>								
SURS	15.0	22.4	(3.7)	(9.6)	20.9	1.7	8.2	1.3
MSCI All Country World Index Ex-U.S.	13.6	21.8	(5.3)	(10.2)	20.5	0.8	7.2	1.1
<b>Global Equity (2)</b>								
SURS	15.1	24.3	2.7	(2.4)	21.6	6.8	11.8	4.5
Performance Benchmark	16.6	22.9	0.7	(3.7)	18.8	4.8	10.5	3.8
<b>Private Equity (1)</b>								
SURS	7.1	18.7	6.2	4.4	12.9	7.4	9.8	8.0
Dow Jones U.S. Total Stock Market + 3%	17.5	25.6	15.2	2.6	21.1	12.7	16.1	10.6
<b>Fixed Income</b>								
SURS	0.8	4.4	1.7	4.3	1.2	2.4	2.4	5.1
Performance Benchmark	(0.7)	4.4	1.9	6.0	(0.3)	2.5	2.2	4.5
<b>TIPS</b>								
SURS	(4.4)	4.9	(2.4)	3.8	(0.1)	0.4	0.3	4.8
Performance Benchmark	(4.8)	4.4	(1.7)	4.4	(0.6)	0.6	0.3	4.3
<b>Emerging Market Debt</b>								
SURS	-	-	-	3.9	7.4	-	-	-
Performance Benchmark	-	-	-	4.9	6.5	-	-	-
<b>Direct Real Estate (1)</b>								
SURS	9.8	14.6	12.2	12.2	7.4	10.6	11.0	7.0
Performance Benchmark	9.7	13.5	11.1	12.6	7.4	10.8	10.9	4.7
<b>Real Estate (REITs)</b>								
SURS	10.1	14.1	1.7	15.4	-	5.5	8.1	4.3
Performance Benchmark	10.0	13.4	1.7	15.5	0.2	5.6	8.0	3.7
<b>Hedge Funds</b>								
SURS	-	-	-	-	6.1	-	-	-
Performance Benchmark	-	-	-	-	5.9	-	-	-
<b>Commodities</b>								
SURS	-	-	-	-	(2.7)	-	-	-
Performance Benchmark	-	-	-	-	(6.5)	-	-	-
<b>Opportunity Fund</b>								
SURS	27.0	8.1	5.4	8.7	0.2	4.7	9.5	8.7
Performance Benchmark	6.2	1.5	5.0	6.0	7.6	6.2	6.9	3.4

Return calculations (except for private equities and direct real estate) were prepared using a time-weighted rate of return methodology in accordance with the Performance Presentation Standards of the CFA Institute.

- (1) Private equity returns and direct real estate returns were prepared using an Internal Rate of Return (IRR) methodology which is consistent with industry standards. Additionally, the returns for both the portfolio and the benchmark are reported one quarter in arrears due to the length of the performance reporting cycle.
- (2) MSCI World Index through July 2008; asset-weighted benchmark of MSCI World Index and MSCI All Country World Index (ACWI) from August 2008 through November 2008; MSCI ACWI since December 2008.



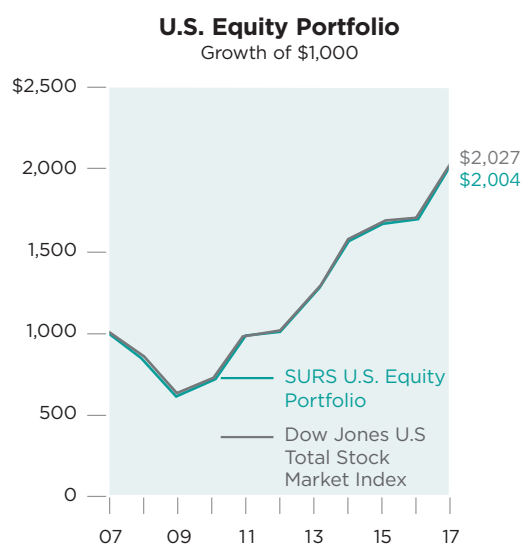
## INVESTMENT RESULTS

### U.S. Equities

For the fiscal year 2017, SURS U.S. equity portfolio returned 18.9%. SURS portfolio surpassed its market benchmark, the Dow Jones U.S. Total Stock Market (DJ U.S. TSM) Index, by 0.4%. As the table indicates, the Dow Jones U.S. Total Stock Market Index returned 18.5%. Over the past year, growth outperformed value stocks, and small cap outpaced large cap stocks. The portfolio currently maintains a structural tilt to small/mid cap equities. The SURS U.S. equity portfolio is by design, style neutral relative to the Dow Jones U.S. Total Stock Market Index. The returns from this portfolio are expected to track consistently with the broad market.

The accompanying chart indicates the growth of \$1,000 invested in the U.S. equity market during the past 10 years. The ending points indicate that \$1,000 invested in SURS U.S. equity portfolio would have increased to \$2,004 (net of investment management expenses), while the same \$1,000 invested in the Dow Jones U.S. Total Stock Market Index would have increased to \$2,027.

	FY 2017	3 YR	5 YR	10 YR
<b>SURS</b>	<b>18.9%</b>	<b>8.8%</b>	<b>14.4%</b>	<b>7.2%</b>
DJ U.S. Total Stock Market (TSM)	18.5	9.0	14.5	7.3
DJ U.S. Large Cap TSM	18.3	9.4	14.6	7.3
DJ U.S. Large Cap Growth TSM	25.1	10.9	15.7	8.7
DJ U.S. Large Cap Value TSM	15.1	8.3	13.6	5.7
DJ U.S. Small Cap TSM	21.2	7.0	14.3	8.1
DJ U.S. Small Cap Growth TSM	26.6	5.9	14.0	8.3
DJ U.S. Small Cap Value TSM	15.9	7.8	14.4	7.8
S & P 500	17.9	9.6	14.6	7.2
Russell 3000	18.5	9.1	14.6	7.3
Russell 2000	24.6	7.4	13.7	6.9



### TEN LARGEST U.S. EQUITY HOLDINGS (excludes commingled funds)

	Shares	Carrying Value
Apple Inc	890,973	\$128,317,931
Microsoft Corp	1,401,625	96,614,011
Amazon.com Inc	75,084	72,681,312
Facebook Inc Class A	362,691	54,759,087
Johnson & Johnson	401,194	53,073,954
Wells Fargo & Co	928,538	51,450,291
JPMorgan Chase & Co	521,468	47,662,175
Alphabet Inc	49,126	45,671,460
Citigroup Inc	681,426	45,573,771
Unitedhealth Group Inc	232,216	43,057,491

Note: A complete list of the portfolio holdings is available upon request.

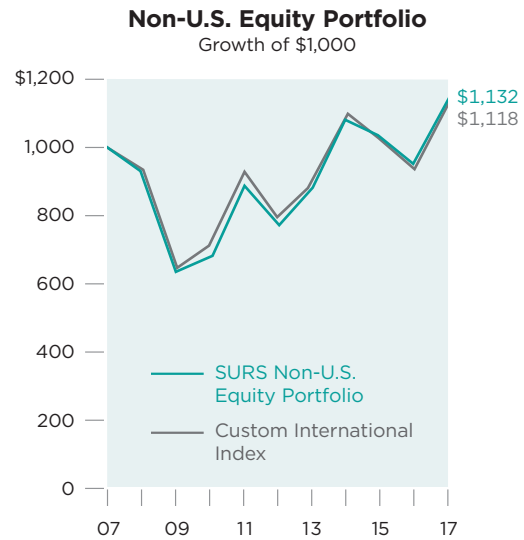
## INVESTMENT RESULTS

### Non-U.S. Equities

For fiscal year 2017, SURS non-U.S. equity portfolio returned 20.9%, exceeding its benchmark return by 0.4%. The non-U.S. equity portfolio performance benchmark, the Morgan Stanley All Country World Ex-US Index, rose 20.5% during the fiscal year. The benchmark represents a mixture of both developed and emerging markets, which varies over time depending on market performance. This mix accurately portrays the manner in which SURS non-U.S. equity investments are allocated.

The accompanying chart indicates the growth of \$1,000 invested in the non-U.S. equity markets during the past 10 years. The ending points indicate that \$1,000 invested in SURS non-U.S. equity portfolio would have grown to \$1,132 (net of investment management expenses), while the same \$1,000 invested in the performance benchmark would have grown to \$1,118.

	FY 2017	3 YR	5 YR	10 YR
<b>SURS</b>	<b>20.9%</b>	<b>1.7%</b>	<b>8.2%</b>	<b>1.3%</b>
MSCI ACWI Ex-US	20.5	0.8	7.2	1.1
MSCI EAFE	20.3	1.1	8.7	1.0
MSCI Emerging Markets	23.7	1.1	4.0	1.9



### TEN LARGEST NON-U.S. EQUITY HOLDINGS (excludes commingled funds) **Shares** **Carrying Value**

Nestle SA (Switzerland)	335,027	\$29,194,385
Allergan PLC (Ireland)	119,393	29,023,244
Sanofi (France)	285,284	27,253,884
GlaxoSmithKline PLC (United Kingdom)	1,156,502	24,569,106
Samsung Electronics Co Ltd (Republic of Korea)	10,736	22,304,306
Roche Holding AG (Switzerland)	79,101	20,170,693
Alibaba Group Holding Ltd (China)	128,817	18,150,315
SAP SE (Germany)	169,521	17,681,599
Allianz SE (Germany)	86,885	17,084,268
Reckitt Benckiser Group PLC (United Kingdom)	168,294	17,016,251

Note: A complete list of the portfolio holdings is available upon request.

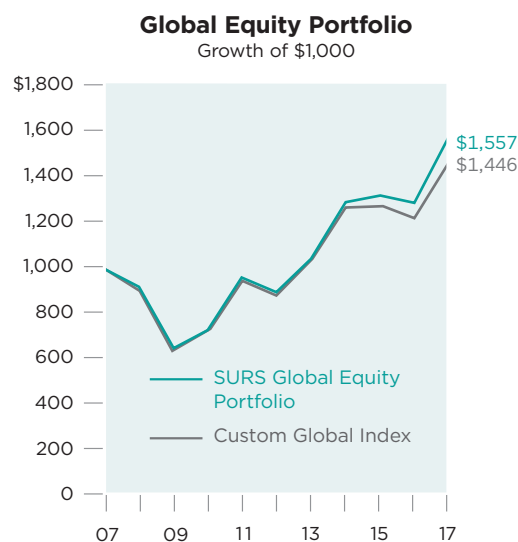
## INVESTMENT RESULTS

### Global Equities

SURS global equity portfolio surpassed its benchmark by 2.8% for the fiscal year, returning 21.6%. The benchmark for this portfolio was modified in November of 2008 from the MSCI World Index to the MSCI All Country World Index (ACWI), to include emerging markets as well as developed markets in the benchmark.

The accompanying chart indicates the growth of \$1,000 invested in the global equity markets during the past 10 years. The ending points indicate that \$1,000 invested in SURS global equity portfolio would have grown to \$1,557 (net of investment management expenses), while the same \$1,000 invested in the performance benchmark would have grown to \$1,446.

	FY 2017	3 YR	5 YR	10 YR
<b>SURS</b>	<b>21.6%</b>	<b>6.8%</b>	<b>11.8%</b>	<b>4.5%</b>
MSCI ACWI	18.8	4.8	10.5	3.7
MSCI World	18.2	5.2	11.4	4.0
Dow Jones U.S. Total Stock Market	18.5	9.0	14.5	7.3
MSCI EAFE	20.3	1.1	8.7	1.0
MSCI ACWI Ex-US	20.5	0.8	7.2	1.1



### Private Equities

SURS private equity portfolio posted a positive return of 12.9% during fiscal year 2017. The portfolio's benchmark, the Dow Jones U.S. Total Stock Market Index + 3%, returned 21.1%. As of June 30, 2017, the valuation of SURS private equity portfolio was \$0.95 billion, representing 5.2% of total plan assets. Since inception, the asset class has added significant value to the SURS investment program.

SURS private equity portfolio is well diversified. Since its inception in 1990, the SURS private equity portfolio has made commitments to numerous partnership funds. The private equity portfolio is diversified by vintage year, general partner groups and sub-asset class types. This diversification effort has benefited the portfolio as different sub-classes perform better under different economic and market conditions.

Since its inception, a total of approximately \$3.2 billion has been committed to the asset class, and of this amount approximately \$2.5 billion has been invested. In addition, during this same period, SURS has received approximately \$3.2 billion in distributions, which, when combined with the current value of the portfolio, indicates that the portfolio has generated a significant return over the approximately 25-year period. The table below indicates that since inception SURS private equity portfolio has significantly exceeded its benchmark return. The returns from this asset class lag one quarter due to the time frame associated with data collection for both accounting and performance reporting purposes.

	FY 2017	3 YR	5 YR	10 YR	Since Inception
<b>SURS</b>	<b>12.9%</b>	<b>7.4%</b>	<b>9.8%</b>	<b>8.0%</b>	<b>20.5%</b>
Performance Benchmark	21.1	12.7	16.1	10.6	13.3

(Dow Jones U.S. Total Stock Market + 300 Basis Points)

## INVESTMENT RESULTS

### Fixed Income

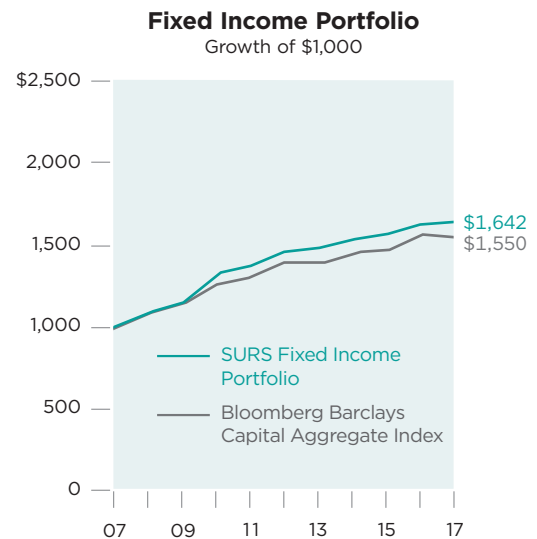
The SURS fixed income portfolio returned 1.2% for fiscal year 2017, exceeding the (0.3)% return of the portfolio's benchmark by 1.5%. The fixed income portfolio's benchmark is the Bloomberg Barclays U.S. Aggregate Bond Index, which reflects the manner in which the assets are invested. SURS investment managers typically employ a Core / Core Plus approach that utilizes securities which include government, corporate, mortgage, high yield, and non-U.S. sectors. This asset class has proven to be the most consistent asset of all the portfolios, generating above benchmark returns in 24 of the past 29 fiscal years.

During fiscal year 2013, an unconstrained fixed income investment strategy was introduced into the portfolio. The addition of the unconstrained strategy provided further diversification and downside protection within the overall fixed income portfolio by introducing a strategy that has a low correlation with SURS other fixed income strategies. The unconstrained portfolio employs both a top-down and a bottom-up approach to the global fixed income universe with the opportunity to add exposure to securities outside of those included in the Bloomberg Barclays U.S. Aggregate Bond Index.

SURS fixed income portfolio is structured to capture the return of the broad market over the long term. Consequently, the returns from this portfolio will tend to track that of the broad fixed income market (Bloomberg Barclays U.S. Aggregate Bond Index) over longer periods of time.

The accompanying chart indicates the growth of \$1,000 invested in the U.S. fixed income market during the past 10 years. The ending points show that \$1,000 invested in SURS U.S. fixed income portfolio would have grown to \$1,642 (net of investment management expenses), while the same \$1,000 invested in the portfolio's benchmark would have grown to \$1,550.

	FY 2017	3 YR	5 YR	10 YR
<b>SURS</b>	<b>1.2%</b>	<b>2.4%</b>	<b>2.4%</b>	<b>5.1%</b>
Bloomberg Barclays U.S. Aggregate	(0.3)	2.5	2.2	4.5
Bloomberg Barclays Universal	0.9	2.8	2.7	4.7
Long-Term Government	(7.0)	5.5	2.8	7.3
Intermediate Government	(1.2)	1.5	1.1	3.4
Long-Term Corporate	3.6	5.4	5.6	7.7
Intermediate Corporate	1.7	2.8	3.3	5.1
Mortgage-Backed	(0.1)	2.2	2.0	4.3



### TEN LARGEST FIXED INCOME HOLDINGS (excludes commingled funds)

Asset Description	S & P Rating	Interest Rate	Maturity Date	Par Value	Carrying Value
Fannie Mae Mortgage-Backed Bonds	AA+	3.500	August 15, 2047	66,700,000	68,390,378
U.S. Treasury Bonds	AA+	2.875	August 15, 2045	65,795,000	66,162,531
U.S. Treasury Inflation Index Notes	AA+	0.250	January 15, 2025	38,787,000	39,334,046
Fannie Mae Mortgage-Backed Bonds	AA+	4.500	August 15, 2047	36,170,000	38,750,657
U.S. Treasury Notes	AA+	1.750	June 30, 2022	38,515,000	38,265,269
U.S. Treasury Inflation Index Bonds	AA+	0.125	July 15, 2024	37,261,000	37,693,500
U.S. Treasury Notes	AA+	2.000	May 31, 2024	36,200,000	35,908,699
U.S. Treasury Notes	AA+	1.750	May 31, 2022	35,760,000	35,550,482
U.S. Treasury Notes	AA+	0.125	April 15, 2020	33,576,000	35,115,025
U.S. Treasury Inflation Index Bonds	AA+	0.125	July 15, 2022	32,660,000	34,685,675

Note: A complete list of the portfolio holdings is available upon request.

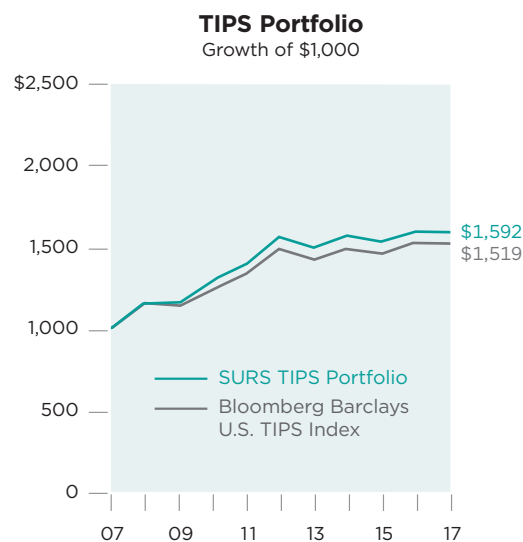
## INVESTMENT RESULTS

### Treasury Inflation-Protected Securities (TIPS)

At June 30, 2017, TIPS accounted for a 4.0% allocation of the total fund. During FY 2017 the TIPS portfolio was transitioned from active to passive management. The TIPS portfolio returned (0.1)% for fiscal year 2017, exceeding its Bloomberg Barclays U.S. TIPS benchmark by 0.5%. The portfolio's ten-year return outpaced the annualized benchmark return by 0.5%.

The accompanying chart indicates the growth of \$1,000 invested in the U.S. TIPS market during the past 10 years. The ending points indicate that \$1,000 invested in SURS U.S. TIPS portfolio would have grown to \$1,592 (net of investment management expenses), while the same \$1,000 invested in the portfolio's benchmark would have grown to \$1,519.

	FY 2017	3 YR	5 YR	10 YR
<b>SURS</b>	<b>(0.1)%</b>	<b>0.4%</b>	<b>0.3%</b>	<b>4.8%</b>
Bloomberg Barclays U.S. TIPS	(0.6)	0.6	0.3	4.3



### Emerging Market Debt

SURS emerging market debt portfolio employs a combination of strategies including local currency, corporate, and blended strategies. The combination of strategies provides diversification within the asset class and gives SURS exposure to government and corporate emerging market debt denominated in U.S. Dollar or local currency. Emerging market debt became a new asset class in FY 2015 with a target allocation of 3% of the overall SURS portfolio. The emerging market debt portfolio returned 7.4% for fiscal year 2017, exceeding the annualized custom benchmark return by 0.9%.

	FY 2017	Since Inception
<b>SURS</b>	<b>7.4%</b>	<b>4.1%</b>
Custom Benchmark	6.5	5.0
JPM CEMBI Broad	7.0	6.3
JPM EMBI Global Diversified	6.0	6.8
JPM GBI-EM Global Diversified	6.4	3.3

## INVESTMENT RESULTS

### Real Estate

The real estate asset class target allocation of 10%, comprised of 4% global REITs and 6% direct real estate, was achieved during FY 2017. As of June 30, 2017, actual allocations were 3.9% and 5.7%, respectively.

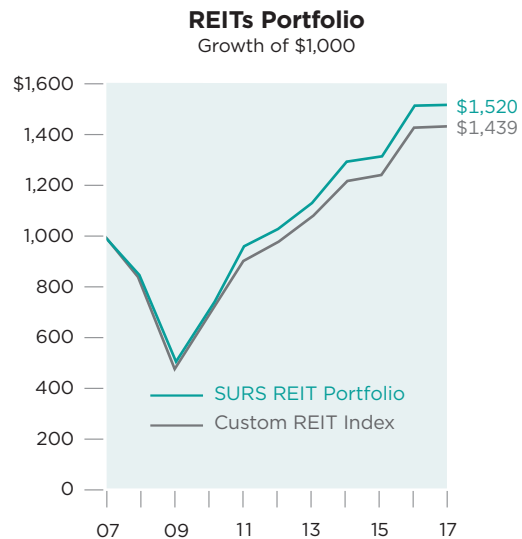
Since its inception, a total of approximately \$1.171 billion has been committed to direct real estate funds, and of this amount approximately \$1.054 billion has been invested. The direct real estate portfolio returned 7.4% for the fiscal year, matching its benchmark. The National Council of Real Estate Investment Fiduciaries (NCREIF) Open End Diversified Core Equity (ODCE) Index benchmark returned 7.4% for the same period. The returns from this asset class lag one quarter due to the time frame associated with data collection for both accounting and performance reporting purposes.

During FY 2017 the REIT portfolio was transitioned from active to passive management. SURS REIT portfolio returned 0.0% during the fiscal year, trailing its benchmark, the FTSE EPRA/NAREIT Developed Index, by 0.2%. The portfolio's five- and ten-year returns exceeded the benchmark returns by 0.1% and 0.6% on an annualized basis.

The accompanying chart indicates the growth of \$1,000 invested in the REIT market during the past 10 years. The ending points indicate that \$1,000 invested in SURS REIT portfolio would have increased to \$1,520 (net of investment management expenses), while the same \$1,000 invested in the performance benchmark would have grown to \$1,439.

	FY 2017	3 YR	5 YR	10 YR
<b>SURS</b>	<b>7.4%</b>	<b>10.6%</b>	<b>11.0%</b>	<b>7.0%</b>
NCREIF ODCE Index	7.4	10.8	10.9	4.7

	FY 2017	3 YR	5 YR	10 YR
<b>SURS</b>	<b>0.0%</b>	<b>5.5%</b>	<b>8.1%</b>	<b>4.3%</b>
Performance Benchmark	0.2	5.6	8.0	3.7
FTSE EPRA /NAREIT Developed	0.2	3.7	7.5	2.0
FTSE EPRA /NAREIT Developed Ex-US	5.3	0.8	6.9	0.3



## INVESTMENT RESULTS

### Opportunity Fund

The SURS Board of Trustees created the Opportunity Fund during fiscal year 2000 to provide an arena for investments in new opportunities, which might otherwise not be included in the total investment portfolio. Each of the investment portfolios is evaluated on an annual basis to determine whether or not they continue to merit inclusion in the fund. This unique portfolio has been designed in such a manner that no more than approximately 5% of the total fund assets can be invested in the Fund. As of June 30, 2017, there was one type of investment in the portfolio: an infrastructure portfolio. SURS has committed \$130 million to the infrastructure portfolio.

The Opportunity Fund returned 0.2% during the fiscal year, trailing its custom benchmark return by 7.4%. In order to accurately monitor these investments, a custom benchmark has been established. The benchmark reflects a passive implementation of the various portfolios included in the Fund.

	FY 2017	3 YR	5 YR	10 YR
<b>SURS</b>	<b>0.2%</b>	<b>4.7%</b>	<b>9.5%</b>	<b>8.7%</b>
Performance Benchmark	7.6	6.2	6.9	3.4

### Commodities

The commodities asset class has a target allocation of 2% of the overall SURS portfolio. In December 2015, the Board of Trustees selected two active commodities managers to fulfill the 2% targeted mandate. These two managers were funded in June 2016. The first full fiscal year performance for commodities resulted in the portfolio returning (2.7%), outpacing the benchmark return by 3.8%.

	FY 2017
<b>SURS</b>	<b>(2.7)%</b>
Performance Benchmark	(6.5)

### Hedged Strategies

As a result of the 2014 asset/liability study, hedged strategies became a new asset class with a target allocation of 5% of the overall SURS portfolio. A search was initiated in December 2014 to identify diversified, multi-strategy Fund of Hedge Fund providers. In October 2015, two firms were selected by the Board to manage a total of 3% of the SURS portfolio and begin the initial implementation of the hedged strategies allocation. During fiscal year 2017, the target allocation for hedged strategies was achieved. The hedged strategies portfolio returned 6.1% for fiscal year 2017, surpassing its benchmark return by 0.2%.

	FY 2017
<b>SURS</b>	<b>6.1%</b>
Performance Benchmark	5.9

### Self-Managed Plan

Fiscal year 2017 marks the nineteenth complete year of the Self-Managed Plan (SMP). As of June 30, 2017, the SMP had accumulated plan assets of approximately \$2.17 billion. This represents an increase of approximately \$345 million since the end of fiscal year 2016. Contributing to the growth in plan assets was a market-related increase, net of asset withdrawals, of \$266 million. During the past several years, SMP participants have continued to maintain a balanced exposure to equities. In aggregate, the total funds invested by SMP participants have an allocation of 70% equity, 28% fixed income, and 2% real estate. This was a 1% increase in the equity allocation as compared to last year's position.

A detailed schedule of the funds available in this plan, along with the investment totals for each fund, can be found in the accompanying table.

## INVESTMENT ALLOCATION

Self-Managed Plan Investment Allocation  
June 30, 2017

	U.S. Equity	Non-U.S. Equity	Fixed Income	Balanced	Real Estate	Total
<b>Fidelity Funds</b>						
Fidelity Managed Income Portfolio Class 2	\$ -	\$ -	\$ 44,308,869	\$ -	\$ -	\$ 44,308,869
Fidelity U.S. Bond Index Institutional	-	-	36,694,608	-	-	36,694,608
PIMCO Total Return Institutional	-	-	40,723,097	-	-	40,723,097
Fidelity Puritan Class K	-	-	-	200,980,636	-	200,980,636
Ariel Fund Institutional	35,393,835	-	-	-	-	35,393,835
American Beacon Large Cap Value Inst	12,941,797	-	-	-	-	12,941,797
Wells Fargo Small Company Growth R6	16,469,716	-	-	-	-	16,469,716
Fidelity Growth Company Commingled Pool	109,128,831	-	-	-	-	109,128,831
Fidelity Extended Market Index Premium	44,535,916	-	-	-	-	44,535,916
Fidelity Contrafund Commingled Pool	100,393,250	-	-	-	-	100,393,250
Fidelity Low Priced Stock Class K	46,186,199	-	-	-	-	46,186,199
Fidelity 500 Index Institutional	206,738,585	-	-	-	-	206,738,585
Fidelity Diversified International Class K	-	45,675,292	-	-	-	45,675,292
Fidelity Global ex-U.S. Index Institutional	-	27,001,710	-	-	-	27,001,710
Fidelity Real Estate Investment	-	-	-	-	19,101,127	19,101,127
Fidelity Freedom Index 2005 (1)	-	-	-	590,903	-	590,903
Fidelity Freedom Index 2010 (1)	-	-	-	2,180,743	-	2,180,743
Fidelity Freedom Index 2015 (1)	-	-	-	9,344,419	-	9,344,419
Fidelity Freedom Index 2020 (1)	-	-	-	29,992,588	-	29,992,588
Fidelity Freedom Index 2025 (1)	-	-	-	38,554,493	-	38,554,493
Fidelity Freedom Index 2030 (1)	-	-	-	44,481,874	-	44,481,874
Fidelity Freedom Index 2035 (1)	-	-	-	42,484,908	-	42,484,908
Fidelity Freedom Index 2040 (1)	-	-	-	38,887,729	-	38,887,729
Fidelity Freedom Index 2045 (1)	-	-	-	22,096,175	-	22,096,175
Fidelity Freedom Index 2050 (1)	-	-	-	14,860,538	-	14,860,538
Fidelity Freedom Index 2055 (1)	-	-	-	4,963,433	-	4,963,433
Fidelity Freedom Index 2060 (1)	-	-	-	605,992	-	605,992
Fidelity Freedom Index Income	-	-	-	2,370,073	-	2,370,073
<b>Fidelity Total</b>	<b>571,788,129</b>	<b>72,677,002</b>	<b>121,726,574</b>	<b>452,394,504</b>	<b>19,101,127</b>	<b>1,237,687,336</b>
						<b>60.3%</b>
<b>TIAA-CREF Funds</b>						
CREF Money Market Account R3	-	-	18,171,180	-	-	18,171,180
TIAA Traditional Annuity	-	-	112,010,528	-	-	112,010,528
CREF Bond Market Account R3	-	-	50,224,378	-	-	50,224,378
CREF Inflation-Linked Bond Account R3	-	-	24,910,239	-	-	24,910,239
CREF Social Choice Account R3	-	-	-	53,704,444	-	53,704,444
CREF Equity Index Account R3	87,091,852	-	-	-	-	87,091,852
CREF Growth Account R3 (2)	515,696	-	-	-	-	515,696
CREF Stock Account R3	167,994,408	-	-	-	-	167,994,408
CREF Global Equities Account R3	-	58,153,897	-	-	-	58,153,897
TIAA Real Estate Account	-	-	-	-	18,409,380	18,409,380
TIAA-CREF Large-Cap Growth Index - Inst	112,700,789	-	-	-	-	112,700,789
TIAA-CREF Lifecycle Index Fund 2010 - Inst	-	-	-	1,526,943	-	1,526,943
TIAA-CREF Lifecycle Index Fund 2015 - Inst	-	-	-	4,184,740	-	4,184,740
TIAA-CREF Lifecycle Index Fund 2020 - Inst	-	-	-	10,999,857	-	10,999,857
TIAA-CREF Lifecycle Index Fund 2025 - Inst	-	-	-	13,515,374	-	13,515,374
TIAA-CREF Lifecycle Index Fund 2030 - Inst	-	-	-	16,923,386	-	16,923,386
TIAA-CREF Lifecycle Index Fund 2035 - Inst	-	-	-	17,210,092	-	17,210,092
TIAA-CREF Lifecycle Index Fund 2040 - Inst	-	-	-	23,668,765	-	23,668,765
TIAA-CREF Lifecycle Index Fund 2045 - Inst	-	-	-	12,749,049	-	12,749,049
TIAA-CREF Lifecycle Index Fund 2050 - Inst	-	-	-	6,504,499	-	6,504,499
TIAA-CREF Lifecycle Index Fund 2055 - Inst	-	-	-	2,426,245	-	2,426,245
TIAA-CREF Lifecycle Index Fund 2060 - Inst	-	-	-	97,478	-	97,478
TIAA-CREF Lifecycle Retirement Inc - Inst	-	-	-	1,393,385	-	1,393,385
<b>TIAA-CREF Total</b>	<b>368,302,745</b>	<b>58,153,897</b>	<b>205,316,325</b>	<b>164,904,257</b>	<b>18,409,380</b>	<b>815,086,604</b>
						<b>39.7%</b>
<b>GRAND TOTALS</b>	<b>\$940,090,874</b>	<b>\$130,830,899</b>	<b>\$327,042,899</b>	<b>\$617,298,761</b>	<b>\$37,510,507</b>	<b>\$2,052,773,940</b>
	<b>45.8%</b>	<b>6.4%</b>	<b>15.9%</b>	<b>30.1%</b>	<b>1.8%</b>	<b>100.0%</b>
<b>SMP Forfeiture Reserve (3)</b>						<b>13,364,050</b>
<b>SMP Disability Reserve (3)</b>						<b>98,660,577</b>
<b>Total SMP Investments</b>						<b>\$2,164,798,567</b>

- As of June 30, 2017, the Fidelity Freedom Fund (lifecycle) series is the default fund for members who have selected the Self-Managed Plan, but have not yet selected individual mutual/variable annuity funds.
- CREF Growth Account is no longer an approved option for the Self-Managed Plan. Assets remaining in the Account were invested prior to termination of this option.
- These assets are commingled with the SURS defined benefit plan investments and accrue interest equal to the overall annual rate of return of the fund, net of fees.



# INVESTMENT ALLOCATION

## Defined Benefit Plan Investment Allocation June 30, 2017 (\$ thousands)

	Fair Value
<b>U.S. Equity Managers</b>	
Northern Trust Asset Management	\$ 1,407,653
RhumbLine Advisers	780,743
CastleArk Management	171,581
Channing Capital Management	182,041
EARNEST Partners	137,886
Gladius Capital Management	377,309
Mesirow Financial Investment Management	169,785
Piedmont Investment Advisors	549,717
T. Rowe Price	403,309
Subtotal	<u>4,180,024</u>
<b>Non-U.S. Equity Managers</b>	
BTC Custom International Fund	1,314,020
BTC Emerging Markets Fund	219,570
Ativo Capital Management	266,222
BTC International Alpha Tilts	495,946
Fidelity Institutional Asset Management	545,142
GlobeFlex Capital	295,307
Progress Emerging Managers	205,395
Strategic Global Advisors	314,823
Subtotal	<u>3,656,425</u>
<b>Global Equity Managers</b>	
Mondrian Investment Partners	505,482
T. Rowe Price	540,175
Wellington Management	512,166
Subtotal	<u>1,557,823</u>
<b>Private Equity Managers</b>	
Adams Street Partners	77,499
Adams Street 2016 Global Fund	10,894
Adams Street 2015 Global Fund	34,555
Adams Street 2014 Global Fund	53,674
Adams Street 2013 Global Fund	68,360
Adams Street 2012 Global Fund	59,396
Adams Street 2009 Global Offering	83,903
Adams Street 2008 Global Offering	77,806
Adams Street 2007 Global Opportunities Portfolio	46,413
Adams Street Global Opportunities Secondary Fund	5,725
Adams Street Global Secondary Fund 5	11,555
Adams Street 2004 Non-U.S. Fund	12,422
Fairview Lincoln Fund I	33,319
Muller and Monroe Emerging PEFF	7,307
Muller and Monroe ILPEFF	496
Muller and Monroe MPEFF	9,223
Pantheon Europe Fund III	10,347
Pantheon Europe Fund VI	24,431
Pantheon Europe Fund VII	27,486
Pantheon Multi-Strategy Program 2014	34,525
Pantheon Global	78
Pantheon Global Secondary Fund II	3,857
Pantheon USA IX	71,957
Pantheon USA VIII	84,089
Pantheon Ventures, Inc.	115,790
Subtotal	<u>965,127</u>
<b>Emerging Market Debt</b>	
BlueBay Emerging Markets Select Debt	184,234
Colchester Local Markets Debt Fund	110,704
Progress Emerging Manager	77,097
Prudential Emerging Markets Debt Blend	199,613
Subtotal	<u>\$ 571,648</u>

## INVESTMENT ALLOCATION

### Defined Benefit Plan Investment Allocation June 30, 2017 (\$ thousands)

	Fair Value
<b>Fixed Income Managers</b>	
Cash	\$ 283,056
State Street Global Advisors	609,656
Garcia Hamilton & Associates	311,274
LM Capital Group	163,021
Neuberger Berman	345,606
Pacific Investment Management Company - Total Return	417,212
Pacific Investment Management Company - Unconstrained	473,117
Progress Emerging Managers	145,895
Pugh Capital Management	162,414
Smith Graham & Company	104,648
TCW Metropolitan West Asset Management	542,916
Subtotal	<u>3,558,815</u>
<b>Treasury Inflation-Protected Securities</b>	
RhumbLine Advisers	680,137
Subtotal	<u>680,137</u>
<b>Direct Real Estate</b>	
Blue Vista Real Estate Partners IV	18,633
Brookfield Strategic Real Estate Partners II	21,281
Courtland/Pru Real Estate Global Partnership II	38,721
Crow Holdings Realty Partners VII	26,159
Dune Real Estate Parallel Fund II	24,197
Dune Real Estate Fund III	89,397
Franklin Templeton EMREFF	32,957
Franklin Templeton FTPREF	12,138
Franklin Templeton MDP Real Estate 2015	11,600
Heitman America Real Estate Trust	196,755
JPMCB Strategic Property Fund	201,753
RREEF America III Fund	265
RREEF West VI Fund	136
UBS Trumbull Property Fund	375,558
Subtotal	<u>1,049,550</u>
<b>Real Estate Investment Securities</b>	
BTC Developed Real Estate Index	701,890
Subtotal	<u>701,890</u>
<b>Cash Overlay</b>	
Parametric Clifton	73,489
Subtotal	<u>73,489</u>
<b>Hedged Strategies</b>	
KKR Prisma Codlin Fund	449,466
PAAMCO Newport Monarch Fund	450,360
Subtotal	<u>899,826</u>
<b>Commodities</b>	
Invesco Balanced Risk Commodity Trust	232,527
PIMCO Commodity Alpha Fund	97,311
Subtotal	<u>329,838</u>
<b>Infrastructure Managers</b>	
Alinda Capital Partners	35,072
Macquarie Infrastructure Partners II	33,866
Macquarie Infrastructure Partners III	39,864
Subtotal	<u>108,802</u>
<b>SMP Forfeiture/Disability Reserves</b>	
	(112,025) (B)
<b>Total Fund</b>	<b><u>\$ 18,221,369 (A)</u></b>

(A) Amount includes net pending transactions of (\$386,563) and accrued investment income receivable of \$45,836.

(B) These assets are commingled with the SURS defined benefit plan investments.

## SUPPORTING SCHEDULES

### Top 50 Brokers and Total Domestic Equity Investment Commissions For the Year Ended June 30, 2017

Investment Brokerage Firm	2017		
	Commission	Shares Traded	Commission per Share
Loop Capital Markets	\$ 238,075	13,274,854	\$ 0.03
Credit Suisse	133,759	4,680,527	0.03
Cheevers & Company	124,815	5,409,949	0.03
Williams Capital Group	116,402	6,344,977	0.03
CastleOak Securities	97,674	3,447,029	0.03
Barclays	60,634	1,969,624	0.03
Robert W. Baird & Company	60,618	1,693,984	0.04
Stifel, Nicolaus & Company	60,552	1,763,411	0.03
ITG (Investment Technology Group)	57,477	1,952,475	0.03
CAPIS (Capital Institutional Services)	57,104	1,780,277	0.03
Cabrera Capital Markets	49,742	2,788,043	0.03
Merrill Lynch	49,399	3,839,550	0.01
Interstate Group	46,338	1,534,908	0.03
Goldman Sachs	43,262	1,525,567	0.03
JP Morgan Chase & Company	37,487	2,381,441	0.02
William Blair & Company	36,093	1,183,611	0.03
Stephens	32,405	1,071,458	0.03
M Ramsey King Securities	28,303	1,138,521	0.02
Craig-Hallum	25,717	850,695	0.03
Jefferies & Company	22,915	839,792	0.03
Piper Jaffray & Company	22,201	740,918	0.03
JonesTrading Institutional Services	19,808	672,119	0.03
Liquidnet	19,138	683,174	0.02
CL King & Associates	17,834	579,793	0.03
Raymond James & Associates	15,819	503,586	0.03
Telsey Advisory Group	15,257	481,887	0.03
Penserra Securities	14,805	505,010	0.03
KeyBanc Capital Markets	14,433	489,794	0.03
SunTrust Robinson Humphrey	13,387	383,229	0.03
BNY Mellon	13,091	436,350	0.03
Morgan Stanley	9,792	360,727	0.03
Needham & Company	9,672	322,315	0.03
Mischler Financial Group	9,063	608,856	0.01
ROTH Capital Partners	8,348	278,278	0.03
Instinet	8,052	304,003	0.03
Sidoti & Company	7,458	149,155	0.05
Wells Fargo Advisors	7,446	247,801	0.03
Canaccord Adams	6,789	225,392	0.03
Northland Securities	6,371	212,372	0.03
RBC Capital Markets	6,115	333,848	0.03
Leerink Swann & Company	6,084	202,795	0.03
Citigroup Global Markets	5,713	298,916	0.03
JMP Securities	4,983	165,919	0.03
Deutsche Bank	4,813	150,246	0.03
Cowen & Company	4,803	156,339	0.03
Bloomberg Tradebook	4,671	155,667	0.04
Keefe, Bruyette & Woods	4,658	143,636	0.03
Dougherty & Company	4,453	148,425	0.03
Guzman & Company	4,343	403,057	0.01
First Analysis Securities	4,143	138,106	0.03
All Other Brokers	90,646	3,456,922	0.03
<b>Grand Totals, All Brokers</b>	<b>\$ 1,762,960</b>	<b>73,409,328</b>	<b>\$ 0.02</b>

## SUPPORTING SCHEDULES

**Top 50 Brokers and Total International Equity Investment Commissions  
For the Year Ended June 30, 2017**

Investment Brokerage Firm	2017		
	Commission	Shares Traded	Commission per Share
Instinet	\$ 181,797	23,346,640	\$ 0.01
Loop Capital Markets	172,419	21,539,674	0.01
UBS	156,185	17,457,137	0.01
North South Capital	146,029	4,943,833	0.03
Bank of New York ConvergeEx Execution	117,538	10,635,801	0.01
ITG (Investment Technology Group)	105,227	12,453,516	0.01
Goldman Sachs	82,275	12,275,293	0.01
Jefferies & Company	80,118	10,267,741	0.01
Deutsche Bank	75,229	7,617,518	0.02
BTIG (Bass Trading International Group)	69,220	3,510,315	0.02
CLSA	64,920	25,016,475	0.01
Citigroup Global Markets	62,076	8,648,447	0.01
Credit Suisse	47,213	5,350,687	0.01
Cheever & Company	45,323	4,526,882	0.01
M Ramsey King Securities	44,086	13,563,400	0.00
Penserra Securities	44,036	6,116,292	0.01
Morgan Stanley	32,503	7,044,824	0.01
Cabrera Capital Markets	27,737	3,729,621	0.01
Merrill Lynch	27,716	6,980,193	0.00
Northern Trust Securities	27,200	6,864,281	0.00
JP Morgan Chase & Company	25,766	2,322,102	0.02
Macquarie Securities	22,724	2,666,282	0.01
HSBC	17,848	3,911,818	0.01
Fig Group LLC	17,273	3,674,600	0.00
Cowen & Company	13,242	398,400	0.03
Bloomberg Tradebook	11,269	2,253,806	0.01
Weeden & Company	11,204	1,656,920	0.01
Exane	10,994	960,718	0.02
Barclays	10,829	727,487	0.01
Liquidnet	9,361	739,813	0.01
Pavilion Global Markets	8,861	302,000	0.03
Mischler Financial Group	8,565	1,332,031	0.00
Wallachbeth Capital	7,224	1,444,709	0.01
Sanford C. Bernstein	6,752	757,615	0.01
Tribal Capital Markets	5,718	1,354,500	0.00
Royal Bank of Canada	4,283	276,131	0.02
Mizuho Securities	4,223	194,000	0.02
Daiwa Securities Group	4,024	221,100	0.02
Cantor Fitzgerald	3,822	252,048	0.02
KCG Holdings	3,413	736,172	0.00
Societe Generale Securities	2,807	127,484	0.01
Scotia Capital	1,938	136,900	0.02
Sumitomo Mitsui Banking Corporation	1,923	416,400	0.00
Andes Capital Group	1,875	71,100	0.03
Divine Capital Markets	1,823	72,000	0.03
BMO Capital Markets	1,601	85,344	0.03
Knight Execution & Clearing Services	1,271	252,593	0.01
Williams Capital Group	1,141	260,219	0.00
Natixis Securities Americas	860	35,983	0.02
CastleOak Securities	821	24,020	0.03
All Other Brokers	8,069	1,677,601	0.00
<b>Grand Totals, All Brokers</b>	<b>\$ 1,840,371</b>	<b>241,230,466</b>	<b>\$ 0.01</b>

## SUPPORTING SCHEDULES

### Top 50 Brokers and Total Global Equity Investment Commissions For the Year Ended June 30, 2017

Investment Brokerage Firm	2017		
	Commission	Shares Traded	Commission per Share
Goldman Sachs	\$ 64,008	7,293,660	\$ 0.01
Morgan Stanley	63,252	7,645,583	0.01
UBS	50,692	7,534,837	0.01
JP Morgan Chase & Company	50,680	7,555,180	0.01
Bank of America	46,500	6,760,481	0.01
Citigroup Global Markets	46,004	4,367,489	0.01
Sanford C. Bernstein	44,848	5,017,582	0.04
Cheevers & Company	44,552	623,551	0.07
Credit Suisse	43,793	4,291,712	0.02
Loop Capital Markets	35,650	6,020,323	0.04
Deutsche Bank	35,460	4,163,956	0.01
Cabrera Capital Markets	32,855	1,591,979	0.02
Mischler Financial Group	30,293	1,392,000	0.02
Barclays	27,443	1,592,143	0.04
Telsey Advisory Group	26,645	746,534	0.04
Instinet	24,704	2,523,453	0.01
Jefferies & Company	22,934	1,983,167	0.02
Macquarie Securities	19,733	2,114,841	0.01
CLSA	17,897	4,521,239	0.01
Academy Securities	16,250	556,097	0.03
RBC Capital Markets	15,956	1,346,718	0.02
Nomura	14,785	2,414,488	0.01
Liquidnet	14,773	4,601,175	0.00
Exane	14,262	2,630,751	0.00
Merrill Lynch	13,349	8,660,551	0.00
Penserra Securities	11,931	205,404	0.06
ITG (Investment Technology Group)	10,925	4,900,543	0.00
CastleOak Securities	10,179	316,900	0.03
Autonomous Research	8,847	1,630,564	0.01
Redburn Partners	8,799	492,321	0.06
Drexel Hamilton	8,259	237,873	0.03
Evercore Partners	7,546	697,094	0.05
BMO Capital Markets	6,880	236,856	0.03
HSBC	6,681	1,438,357	0.01
Robert W. Baird & Company	6,634	171,822	0.04
Banco Itau	6,068	371,109	0.02
BTIG (Bass Trading International Group)	5,021	177,538	0.03
Guzman & Company	4,796	193,034	0.02
Wells Fargo Advisors	4,713	404,246	0.04
Daiwa Securities Group	4,580	329,687	0.03
Cowen & Company	4,472	108,949	0.04
Bank of America Securities	4,369	608,121	0.01
Mizuho Securities	4,175	175,209	0.02
CL King & Associates	4,121	117,766	0.03
Renaissance Capital	4,017	290,365	0.01
SMBC Nikko Securities	3,948	64,200	0.06
Virtu Financial Capital Markets	3,485	348,549	0.01
Sturdivant and Company	3,431	137,424	0.02
Kepler Capital Markets	3,396	171,265	0.02
Credit Agricole	3,141	2,134,168	0.00
All Other Brokers	87,707	6,082,441	0.01
<b>Grand Totals, All Brokers</b>	<b>\$ 1,055,439</b>	<b>119,991,295</b>	<b>\$ 0.01</b>

## SUPPORTING SCHEDULES

**Top 50 Brokers and Total Fixed Income Investment Brokerage  
For the Year Ended June 30, 2017**

	2017
Investment Brokerage Firm	Fair Value Traded
CastleOak Securities	\$ 1,324,940,275
Loop Capital Markets	893,689,610
Credit Suisse	803,905,659
Goldman Sachs	704,156,270
Barclays	670,363,043
JP Morgan Chase & Company	624,129,024
Citigroup Global Markets	574,065,695
Nomura	488,761,953
Morgan Stanley	331,739,678
Deutsche Bank	317,569,242
Wells Fargo Advisors	251,027,777
Bank of America	222,034,088
BNP Paribas	198,773,580
RBS Securities	160,227,005
Cabrera Capital Markets	126,025,687
Merrill Lynch	124,973,934
Mischler Financial Group	96,405,223
RBC Dain Rauscher	88,361,334
Jefferies & Company	77,067,994
Williams Capital Group	75,833,498
Drexel Hamilton	75,330,147
Citibank	66,972,312
BMO Capital Markets	59,256,505
HSBC	53,846,793
RBC Capital Markets	51,867,622
Bank of America Securities	48,787,979
UBS	48,310,089
Brean Capital	46,183,563
State Street Bank & Trust	45,048,274
FTN Financial Capital Markets	43,977,600
Mizuho Securities	38,719,726
MFR Securities	33,622,093
Amherst Securities Group	32,158,797
TD Securities	29,570,977
Royal Bank of Canada	29,277,885
ABN Amro	28,810,340
CAPIS (Capital Institutional Services)	27,572,408
Daiwa Securities Group	17,913,722
Robert W. Baird & Company	17,638,228
Societe Generale Securities	16,565,099
Mitsubishi UFJ Securities	15,589,939
BNY Mellon	15,134,120
Stifel, Nicolaus & Company	14,798,944
SunTrust Robinson Humphrey	14,454,334
KeyBanc Capital Markets	12,661,243
First Tennessee	11,924,122
MF Global	10,420,978
Ramirez & Company	9,994,400
SG Americas Securities	9,937,517
Royal Bank of Scotland	9,796,045
All Other Brokers	140,820,703
<b>Grand Totals, All Brokers</b>	<b>\$ 9,231,013,072</b>