# DIVERSIFYING

# INVESTMENT

Letter of Certification

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**SURS**2015



### LETTER OF CERTIFICATION

The Northern Trust Company 50 South La Salle Street Chicago, Illinois 60675 (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, 2014 through June 30, 2015.

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.
- 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 securities.
- 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.

By: Patricia Somerville-Koulouris, Vice President

### 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 21, 2015

Board of Trustees and Executive Director State Universities Retirement System 1901 Fox Drive Champaign, Illinois 61820

I am pleased to present the Investment Section of the State Universities Retirement System (SURS) Comprehensive Annual Financial Report (CAFR) for fiscal year 2015. SURS administers and oversees a large, public defined benefit investment program with assets currently approximating \$17.5 billion for the fiscal year ending June 30, 2015. In addition, the Self-Managed Plan (SMP), a defined contribution plan offered to members, continues to increase in size with assets of approximately \$1.8 billion.

SURS investment performance for the fiscal year ended June 30, 2015, returned 2.9%, net of investment management fees, which was consistent with the portfolio benchmark. This compares to fiscal year 2014 investment returns of 18.2%. All measurements shown have been calculated using standard performance evaluation methods and are presented in a manner that is consistent with investment industry standards. Investment performance is calculated using a time-weighted rate of return consistent with investment industry standards.

In fiscal year 2015, the System's funding ratio, based on plan net position as a percentage of total pension liability, decreased from 44.39% to 42.37%.

At the June 2014 meeting, at the recommendation of the actuary and the investment consultant, the Board of Trustees reduced the assumed rate of investment return from 7.75% to 7.25%. The rate of 7.75% had been utilized since fiscal year 2010. Prior to then, 8.5% had been the assumed rate since fiscal year 1997. Despite favorable longer-term investment performance exceeding the assumed rate of return, SURS funding ratio continues to lag many of its peers. This shortfall is due to inadequate funding from the State over time. However, it is encouraging to note that SURS received the full fiscal year 2015 annual statutory contribution of \$1,544.2 million in addition to the full fiscal year 2014, 2013, and 2012 annual statutory contributions. The funding received over the past several years has demonstrated a commitment by the legislature to assist in improving the underfunding status of SURS. We are hopeful these practices will continue going forward.

In 2013, SURS conducted a search for the general investment consultant relationship. The search process resulted in the selection of NEPC by the Board, effective November 1, 2013. Following the selection, NEPC and staff immediately began the preparation of an asset/liability study.

A critical duty of the SURS Board of Trustees is to develop, approve and implement an asset allocation strategy. These actions assist in achieving stable long-term investment returns and provide cash flow liquidity for benefit payments while maintaining a desired level of risk in the investment portfolio. The investment strategy is anchored by a comprehensive asset/liability study, which was conducted during fiscal year 2014. NEPC, with the assistance of SURS investment staff, presented the results, which were approved by the Board of Trustees in June 2014.

The outcomes of the study resulted in a modification of the investment strategy. As a means of reducing equity risk in the portfolio, additional strategies are being employed by reallocating a portion of assets to other investable areas. The plan approved includes additions to emerging market debt, hedged strategies and commodities, while maintaining the current allocation to private equity. The real estate allocation in the study

### REPORT OF INVESTMENT ACTIVITY

was increased to a 10% portfolio allocation. Searches were completed during the past year increasing the allocation towards target. Modifications to the portfolio are in progress and anticipated to be finalized over the upcoming twelve months.

Longer-term investment performance remains favorable. Over the past three-, five-, ten-, and twenty-year periods, the SURS portfolio has earned 11.0%, 11.2%, 7.1%, and 8.2% annualized rates of return, respectively, net of investment management fees. For longer time periods, the twenty-five and thirty-year portfolio returns are also strong, with returns of 8.3% and 9.2%, respectively.

### Outputs - Fiscal Year Ending June 30, 2015

The commitment to diversity at SURS remains constant. The allocation utilizing minority-, female-, and persons with a disability-owned investment managers is currently 25.9% of the SURS Investment Program, approximately \$4.5 billion in assets.

A three-year private equity funding plan was approved by the Board in fiscal year 2014 to continue investing in the asset class. The multi-year program was approved, \$850 million in total, with planned allocations of \$250 million for calendar year 2015, \$300 million for calendar year 2016 and \$300 million for calendar year 2017. Continuous investing is necessary to maintain the target allocation and vintage year diversification of the private equity portfolio. During the year, \$250 million in commitments were approved by the Board.

A three-year real estate funding plan was also approved by the Board in September 2014 to continue buildout of the asset class. The multi-year program of \$300 million in total was approved, with planned allocations of \$100 million for the 2015, 2016 and 2017 calendar years. During the year, the Board conducted searches and ultimately awarded \$195 million in commitments. A search will be conducted in late 2016 to identify commitments of the remaining \$105 million of the three-year plan.

SURS is continuously exploring avenues to more effectively monitor and manage the overall risk of the portfolio. During the past year, the public equity allocation has been reduced from 60% to 56%. The 56% public equity allocation provides slightly less than 90% of the overall portfolio volatility. When fully implemented, the asset allocation strategy approved by the Board is designed to reduce the target public equity exposure to a 50% level.

In summary, a number of key accomplishments were achieved during fiscal year 2015, several of which are documented below. The Investment Section of this report provides further information regarding the investment program.

- The defined benefit portfolio returned 2.9% for fiscal year 2015, net of investment management fees.
- Net position restricted for pensions is in excess of \$19.2 billion, with the SURS investment program maintaining its ranking as one of the largest 100 pension plans in the United States.
- Emerging Market Debt A search to identify qualified emerging market debt investment managers was completed.
- · Non-Core Real Estate A search to identify non-core real estate managers was conducted.
- Emerging Manager Real Estate A search to identify a firm to construct a portfolio of minority-, female-, and persons with a disability-owned funds was conducted.
- Hedge Fund-of-Funds A search to identify a hedge fund-of-funds program was initiated, to be finalized during fiscal year 2016.

### REPORT OF INVESTMENT ACTIVITY

- Private Equity Emerging Manager Fund-of-Funds The Board approved a search be conducted to identify
  a firm to construct a portfolio of private equity funds managed by minority-, female-, and persons with a
  disability-owned general partners for the years 2017 2019.
- SMP provider search A Request For Proposal (RFP) was released in May 2015 to identify two or more qualified SMP service providers. The process is expected to conclude during the fall of 2015.
- Commodities search A search to identify potential commodities was initiated and is expected to be completed during fiscal year 2016.
- Private Equity Asset Class During the year, \$250 million in additional commitments in domestic and global strategies were approved by the Board.
- Enhancement of Risk Management Oversight Practices Quarterly reporting from the custodian provides increased monitoring and oversight of financial risk within the SURS Investment Portfolio.
- The Self-Managed Plan (SMP) completed its seventeenth year of existence, currently exceeding \$1.7 billion in member assets. The SMP provides access to members of funds including a minority-owned investment firm as a fund choice option, which has been in place since the inception of the Plan in 1998.

SURS is continually addressing challenges and concerns regarding the funding status of the defined benefit plan. SURS is currently 42.4% funded as of June 30, 2015, and will pay approximately \$2.3 billion in benefit payments during fiscal year 2016. Favorable investment performance alone will not be sufficient to ease the existing funding gap. SURS interacts regularly with various stakeholders in an attempt to identify potential funding solutions for the state pension systems. For additional information regarding the investment program, the SURS Fiscal Year 2016 Investment Plan is posted on the SURS website.

The SURS investment program continues to operate effectively and efficiently during these volatile and challenging market conditions. The organization is pleased with the steady long-term investment performance, but realizes the necessity of adequate funding is ongoing. The Board of Trustees is committed to SURS membership to deliver an optimal, risk-controlled investment program with the objective of providing favorable long-term results.

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Sincerely,

Daniel L. Allen

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**

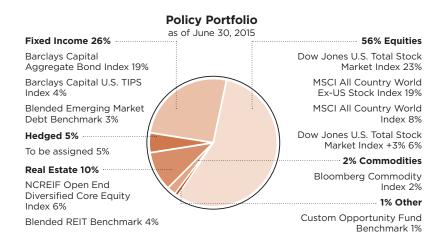
The investment policy of SURS provides an efficient allocation of assets to achieve overall risk and return objectives. Periodically, asset allocation studies are conducted and the results of these studies guide the setting of investment policy. An asset/liability study completed in June 2014 resulted 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:

- 23.0% invested in U.S. equities
- 19.0% in non-U.S. equities
- 8.0% in global equities
- 6.0% in private equities
- 19.0% in fixed income
- 4.0% in treasury inflation-protected securities (TIPS)
- 3.0% in emerging market debt
- 10.0% in direct real estate (through funds) and real estate investment trust securities (REITs)
- 2.0% in commodities
- 5.0% in hedged strategies
- 1.0% in the Opportunity Fund

These strategic asset allocation targets will be implemented over time to allow for proper diversification.

### **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 investment policy. The policy portfolio reflects a passive implementation of the investment policy. The strategic policy portfolio is comprised of the following benchmarks.



### INVESTMENT SUMMARY

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	Barclays Capital Aggregate Bond Index	19.0
TIPS	Barclays Capital U.S. TIPS Index	4.0
Emerging Market Debt	Blend of JP Morgan GBI-EM Global Diversified, JP Morgan EM	BI Global Diversified
	and JP Morgan Corporate Emerging Markets Bond Index - E	Broad 3.0
Direct Real Estate	NCREIF Open End Diversified Core Equity Index	6.0
REITs	Blend of Dow Jones U.S. Select Real Estate Securities Index	
	and FTSE EPRA/NAREIT Developed Index	4.0
Overlay/Commodities	Bloomberg Commodity Index	2.0
Hedged Strategies	To be assigned	5.0
Opportunity Fund	Custom benchmark of the combined investments	1.0
		100.0%

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.

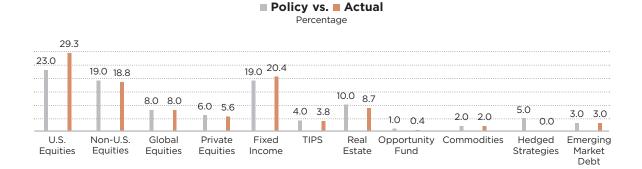
### **Investment Strategies**

### ■ 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, 2015, the System had retained the services of 51 investment management firms, several of which manage multiple mandates, and an additional 21 managers through the Progress Emerging Manager of Managers program, of which eight 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.

### ■ 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 implemented in the fiscal year and System cash flows. At year end, the fund was invested 68% in equities, 27% in fixed income, and 5% in direct real estate through funds, as compared with the target allocations of 68%, 26%, and 6%, respectively. Staff is gradually implementing the policy target allocations that were approved by the Board on June 13, 2014, through the strategic transition of assets among investment managers and planned searches.



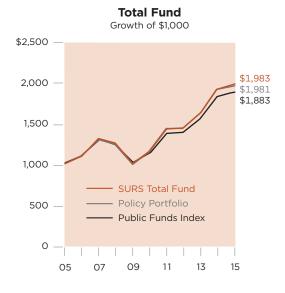
### **Long-Term Investment Results**

The 10-year period ended June 30, 2015, provided returns that have matched the overall benchmark. SURS total portfolio earned an annualized total return, net of all investment management expenses, of 7.1%. 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 \$1,983, while the same \$1,000 invested in the policy portfolio and median public funds index would have grown to \$1,981 and \$1,883, respectively.

### Fiscal Year 2015 Results

For the fiscal year ended June 30, 2015, SURS total fund returned 2.9%, matching the market goal, or policy portfolio. SURS' one-year return exceeded that of the median public pension fund return, as measured by the Investorforce Public DB > \$1 Billion Index, by 0.3%. For the period, six of the nine asset class portfolios, including U.S. equity, non-U.S. equity, global equity, direct real estate, REITs and the Opportunity Fund, met or exceeded the returns of their respective benchmarks. Strong absolute returns were experienced in U.S. equity, private equity, direct real estate and the Opportunity Fund.



		Fiscal Yea	ar Ended	June 30		А	nnualize	ed
	2011	2012	2013	2014	2015	3 YR	5 YR	10 YR
Total Fund								
SURS	23.8%	0.5%	12.5%	18.2%	2.9%	11.0%	11.2%	7.1%
Policy Portfolio	23.4	1.7	12.4	18.0	2.9	10.9	11.3	7.1
Public Funds Index	20.9	0.7	11.9	17.6	2.6	10.5	10.5	6.5
CPI-U	3.6	1.7	1.8	2.1	0.1	1.3	1.8	2.1
U.S. Equity								
SURS	33.8	2.9	21.9	24.8	7.6	17.9	17.7	8.2
Dow Jones U.S. Total Stock Market	32.4	4.0	21.5	25.0	7.2	17.6	17.5	8.3
Non-U.S. Equity								
SURS	31.2	(13.5)	15.0	22.4	(3.7)	10.7	9.0	5.5
MSCI All Country World Index Ex-U.S.	29.7	(14.6)	13.6	21.8	(5.3)	9.4	7.8	5.5
Global Equity								
SURS	29.9	(5.8)	15.1	24.3	2.7	13.7	12.5	6.3
Performance Benchmark	30.1	(6.5)	16.6	22.9	0.7	13.0	11.9	6.2
Private Equity (1)								
SURS	19.8	8.4	7.1	18.7	6.2	10.6	12.3	11.1
Dow Jones U.S. Total Stock Market + 3%	22.7	12.3	17.5	25.6	15.2	19.4	17.7	11.5
Fixed Income								
SURS	5.2	6.7	0.8	4.4	1.7	2.3	3.7	5.2
Performance Benchmark (3)	3.9	7.5	(0.7)	4.4	1.9	1.8	3.3	4.5
TIPS								
SURS	7.9	12.0	(4.4)	4.9	(2.4)	(0.7)	3.4	4.7
Performance Benchmark	7.7	11.7	(4.8)	4.4	(1.7)	(0.8)	3.3	4.1
Direct Real Estate (2)								
SURS	19.2	12.5	9.8	14.6	12.2	12.0	13.4	6.0
Performance Benchmark	19.0	13.6	9.7	13.5	11.1	11.4	13.3	6.0
Real Estate (REITs)								
SURS	34.7	7.2	10.1	14.1	1.7	8.5	13.0	6.2
Performance Benchmark	34.1	7.7	10.0	13.4	1.7	8.3	12.9	5.5
Opportunity Fund								
SURS	22.2	2.6	27.0	8.1	5.4	13.1	12.6	10.6
Performance Benchmark	11.0	10.3	6.2	1.5	5.0	7.0	8.4	4.9

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.

<sup>(1)</sup> Private equity 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.

<sup>(2)</sup> Direct real estate returns for both the portfolio and the benchmark are reported one quarter in arrears due to the length of the performance reporting cycle.

<sup>(3)</sup> Barclays Capital Universal Bond Index through March 2006; Barclays Capital Aggregate Bond Index since April 2006.

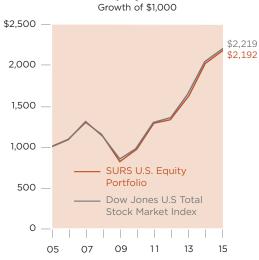
### **U.S.** Equities

For the fiscal year 2015, SURS U.S. equity portfolio returned 7.6%. SURS portfolio outperformed 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 7.2%. All segments of the U.S. equity market posted positive returns. Growth outperformed value stocks, while large cap outpaced small cap stocks. As a result of enhancements implemented from the 2011 Asset/Liability study conducted by the Investment Consultant, the portfolio currently maintains a slight bias 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 \$2,192 (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 \$2,219.

U.S. Equity Portfolio

F	Y 2015	3 YR	5 YR	10 YR
SURS	7.6%	17.9%	17.7%	8.2%
DJ U.S. TSM	7.2	17.6	17.5	8.3
DJ U.S. Large Cap TSM	7.4	17.5	17.4	8.1
DJ U.S. Large Cap Growth TSM	11.5	19.3	18.7	9.2
DJ U.S. Large Cap Value TSM	3.1	15.3	15.8	6.7
DJ U.S. Small Cap TSM	5.1	18.7	18.2	9.9
DJ U.S. Small Cap Growth TSM	1 6.5	20.0	19.4	10.7
DJ U.S. Small Cap Value TSM	3.8	17.5	16.9	9.1
S & P 500	7.4	17.3	17.3	7.9
Russell 3000	7.3	17.7	17.5	8.2
Russell 2000	6.5	17.8	17.1	8.4



TEN LARGEST U.S. EQUITY HOLDINGS (excludes commingled funds)	Shares	<b>Carrying Value</b>
Apple Inc	1,306,007	\$163,805,928
Microsoft Corp	1,734,830	76,592,745
Exxon Mobil Corp	831,146	69,151,347
Johnson & Johnson	634,960	61,883,202
Wells Fargo & Co	1,052,180	59,174,603
JP Morgan Chase & Co	805,588	54,586,643
Pfizer Inc	1,526,944	51,198,432
General Electric Co	1,908,353	50,704,939
Amazon.com Inc	106,636	46,289,621
Google Inc Class A	82,296	44,443,132

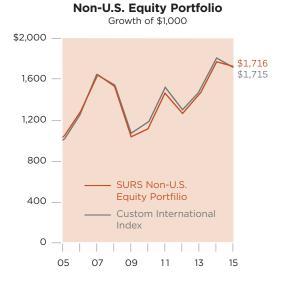
Note: A complete list of the portfolio holdings is available upon request.

### Non-U.S. Equities

For fiscal year 2015, SURS non-U.S. equity portfolio returned (3.7)%, surpassing its benchmark return by 1.6%. The non-U.S. equity portfolio performance benchmark, the Morgan Stanley All Country World Ex-US Index, fell 5.3% 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 \$1,716 (net of investment management expenses), while the same \$1,000 invested in the performance benchmark would have grown to \$1,715.

FY 2015 3 YR 5 YR 10 YR **SURS** (3.7)% 10.7% 9.0% 5.5% MSCI ACWI Ex-US (5.3)9.4 7.8 5.5 9.5 MSCI EAFE (4.2)12.0 5.1 MSCI Emerging Markets (5.1)3.7 3.7 8.1



TEN LARGEST NON-U.S. EQUITY HOLDINGS (excludes commingled funds)	Shares	<b>Carrying Value</b>
Allergan PLC (Ireland)	114,806	\$34,839,029
Diageo PLC (United Kingdom)	722,253	20,911,684
Sanofi (France)	201,636	19,824,249
Nestle SA (Switzerland)	261,674	18,900,000
AIA Group (Hong Kong)	2,777,200	18,180,199
GlaxoSmithKline PLC (United Kingdom)	836,555	17,399,471
Novartis AG (Switzerland)	173,740	17,131,391
Naspers Ltd (South Africa)	101,603	15,862,716
Medtronic PLC (Ireland)	199,977	14,818,296
BG Group (United Kingdom)	873,202	14,549,952

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

### **Global Equities**

SURS initially invested in global equities through its Opportunity Fund in 2002. A separate global asset class was created during fiscal year 2004. As the table indicates, SURS global equity portfolio surpassed its benchmark by 2.0% for the fiscal year, returning 2.7%. 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 \$1,850 (net of investment management expenses), while the same \$1,000 invested in the performance benchmark would have grown to \$1,827.

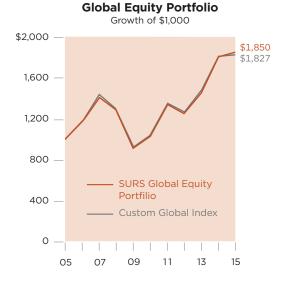
### FY 2015 3 YR 5 YR 10 YR SLIDS 2.7% 13.7% 12.5% 6.3% MSCI ACWI 0.7 13.0 11.9 6.4 MSCI World 1.4 14.3 13.1 6.4 Dow Jones 17.6 17.5 7.2 8.3 U.S. Total Stock Market MSCI EAFE 12.0 9.5 (4.2)5.1

(5.3)

9.4

7.8

5.5



### **Private Equities**

MSCI ACWI Ex-US

SURS private equity portfolio posted a positive return of 6.2% during fiscal year 2015. The portfolio's benchmark, the Dow Jones U.S. Total Stock Market Index +3%, returned 15.2%. As of June 30, 2015, the valuation of SURS private equity portfolio was \$0.977 billion, representing 5.6% of total plan assets. Since inception, the asset class has added significant value to the SURS investment program. Private equity is a challenging, and sometimes difficult asset class to benchmark.

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 has been diversified by a number of different measures which include vintage year, general partner groups and subasset 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 \$2.894 billion has been committed to these funds, and of this amount approximately \$2.254 billion has been invested. In addition, during this same period, SURS has received approximately \$2.736 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	2015	3 YR	5 YR	10 YR	Since Inception
SURS	6.2%	10.6%	12.3%	11.1%	21.1%
Performance Benchmark	15.2	19.4	17.7	11.5	13.4
(Dow Jones U.S. Total Sto	ock Ma	rket + 30	00 Basi	s Points	)

### Fixed Income

The SURS fixed income portfolio returned 1.7% for fiscal year 2015, trailing the 1.9% return of the portfolio's benchmark by 0.2%. The fixed income portfolio's benchmark is the Barclays Capital 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 23 of the past 27 fiscal years.

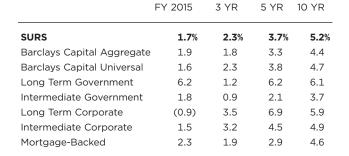
During fiscal year 2013, an asset structure analysis of the asset class was conducted. The restructuring process included the implementation of an unconstrained fixed income investment strategy into the portfolio as well as a rebalancing of the assets managed by the existing investment manager lineup. An allocation to emerging market debt was incorporated in to the SURS portfolio during fiscal year 2015.

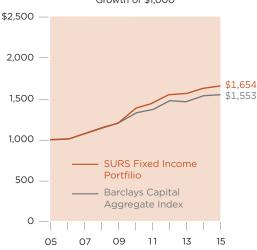
SURS fixed income portfolio is structured to capture the return of the broad market over the long term. Consequently, the returns from this portfolio will tend to track that of the broad fixed income market (Barclays Capital Aggregate Bond Index) over longer periods of time. As the table below indicates, SURS portfolio has consistently added value over each of the longer-term periods presented.

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 \$1,654 (net of investment management expenses), while the same \$1,000 invested in the portfolio's benchmark would have grown to \$1,553.

### **Fixed Income Portfolio**

Growth of \$1,000





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

Asset Description	S & P Rating	Interest Rate	Maturity Date	Par Value	Carrying Value
U.S. Treasury Inflation Index Notes	AA+	0.125	July 15, 2024	56,210,000	54,618,914
U.S. Treasury Inflation Index Notes	AA+	2.375	January 15, 2025	34,925,000	51,567,013
U.S. Treasury Inflation Index Notes	AA+	0.250	January 15, 2025	49,555,000	48,551,056
U.S. Treasury Inflation Index Notes	AA+	0.125	July 15, 2022	47,145,000	48,134,754
U.S. Treasury Inflation Index Bonds	AA+	1.750	January 15, 2028	37,460,000	47,921,576
U.S. Treasury Bonds	AA+	3.125	August 15, 2044	41,985,000	42,053,897
U.S. Treasury Inflation Index Bonds	AA+	2.000	January 15, 2026	30,710,000	42,022,568
U.S. Treasury Notes	AA+	2.500	May 15, 2024	41,210,000	41,915,062
U.S. Treasury Inflation Index Bonds	AA+	2.375	January 15, 2027	29,425,000	41,302,554
U.S. Treasury Bonds	AA+	2.750	August 15, 2042	43,765,000	40,718,562

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

### Treasury Inflation-Protected Securities (TIPS)

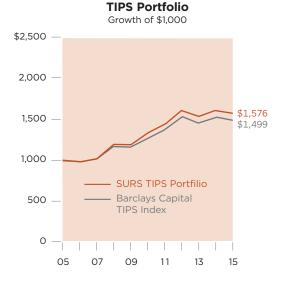
During 2004, the TIPS portfolios were transferred from the Opportunity Fund to a separate asset class. At June 30, 2015, TIPS accounted for a 3.8% allocation of the total fund. The TIPS portfolio returned (2.4)% for fiscal year 2015, lagging its Barclays Capital U.S. TIPS benchmark by 0.7%. The portfolio's three-, five-, and ten-year returns outpaced the annualized benchmark returns by 0.1%, 0.1%, and 0.6%, respectively.

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 \$1,576 (net of investment management expenses), while the same \$1,000 invested in the portfolio's benchmark would have grown to \$1,499.

FY 2015 3 YR 5 YR 10 YR

SURS (2.4)% (0.7)% 3.4% 4.7%

Performance Benchmark (1.7) (0.8) 3.3 4.1



### Real Estate

The SURS Board of Trustees adopted an asset allocation during fiscal year 2001 that created a 2% allocation to publicly traded real estate securities (REITs). During fiscal year 2005, the target allocation to the real estate asset class was increased to 6%, comprised of 4% REITs and 2% direct real estate through funds. Funding of the direct real estate allocation began at the conclusion of fiscal year 2006. During fiscal year 2007, an allocation to global REITs was approved as a component of the 4% REITs target allocation with initial funding commencing April 2007. The real estate asset class target allocation was subsequently increased to 10% during fiscal year 2009, to be comprised of 4% REITs and 6% direct real estate when fully invested. Implementation of the strategy is currently in progress.

Since its inception, a total of approximately \$1.037 billion has been committed to direct real estate funds, and of this amount approximately \$907 million has been invested. The direct real estate portfolio returned 12.2% for the fiscal year, outperforming its benchmark by 1.1%. The National Council of Real Estate Investment Fiduciaries (NCREIF) Open End Diversified Core Equity (ODCE) Index benchmark returned 11.1% 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.

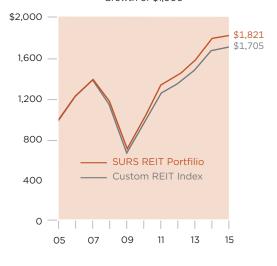
SURS total REITs portfolio increased 1.7% during the fiscal year, matching its benchmark, a blend of the Dow Jones U.S. Select Real Estate Securites Index and the FTSE EPRA/NAREIT Developed Index. The portfolio's three-, five-, and ten-year returns exceeded the benchmark return by 0.2%, 0.1%, and 0.7% on an annualized basis.

The accompanying chart indicates the growth of \$1,000 invested in the REITs market during the past 10 years. The ending points indicate that \$1,000 invested in SURS REITs portfolio would have increased to \$1,821 (net of investment management expenses), while the same \$1,000 invested in the performance benchmark would have grown to \$1,705.

## REITs Portfolio Growth of \$1,000

	FY 2015	3 YR	5 YR	10 YR
SURS	12.2%	12.0%	13.4%	6.0%
NCREIF ODCE Index	11.1	11.4	13.3	6.0

F	Y 2015	3 YR	5 YR	10 YR
SURS	1.7%	8.5%	13.0%	6.2%
Performance Benchmark	1.7	8.3	12.9	5.5
Dow Jones U.S. Select	5.3	8.7	14.4	6.7
Real Estate Securities				
FTSE EPRA/NAREIT	(0.4)	8.7	0.3	0.3
Developed Index				
FTSE EPRA/NAREIT	(3.4)	9.5	(1.0)	(1.0)
Developed Ex-US				



### **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, 2015, there was one type of investment in the portfolio: an infrastructure portfolio. SURS has committed \$80 million to the infrastructure portfolio.

The Opportunity Fund returned 5.4% during the fiscal year, surpassing its custom benchmark return by 0.4%. 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 2015	3 YR	5 YR 1	IO YR
SURS	5.4%	13.1%	12.6%	10.6%
Performance Benchmark	5.0	7.0	8.4	4.9

### Self-Managed Plan

Fiscal year 2015 marks the seventeenth complete year of the Self-Managed Plan (SMP). As of June 30, 2015, the SMP had accumulated plan assets of approximately \$1.75 billion. This represents an increase of \$169 million since the end of fiscal year 2014. Contributing to the growth in plan assets was a market-related increase, net of asset withdrawals, of approximately \$90 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 71% equity, 27% fixed income, and 2% real estate. This was a 1% decrease 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, 2015

	U.S. Equity !	Non-U.S. Equity	Fixed Income	Balanced	Real Estate	Tota
Fidelity Funds						
•	\$ -	\$ -	\$ 28,016,953	\$ -	\$ -	\$ 28,016,95
Spartan U.S. Bond Index Institutional	-	-	27,817,966	<u>-</u>	-	27,817,96
PIMCO Total Return Institutional	-	-	34,200,368	-	-	34,200,36
Fidelity Four In One Index	-	-	-	14,981,866	-	14,981,86
Fidelity Puritan Class K	-	-	-	189,959,962	-	189,959,96
Ariel Fund Institutional	31,325,938	-	-	-	-	31,325,93
American Beacon Large Cap Value Inst.	9,388,773	-	-	-	-	9,388,77
Buffalo Small Cap	14,496,377	-	-	-	-	14,496,37
Hartford Capital Appreciation Y	38,360,874	-	-	-	-	38,360,87
Fidelity Growth Company Class K	89,090,373	-	-	-	-	89,090,37
Spartan Extended Market Index Advantage	32,037,954	-	-	-	-	32,037,95
Fidelity Contrafund Class K	89,145,481	-	-	-	-	89,145,48
Fidelity Low Priced Stock Class K	44,893,540	-	-	-	-	44,893,54
Spartan Total Market Index Institutional	24,236,388	-	-	-	-	24,236,38
Spartan 500 Index Institutional	91,053,705		-	-	-	91,053,70
Fidelity Diversified International Class K	-	42,090,037	-	-	-	42,090,03
Spartan International Index Institutional	-	20,602,698 23,383,110	-	-	-	20,602,69
Fidelity Worldwide Fidelity Real Estate Investment	_	23,303,110	_	_	14,474,355	23,383,11 14,474,35
Fidelity Freedom K 2005 (1)	_	-	-	260,087	14,474,333	260,08
Fidelity Freedom K 2010 (1)				1,843,194	_	1,843,19
Fidelity Freedom K 2015 (1)	_	_		5,724,787	_	5,724,78
Fidelity Freedom K 2020 (1)	_	_		16,574,598	_	16,574,59
Fidelity Freedom K 2025 (1)	_	_	_	18,302,384	_	18,302,38
Fidelity Freedom K 2030 (1)	_	_	_	22,270,226	_	22,270,22
Fidelity Freedom K 2035 (1)	_	_	_	19,153,792	_	19,153,79
Fidelity Freedom K 2040 (1)	_	_	_	19,870,797	_	19,870,79
Fidelity Freedom K 2045 (1)	_	_	_	10,373,685	_	10,373,68
Fidelity Freedom K 2050 (1)	_	_	_	6,670,119	_	6,670,11
Fidelity Freedom K 2055 (1)	-	_	_	1,681,916	-	1,681,91
Fidelity Freedom K 2060 (1)	_	_	_	22,404	_	22,40
Fidelity Freedom K Income	-	-	_	2,025,354	-	2,025,35
Fidelity Total	464,029,403	86,075,845	90,035,287	329,715,171	14,474,355	984,330,06
TIAA-CREF Funds						59.5
CREF Money Market Account	_	_	19,483,246	_	_	19,483,246
TIAA Traditional Annuity	_	_	93,418,453	_	_	93,418,45
CREF Bond Market Account	_	_	44,398,454	_	_	44,398,45
CREF Inflation-Linked Bond Account	_	_	22,205,625	_	_	22,205,62
CREF Social Choice Account	_	_	,,	49,189,236	_	49,189,236
CREF Equity Index Account	73,022,631	_	_	-	_	73,022,63
CREF Growth Account (2)	389,426	_	_	-	-	389,420
CREF Stock Account	152,141,543	_	_	-	-	152,141,54
CREF Global Equities Account	-	52,211,338	_	-	-	52,211,338
TIAA Real Estate Account	_	-	-	-	11,659,567	11,659,56
TIAA-CREF Large-Cap Growth Index Institutio	n 88,115,236	-	-	-	-	88,115,236
TIAA-CREF Lifecycle Fund 2010 - Institutional	-	-	-	962,663	-	962,663
TIAA-CREF Lifecycle Fund 2015 - Institutional	-	-	-	3,455,880	-	3,455,880
TIAA-CREF Lifecycle Fund 2020 - Institutional	-	-	-	6,052,844	-	6,052,84
TIAA-CREF Lifecycle Fund 2025 - Institutional	-	-	-	7,440,709	-	7,440,709
TIAA-CREF Lifecycle Fund 2030 - Institutional	-	-	-	10,509,941	-	10,509,94
TIAA-CREF Lifecycle Fund 2035 - Institutional	-	-	-	9,702,096	-	9,702,096
TIAA-CREF Lifecycle Fund 2040 - Institutional	-	-	-	14,732,407	-	14,732,40
TIAA-CREF Lifecycle Fund 2045 - Institutional	-	-	-	5,980,601	-	5,980,603
TIAA-CREF Lifecycle Fund 2050 - Institutional	-	-	-	3,089,004	-	3,089,004
TIAA-CREF Lifecycle Fund 2055 - Institutional	-	-	-	916,862	-	916,862
TIAA-CREF Lifecycle Fund 2060 - Institutional	-	-	-	23,464	-	23,46
TIAA-CREF Lifecycle Retirement Inc - Institution		-	-	715,494	-	715,49
TIAA-CREF Total	313,668,836	52,211,338	179,505,778	112,771,201	11,659,567	669,816,720 40.59
CDAND TOTAL C	¢ 777 660 070	£170 007 4CT	#260 F44 06F	#442 4CC 770	#2C 477 000	#1 CF4 140 TO
GRAND TOTALS	\$ 777,698,239 47.0%	\$138,287,183 8.4%	\$269,541,065 16.3%	\$442,486,372 26.8%	\$26,133,922 1.6%	\$1,654,146,783 100.09
CMD Farfallows Danson (F)		1/4				
SMP Forfeiture Reserve (3)						7,686,41
SMP Disability Reserve (3)						86,399,199

<sup>1.</sup> As of June 30, 2015, 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.

2. 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.

3. 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, 2015 (\$ thousands)

Julie 30, 2013 (\$ tilousalius)		
	Market	
	Value	_
U.S. Equity Managers		
Northern Trust Asset Management	\$ 1,786,181	
RhumbLine Advisers	1,168,039	
CastleArk Management	120,928	
Channing Capital Management	125,968	
EARNEST Partners	108,676	
Fiduciary Management Associates	111,054	
Holland Capital Management	106,696	
Jacobs Levy Equity Management	325,661	
Lombardia Capital Partners	107,279	
Pacific Investment - StocksPlus	261,847	
Piedmont Investment Advisors	412,022	
Progress Emerging Managers	361,984	
T. Rowe Price	321,968	
Subtotal	5,318,303	
Subtotal	5,510,505	
Non-U.S. Equity Managers		
BTC Custom International Fund	1,299,667	
BTC Emerging Markets Fund	174,449	
Ativo Capital Management	133,069	
BTC International Alpha Tilts	467,662	
GlobeFlex Capital	218,726	
Herndon Capital Management		
·	159,421	
Progress Emerging Managers	185,492	
Pyramis Global Advisors	509,350	
Strategic Global Advisors	165,786	
Subtotal	3,313,622	
Global Equity Managers - Active		
	740 245	
Calamos Investments	340,245	
Mondrian Investment Partners	374,821	
T. Rowe Price	381,558	
Wellington Management	373,935	
Subtotal	1,470,559	
Private Equity Managers		
Adams Street Partners	132,765	
Adams Street 2015 Global Fund	100	
Adams Street 2014 Global Fund	20,137	
Adams Street 2013 Global Fund	32,616	
Adams Street 2012 Global Fund	38,316	
Adams Street 2009 Global Offering	79,719	
Adams Street 2008 Global Offering	84,222	
Adams Street 2007 Global Oppor Ptf	77,988	
Adams Street Global Oppor Secondary	5,861	
Adams Street Global Secondary Fund 5	8,071	
Adams Street 2004 Non-U.S. Fund	24,020	
Fairview Lincoln Fund I	10,540	
Muller and Monroe ILPEFF	9,397	
Muller and Monroe MPEFF	15,583	
Pantheon Europe Fund III	21,384	
Pantheon Europe Fund VI	28,823	
•		
Pantheon Europe Fund VII	19,060	
Pantheon Multi-Strategy Program 2014	6,156	
Pantheon Global	508	
Pantheon Global Secondary Fund II	6,492	
Pantheon USA IX	49,196	
Pantheon USA VIII	89,998	
Pantheon Ventures, Inc.	244,681	
Subtotal	1,005,633	

### **INVESTMENT ALLOCATION**

# Defined Benefit Plan Investment Allocation June 30, 2015 (\$ thousands)

June 30, 2015 (\$ thousands)		
	Market	
	Value	
Fixed Income Managers		
Cash	211,314	
State Street Global Advisors	405,861	
Chicago Equity Partners	320,059	
Garcia Hamilton & Associates	99,558	
LM Capital Group	152,051	
Neuberger Berman	320,288	
Pacific Investment	443,870	
Pacific Investment Unconstrained	439,628	
Progress Emerging Managers	135,829	
Pugh Capital Management	152,657	
Smith Graham & Company	98,210	
Taplin Canida & Habacht	129,548	
TCW Metropolitan West Asset Mgmt	482,853	
Subtotal	3,391,726	
Treasury Inflation-Protected Securities		
Longfellow Investment Management	164,571	
New Century Advisors	162,830	
Pacific Investment - U.S. TIPS	328,266	
Subtotal	655,667	
Emerging Market Debt		
BlueBay Emerging Markets Select Debt	170,428	
Colchester Local Markets Debt Fund	101,086	
Progress Emerging Managers	68,012	
Prudential Emerging Markets Debt Blend	172,214	
Subtotal	511,740	
Direct Real Estate	70.445	
Dune Real Estate Parallel Fund II	32,445	
Dune Real Estate Fund III	45,896	
Franklin Templeton EMREFF	56,144	
Franklin Templeton FTPREF	30,102	
Heitman America Real Estate Trust	164,600	
JPMCB Strategic Property Fund	171,188	
Mesirow MFIRE II	41,071	
RREEF America III Fund	9,651	
RREEF West Funds	144	
UBS Trumbull Property Fund	327,233	
Subtotal	878,474	
Real Estate Investment Securities		
BTC U.S. Real Estate Securities Index	127.016	
CBRE Clarion Real Estate Securities	123,016 145,316	
BTC Developed Real Estate Index		
	266,425	
CBRE Clarion Real Estate Securities Subtotal	<u>102,881</u> 637,638	
Subtotal	037,030	
Cash Overlay		
Parametric Clifton	123,572	
Subtotal	123,572	
Infrastructure Managers		
Alinda Capital Partners	44,778	
Macquarie Infrastructure Partners II	28,653	
Macquarie Infrastructure Partners III	6,077	
Subtotal	79,508	
	-,	
SMP Forfeiture/Disability Reserves (B)	(94,085)	
· · · · · ·		
TOTAL FUND	\$ 17,292,357(A)	

<sup>(</sup>A) Amount includes net pending transactions of (\$178,042) and accrued investment income receivable of \$42,333.

<sup>(</sup>B) These assets are commingled with the SURS defined benefit plan investments.

# Top 50 Brokers and Total Domestic Equity Investment Commissions For the Year Ended June 30, 2015

	2015		
Investment Brokerage Firm	Commission	Shares Traded	Commission per Share
Loop Capital Markets	\$ 215,264	10,407,809	\$ 0.02
ITG (Investment Technology Group)	112,068	17,412,493	0.02
Cheevers & Company	92,697	3,294,431	0.03
Williams Capital Group	90,442	4,204,842	0.03
Bank of New York ConvergEx Execution	75,109	2,082,887	0.03
Credit Suisse	73,103	2,579,078	0.04
Goldman Sachs	72,937 57,633		0.03
Cabrera Capital Markets	57,633 57,476	3,031,425	0.03
		2,317,281	0.03
Barclays CastleOak Securities	57,152	2,806,227	0.03
Interstate Group	43,231 41,597	1,416,578	0.03
		1,313,381	0.03
JP Morgan Chase & Company	40,636	1,465,095	
Robert W. Baird & Company	40,588	1,155,152	0.04
William Blair & Company	33,151	1,076,514	0.03
M Ramsey King Securities	28,732	1,097,394	0.03
BTIG (Bass Trading International Group)	28,719	1,009,845	0.03
Liquidnet	25,890	1,458,173	0.02
Stifel, Nicolaus & Company	25,348	755,223	
Northern Trust Securities	23,260	2,325,960	0.01
Craig-Hallum	20,567	686,835	0.03
Stephens	20,040	652,428	0.03
Piper Jaffray & Company	19,130	603,013	0.03
Merrill Lynch	18,679	607,710	0.05
Strategas Research Partners	18,434	614,483	0.03
Guzman & Company	18,242	1,633,751	0.02
Andes Capital Group	17,080	433,194	0.04
Sturdivant and Company	16,227	646,724	0.03
Cantor Fitzgerald	15,675	518,084	0.03
Jefferies & Company	15,581	565,660	0.03
Morgan Stanley	14,839	489,540	0.03
Indiana Merchant Banking and Brokerage	14,500	374,149	0.04
Valdes & Moreno	14,114	318,209	0.04
Abel/Noser	12,856	291,256	0.04
Keefe, Bruyette & Woods	11,708	342,729	0.04
Citigroup Global Markets	11,187	601,200	0.03
Sanford C. Bernstein	10,780	402,178	0.04
Oppenheimer & Company	9,692	309,829	0.03
JonesTrading Institutional Services	9,639	378,673	0.03
Topeka Capital Markets	9,618	327,756	0.03
Instinet	9,466	450,562	0.02
Needham & Company	9,327	285,645	0.03
Northland Securities	8,760	272,481	0.03
Wedbush Morgan Securities	8,463	254,045	0.03
Knight Execution & Clearing Services	8,211	576,240	0.02
KeyBanc Capital Markets	8,092	248,562	0.03
CAPIS (Capital Institutional Services)	8,069	229,435	0.04
CL King & Associates	7,568	244,322	0.03
Drexel Hamilton	7,208	203,600	0.04
RBC Capital Markets	7,172	334,994	0.03
North South Capital	6,583	235,556	0.03
All Other Brokers	163,721	5,455,846	0.03
Grand Totals, All Brokers	\$ 1,713,158	80,798,477	\$ 0.02

# Top 50 Brokers and Total International Equity Investment Commissions For the Year Ended June 30, 2015

	2015		
Investment Brokerage Firm	Commission	Shares Traded	Commission per Share
Long Control Module	¢ 100.770	70,000,001	
Loop Capital Markets UBS	\$ 199,376 139,368	30,668,621	\$ 0.01 0.01
Cheevers & Company	132,352	19,652,090 18,235,170	0.01
Goldman Sachs	110,314	12,098,106	0.01
Bank of New York ConvergEx Execution	104,007	15,283,095	0.01
North South Capital	90,229	3,708,964	0.02
Deutsche Bank	80,584	10,767,944	0.02
Jefferies & Company	66,468	3,428,015	0.02
M Ramsey King Securities	62,948	5,312,000	0.01
Credit Suisse	60,357	4,196,473	0.02
Cabrera Capital Markets	57,910	10,804,015	0.01
Instinet	57,288	4,662,223	0.01
ITG (Investment Technology Group)	47,037	4,910,472	0.01
Calyon	45,335	1,229,723	0.04
Penserra Securities	42,835	5,400,444	0.01
Citigroup Global Markets	40,421	4,624,949	0.01
BTIG (Bass Trading International Group)	37,878	3,803,491	0.01
Northern Trust Securities	34,743	6,809,793	0.01
Merrill Lynch	32,850	2,405,569	0.02
JP Morgan Chase & Company	30,532	2,185,351	0.01
Bloomberg Tradebook	30,496	3,111,161	0.01
Morgan Stanley	28,480	3,213,918	0.01
Exane	26,078	1,187,047	0.02
HSBC	18,775	601,104	0.04
CLSA	18,150	7,671,088	0.01
Macquarie Securities	17,980	3,207,505	0.01
Daiwa Securities Group	17,321	4,300,582	0.00
Royal Bank of Canada	14,941	635,356	0.02
Bank of America	8,594	127,260	0.01
Sanford C. Bernstein	7,990	503,566	0.02
Societe Generale Securities	7,460	285,649	0.03
Barclays	6,890	297,978	0.02
Liquidnet	5,739	829,502	0.01
Cantor Fitzgerald	5,008	160,811	0.03
Mizuho Securities	4,396	229,312	0.02
BNP Paribas	4,380	110,700	0.04
Keefe, Bruyette & Woods	3,426	134,126	0.03
Williams Capital Group	3,287	252,176	0.01
China International Capital	3,107	306,000	0.01
CIMB-GK Securities	2,958	1,911,300	0.00
DBS Vickers Securities	2,819	849,900	0.00
Wallachbeth Capital	2,694	538,737	0.01
TD Securities	2,040	92,400	0.02
Credit Lyonnais	1,905	169,000	0.01
CIBC (Canadian Imperial Bank of Commerce)	1,581	72,800	0.02
Knight Execution & Clearing Services	1,363	206,951	0.01
Joh. Berenberg, Gossler & Company	1,306	58,189	0.02
Investec Securities	1,297	173,029	0.01
Vandham Securities	1,101	64,100	0.02
CAPIS (Capital Institutional Services)	1,027	10,000	0.10
All Other Brokers	16,529	1,511,797	0.01
Grand Totals, All Brokers	\$ 1,741,950	203,009,552	\$ 0.01

# Top 50 Brokers and Total Global Equity Investment Commissions For the Year Ended June 30, 2015

	2015		
Investment Brokerage Firm	Commission	Shares Traded	Commission per Share
Citigroup Global Markets	\$ 84,468	10,880,030	\$ 0.01
JP Morgan Chase & Company	80,629	10,303,041	0.01
Cabrera Capital Markets	76,586	2,584,606	0.04
Bank of America	72,193	9,647,808	0.01
Goldman Sachs	69,468	6,962,178	0.01
Morgan Stanley	59,868	7,295,163	0.01
UBS	56,677	9,720,397	0.01
Loop Capital Markets	54,093	3,256,664	0.03
Credit Suisse	50,378	6,821,019	0.01
Deutsche Bank	47,802	4,592,259	0.02
Jefferies & Company	39,672	3,081,657	0.03
Sanford C. Bernstein	34,920	4,098,369	0.03
Telsey Advisory Group	31,048	892,615	0.03
HSBC	28,621	2,273,335	0.01
Macquarie Securities	25,834	3,891,066	0.01
Williams Capital Group	20,069	569,637	0.01
Merrill Lynch	19,172	2,617,894	0.01
Drexel Hamilton	18.689	533,975	0.03
Barclays	18,016	1,590,068	0.03
CLSA	17,432	1,440,250	0.02
Bloomberg Tradebook	16,848	828,059	0.03
•			0.02
M Ramsey King Securities RBC Capital Markets	16,202	536,484	0.03
	15,753	1,235,844	
ITG (Investment Technology Group)	14,024	3,001,728	0.01
Academy Securities Exane	11,825	396,208	0.03
	10,981	367,782	0.04
Credit Agricole	10,717	2,179,825	0.01
Nomura	10,227	2,259,435	0.01
CastleOak Securities	10,103	290,116	0.03
CL King & Associates	8,567	232,340	0.04
Instinet	8,405	696,053	0.01
Danske Bank	7,357	189,813	0.04
Daiwa Securities Group	6,133	264,900	0.04
Blaylock Robert Van	4,282	115,900	0.04
Mizuho Securities	4,152	247,015	0.02
Redburn Partners	4,138	127,006	0.03
Liquidnet	4,023	922,513	0.00
BMO Capital Markets	3,968	117,885	0.04
Keefe, Bruyette & Woods	3,851	72,154	0.05
Kempen & Company	3,810	91,936	0.04
Autonomous Research	3,608	294,748	0.01
Canaccord Genuity Canada	3,381	152,207	0.02
Cheevers & Company	3,230	88,170	0.04
CF Global Trading	3,170	31,000	0.10
International KBR Finance	3,017	32,485	0.09
Wells Fargo Advisors	2,972	222,590	0.04
Evercore Partners	2,851	212,500	0.03
Investec Securities	2,818	1,754,149	0.00
Banco Itau	2,779	262,700	0.01
Stifel, Nicolaus & Company	2,769	125,530	0.04
All Other Brokers	82,491 	7,709,567	0.01
Grand Totals, All Brokers	\$ 1,194,087	118,110,673	\$ 0.01

# All Brokers and Total REIT Investment Commissions For the Year Ended June 30, 2015

	2015		
Investment Brokerage Firm	Commission	Shares Traded	Commission per Share
- Investment Brokerage Firm	COTTITUDE 101	naaca	————
Cheevers & Company	\$ 58,402	1,297,830	\$ 0.05
UBS	13,889	2,100,767	0.01
Merrill Lynch	10,487	722,282	0.02
JP Morgan Chase & Company	9,905	936,246	0.01
Green Street Advisors	7,589	186,334	0.04
Morgan Stanley	6,995	1,092,124	0.01
Citigroup Global Markets	6,984	1,253,335	0.01
Deutsche Bank	3,788	219,867	0.02
Macquarie Securities	3,659	731,388	0.01
Credit Lyonnais	3,140	630,175	0.00
Barclays	2,951	115,950	0.05
Goldman Sachs	2,338	181,545	0.01
RBC Capital Markets	2,304	78,450	0.04
Stifel, Nicolaus & Company	2,246	91,683	0.05
Raymond James & Associates	2,208	76,290	0.05
Jefferies & Company	2,201	140,926	0.03
Wells Fargo Advisors	1,941	63,740	0.05
BMO Capital Markets	1,857	54,700	0.04
Daiwa Securities Group	1,693	53,330	0.03
Credit Suisse	1,492	330,078	0.00
Exane	1,290	11,936	0.11
Robert W. Baird & Company	918	35,770	0.05
ABN Amro	772	6,077	0.13
KeyBanc Capital Markets	771	17,130	0.05
Oppenheimer & Company	730	16,220	0.05
Evercore Partners	704	17,600	0.04
CIBC (Canadian Imperial Bank of Commerce)	627	13,800	0.05
Instinet	607	47,449	0.01
Societe Generale Securities	570	7,652	0.18
Sumitomo Mitsui Banking Corporation	567	14,562	0.04
Kempen & Company	506	3,755	0.13
Standard Chartered	474	145,600	0.00
MKM Partners	347	12,607	0.03
Mizuho Securities	341	7,224	0.05
JMP Securities	333	7,410	0.05
Cowen & Company	237	5,270	0.05
Sandler O'Neil and Partners	141	3,140	0.05
Mitsubishi UFJ Securities	95	2,433	0.04
Genuity Capital Markets	92	2,500	0.04
Commonwealth Securities	77	8,852	0.01
DBS Vickers Securities	72	20,400	0.00
ABG Securities	69	3,000	0.00
Moelis & Company	21	2,687	0.02
ISI Group	7,058	254,670	0.05
Grand Totals, All Brokers	\$ 163,488	11,024,784	\$ 0.01

# Top 50 Brokers and Total Fixed Income Investment Brokerage For the Year Ended June 30, 2015

Investment Brokerage Firm	2015 Market Value Tradeo
CastleOak Securities	\$ 2,171,023,74
Barclays	1,271,563,649
Citigroup Global Markets	788,047,368
Loop Capital Markets	736,976,912
Goldman Sachs	727,512,739
Nomura	625,248,574
JP Morgan Chase & Company	608,883,646
Credit Suisse	597,571,143
Deutsche Bank	580,228,509
Morgan Stanley	462,901,934
Bank of America	418,313,908
Wells Fargo Advisors	337,310,873
Lebenthal & Company	222,801,750
Jefferies & Company	214,540,324
RBS Securities	185,814,982
Merrill Lynch	174,596,331
Daiwa Securities Group	161,071,819
Citibank	154,927,708
Cabrera Capital Markets	138,965,004
Mizuho Securities	123,385,936
UBS	112,764,061
Royal Bank of Scotland	110,127,403
Royal Bank of Canada	108,776,273
HSBC	107,018,918
BNP Paribas	102,029,338
Banco Santander	82,345,059
Ramirez & Company	73,489,981
SG Americas Securities	47,000,644
Bank of New York ConvergEx Execution	40,026,209
Bank of Nova Scotia	39,603,214
First Tennessee	38,682,429
RBC Capital Markets	35,107,644
Mischler Financial Group	29,926,343
Danske Bank	25,431,846
CAPIS (Capital Institutional Services)	23,487,227
TD Securities	23,370,905
Cantor Fitzgerald	22,509,053
Stephens	17,194,279
MFR Securities	16,038,608
Williams Capital Group	14,806,274
Arbor Trading Group	12,083,797
BB&T	11,075,387
US Bancorp	10,911,242
UniCredit Banca Mobiliare S.p.A.	10,754,426
Credit Agricole	10,522,178
Skandinaviska Enskilda Banken	10,162,353
Sterne Agee & Leach	9,919,669
BNY Mellon	9,716,100
Scotia Capital	8,959,91
Mitsubishi UFJ Securities	8,905,844
All Other Brokers	167,291,696
Grand Totals, All Brokers	\$ 12,041,725,159

# Top 50 Brokers and Total TIPS Investment Brokerage For the Year Ended June 30, 2015

Investment Brokerage Firm	2015 Market Value Traded
Barclays	\$ 210,156,055
Deutsche Bank	111,467,792
Societe Generale Securities	87,567,958
RBS Securities	72,371,514
TD Securities	67,603,634
Morgan Stanley	65,071,946
Citigroup Global Markets	63,276,313
CastleOak Securities	54,102,268
BNP Paribas	37,886,232
Credit Suisse	25,910,961
Goldman Sachs	25,888,393
Banca IMI Securities	24,320,541
UBS	23,236,582
Merrill Lynch	22,961,570
Nomura	22,649,865
JP Morgan Chase & Company	21,606,183
Jefferies & Company	17,998,380
Bank of America	17,430,936
Drexel Hamilton	16,375,292
ANZ Securities	15,951,531
Loop Capital Markets	15,898,548
Mesirow Financial	13,917,474
Cabrera Capital Markets	12,205,327
HSBC	9,512,769
Banco Santander	7,165,580
Royal Bank of Scotland	5,929,328
Scotia Capital	5,533,759
Westpac Group	5,313,357
RBC Dain Rauscher	3,270,572
Ramirez & Company	3,140,418
Wells Fargo Advisors	3,062,355
Credit Agricole	1,789,049
Banco Bilbao Vizcaya	1,375,569
SG Americas Securities	1,231,768
Mizuho Securities	1,214,272
BMO Nesbitt Burns	1,056,419
GMP Securities	756,771
First Tryon Securities	754,212
Imperial Capital	666,281
CIBC (Canadian Imperial Bank of Commerce)	528,287
Royal Bank of Canada	360,747
First Ballantyne	347,016
UniCredit Banca Mobiliare S.p.A.	298,143
Sierra Pacific Securities	239,010
Robert W. Baird & Company	214,031
Lloyds	210,041
Incapital Securities	155,604
SumRidge Partners	140,977
Commerzbank	129,002
Citibank	119,723
All Other Brokers	4,952
Grand Totals, All Brokers	\$1,100,375,307