

LASERS  
*2015 Annual Investment Report*

**Numbers** are all around us. They define our lives. It seems there is a number associated with just about everything. A number important to you may mean nothing to someone else. It is context that makes them important. **LASERS** numbers speak for themselves....

**8.35%**  
30-year  
Actuarial  
Return

**\$2.9b**  
Asset  
growth over  
last decade

**68**  
Years in  
existence

**\$3.5b**  
Funds  
managed  
internally

**\$96.3m**  
Invested in  
Louisiana

**3.5%**  
Cost of  
benefits once  
UAL is  
eliminated

**14**  
Asset classes  
invested in

**50**  
Countries  
invested in

**145,665**  
Members  
served

**21**  
10-year  
percentile  
ranking

# LASERS by the numbers

- FY 2015 Actuarial Return was 10.6%
- Ten Year Public Plan Ranking was in the Top 21%
- Invested over \$96.3 Million in Louisiana Companies
- Internally Managed over \$3.5 Billion in Assets

## Country Allocation (traditional assets)



Americas



Africa/Middle East

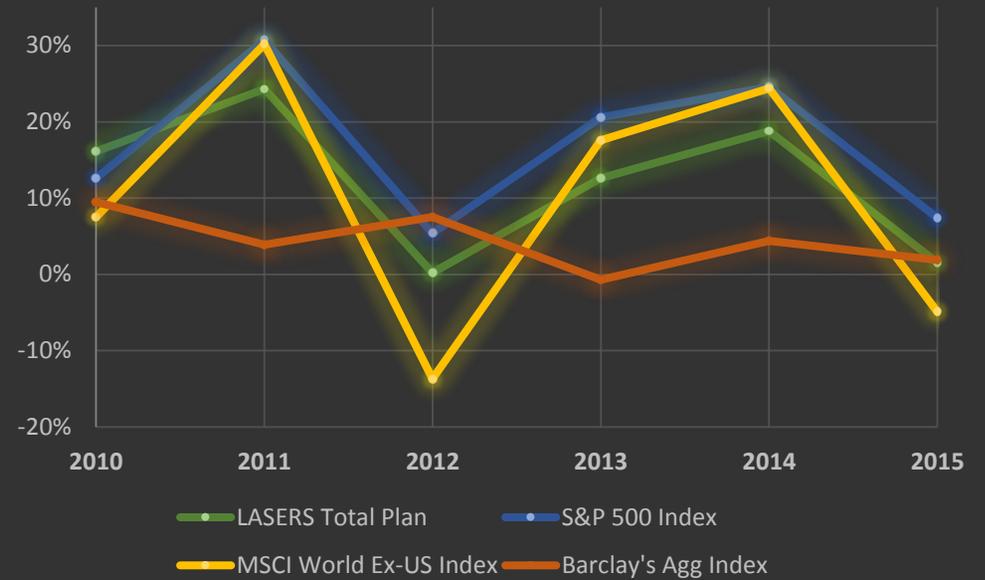


Europe

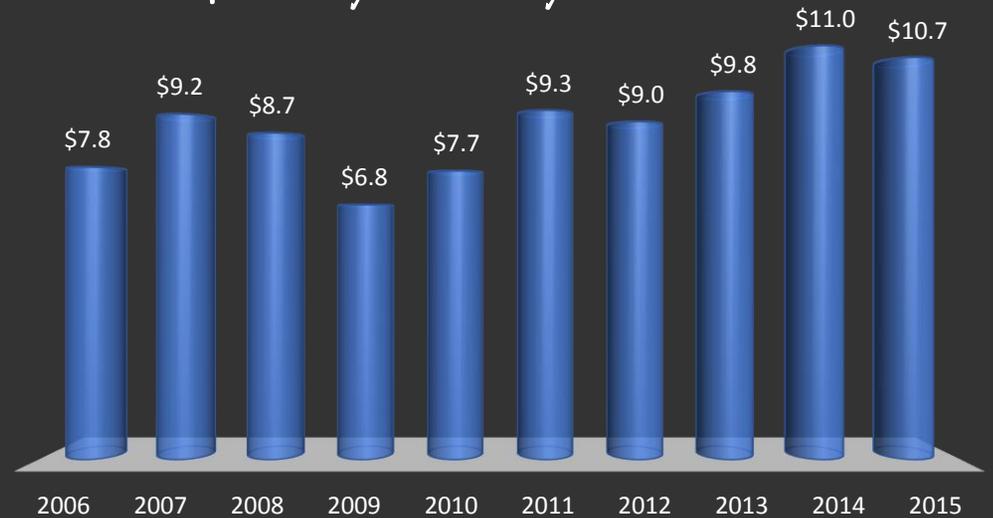


Asia/Pacific Basin

## Annualized Returns



## Growth of the Portfolio (in billions)



## Membership Data

145,665  
Total



52,193  
Terminated - Nonvested



40,194  
Active Members



39,352  
Regular Retirees



5,834  
Survivors



3,953  
Terminated - Vested



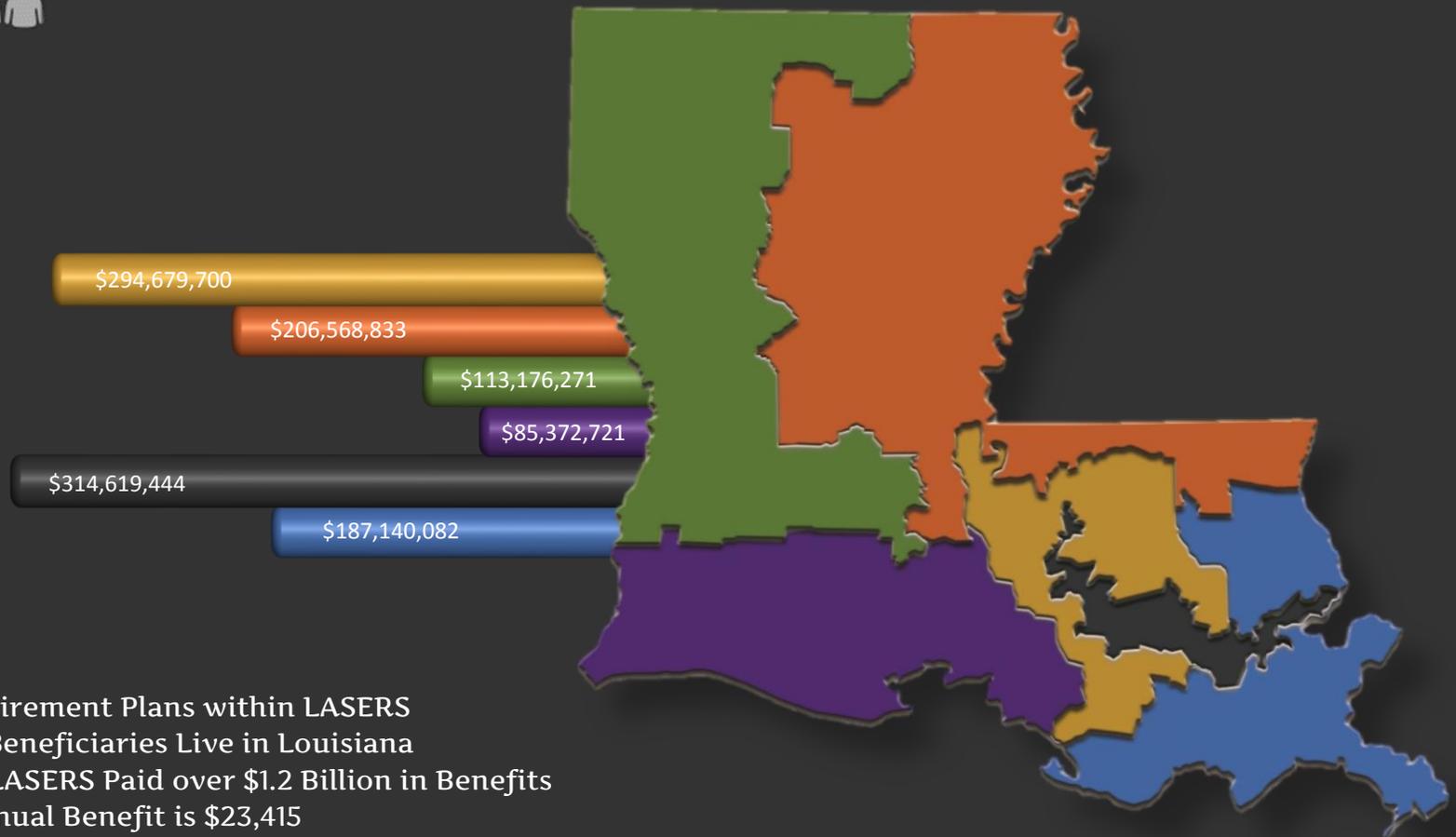
2,457  
Disability Retirees



1,682  
DROP Participants



## Gross Benefits Paid by Region



- There are 25 Retirement Plans within LASERS
- 93% of LASERS Beneficiaries Live in Louisiana
- During FY 2015 LASERS Paid over \$1.2 Billion in Benefits
- The Average Annual Benefit is \$23,415

# Board of Trustees



**Thomas Bickham**  
Board Chair  
Active Member  
Department of Public  
Safety & Corrections



**Connie Carlton**  
Retired Member  
Retired from LASERS



**Beverly Hodges**  
Active Member  
Department of Natural  
Resources



**Judge William Kleinpeter**  
Active Member  
City Court of Port Allen



**Janice Lansing**  
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Coastal Protection &  
Restoration Authority



**Barbara McManus**  
Retired Member  
Retired from Department of  
Social Services



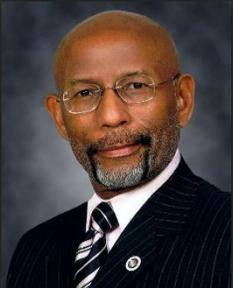
**Lori Pierce**  
Active Member  
Department of the  
Treasury



**Kathy Singleton**  
Retired Member  
Retired from Department of  
Social Services



**Shannon Templet**  
Active Member  
Department of State  
Civil Service



**Senator Elbert Guillory**  
Ex Officio Member  
Chairman of the Senate  
Retirement Committee



**State Treasurer  
John Kennedy**  
Ex Officio Member  
Department of the Treasury



**Commissioner  
Kristy Nichols**  
Ex Officio Member  
Division of Administration



**Representative  
Kevin Pearson**  
Ex Officio Member  
Chairman of the House  
Retirement Committee

# To Our Members

This was a volatile year due to abounding global concerns in financial markets. International equities, most notably emerging market equities, had the largest impact on performance. For the fiscal year ending June 30, 2015, LASERS investment portfolio realized a market rate of return on investment assets of 1.7%. This year's actuarial rate of return was 10.6%

LASERS compares itself against other public pension plans with market values greater than \$1 billion in the Trust Universe Comparison Service, with a focus on long-term results. In extended time periods, LASERS ranked in the top forty-fifth percentile for both the three- and five-year time periods, the thirty-fourth percentile for the seven-year period, and the twenty-first percentile for the ten-year period.

As always, LASERS maintains its commitment to a broadly diversified portfolio and achieving its actuarial target rate of return of 7.75% with the least amount of risk. Carefully underwritten and conservative assumptions for future expected returns have been adopted, and the investment portfolio is structured to optimize the risk/return trade-off.

During the fiscal year, LASERS continued to work toward its ongoing goal of comprehensively monitoring the plan's investments in relation to

current market environments. No significant changes were made to the plan's asset allocation during the fiscal year ended June 30, 2015. LASERS continues its practice of optimizing investments by analyzing the market environment and making adjustments when opportunities present themselves. To this regard, in the upcoming fiscal year there will be changes made in real assets and fixed income spaces.

The Investment Division continuously seeks to be a premier pension plan by creating, implementing, and evaluating its strategic goals and objectives. We strive to be a plan that is forward thinking, disciplined, and efficient. This includes continuously looking to lower overall investment costs while maintaining a high degree of expertise.

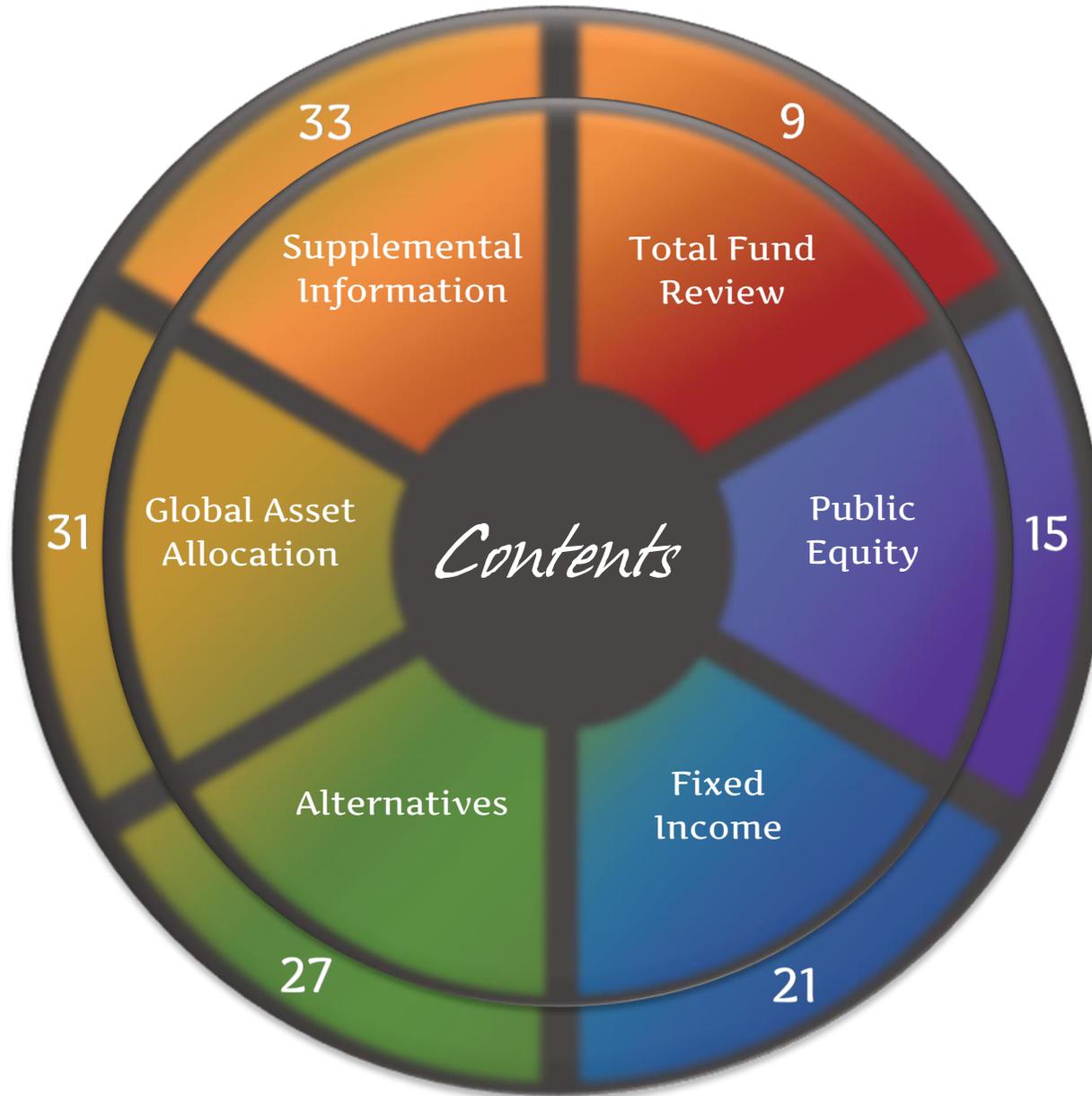
Going forward, we are committed to improving upon what we have already achieved and diligently working toward the future. We continue to believe that LASERS is well positioned to meet its long-term goals and objectives.

Sincerely,



Robert W. Beale, CFA, CAIA  
Chief Investment Officer







*Total Fund Review*

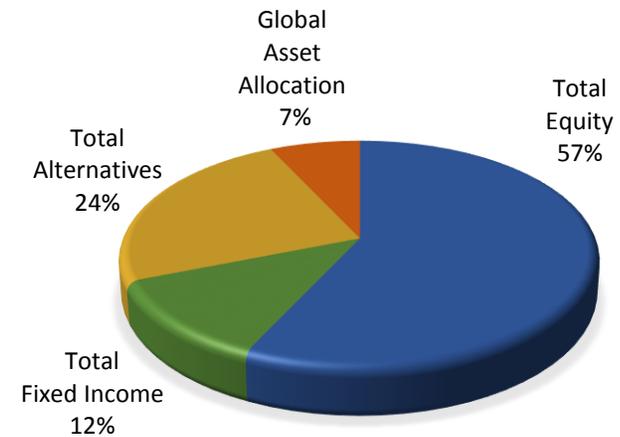
As of June 30, 2015, the Total Plan had a market value of assets of \$10,745.9 million. The gross of fee return for fiscal year end was 1.7%. The three- and five-year annualized returns were 10.8% and 11.1%, respectively. The total portfolio has grown nearly \$3 billion over the last decade.

### Asset Allocation

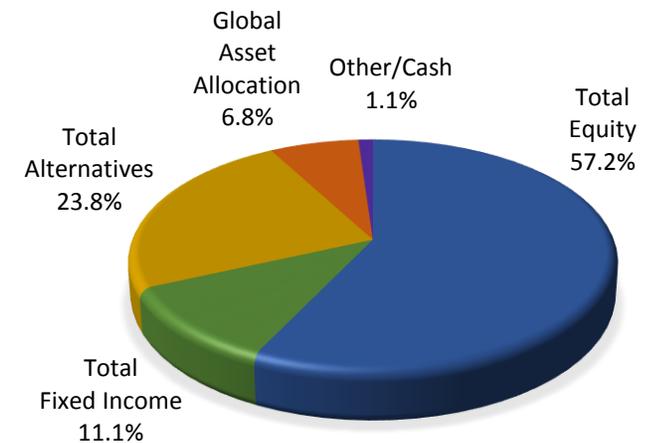
LASERS target allocation is determined after a comprehensive annual study that is conducted by internal staff in conjunction with LASERS external investment consultant, NEPC. Key inputs into the study include historical returns, relative value, and the likelihood of mean reversion. Risk budgeting and scenario analysis are tools used in the study. The primary focus of the asset allocation is to maintain a broadly diversified portfolio while achieving the target rate of return with the least possible amount of risk. LASERS asset allocation remained unchanged during the fiscal year.

LASERS has embarked on a long term strategic planning process with the main goal focused on increasing returns and reducing costs. To this end, LASERS has continued to utilize passive (index) management in both the domestic and international equity asset classes.

### Target Allocation



### Actual Allocation



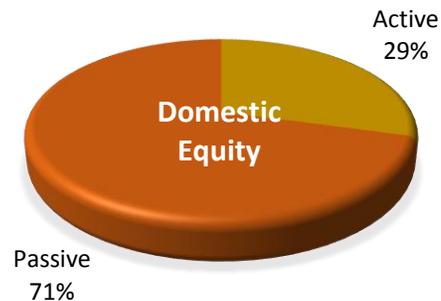
At fiscal year end 2015, LASERS staff managed nearly one-third of the plan assets within five funds – three domestic equity (S&P 500, S&P 400, and S&P 600) and two international equity (MSCI World Ex-USA and Terror-Free) portfolios. These index funds are representative of the U.S. domestic equity market and the core international equity market. The Terror-Free fund was created in response to LA R.S. 11:316 and is representative of the international large cap market but refrains from holding companies that have facilities in a prohibited nation (Iran, North Korea, Sudan, or Syria as defined by LA R.S. 11:312).

The benefits of internally managing these index funds are two-fold: LASERS can efficiently gain exposure to the asset class while saving millions of dollars in investment management fees. During the fiscal year, LASERS was able to save over \$9 million through this cost-saving method.

### Asset Allocation by Asset Class

	Market Value (\$millions)	Percent of Total Plan
<b>Equity</b>		
Domestic Equity	\$2,980.5	27.7%
International Equity	3,167.0	29.5%
<b>Total Equity</b>	<b>\$6,147.5</b>	<b>57.2%</b>
<b>Fixed Income</b>		
Domestic Fixed	1,046.7	9.7%
Emerging Market Debt	148.9	1.4%
<b>Total Fixed Income</b>	<b>\$1,195.6</b>	<b>11.1%</b>
<b>Alternatives</b>		
Private Equity	1,332.7	12.4%
Absolute Return	973.8	9.1%
Real Assets	246.9	2.3%
<b>Total Alternatives</b>	<b>\$2,553.4</b>	<b>23.8%</b>
<b>Total Global Asset Allocation</b>	<b>\$735.6</b>	<b>6.8%</b>
<b>Total Other/Cash</b>	<b>\$113.8</b>	<b>1.1%</b>
<b>Total Funds Allocated</b>	<b>\$10,745.9</b>	<b>100.0%</b>

### Active vs. Passive Management



### Market Overview

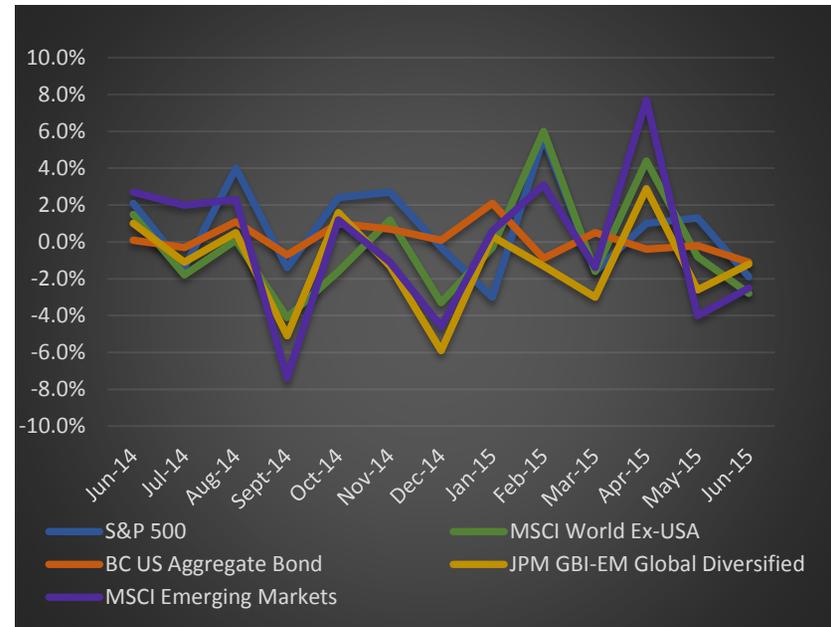
Following a double-digit return for fiscal year end 2014, this year saw volatility resurface. All asset classes were affected, to the degree that every major index experienced six or more negative one-month period returns out of the twelve. Given that, U.S. equities were able to earn a 7.4% return for the one-year period ending June 30, 2015, while international equities saw a decline of 4.3%. U.S. fixed income produced mostly positive, yet modest, returns, while global fixed income and emerging market debt saw steep declines.

The Federal Reserve Bank continued to taper quantitative easing and held interest rates steady at near zero, although anticipation of a rate increase was present. M&A activity during the first half of 2015 was particularly robust and consumer confidence was growing. Although the Eurozone came under pressure as the Greek debit crisis escalated, Europe, in aggregate, delivered positive growth.

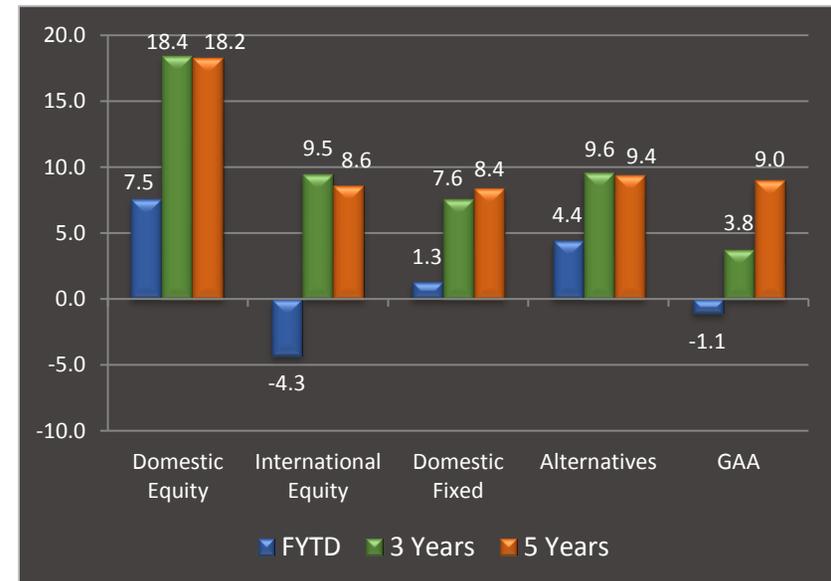
### Performance

For the fiscal year ending June 30, 2015, the total plan returned 1.7%. Domestic equities and fixed income produced positive returns while international equities and debt saw the opposite. U.S. equities had the strongest performance, followed by absolute return strategies and U.S. fixed income.

### Major Indices - Fiscal Year Performance



### Asset Class - Fiscal Year End Returns



LASERS aims to have the Total Plan return meet or exceed the Allocation Index return and the Policy Index return. The Allocation Index return measures the success of the Plan's current allocation/active management whereas the Policy Index return measures the success of the Plan's target allocation. LASERS accomplished this goal during the first three quarters of the current fiscal year as well as during the one-, three-, and five-year time periods.

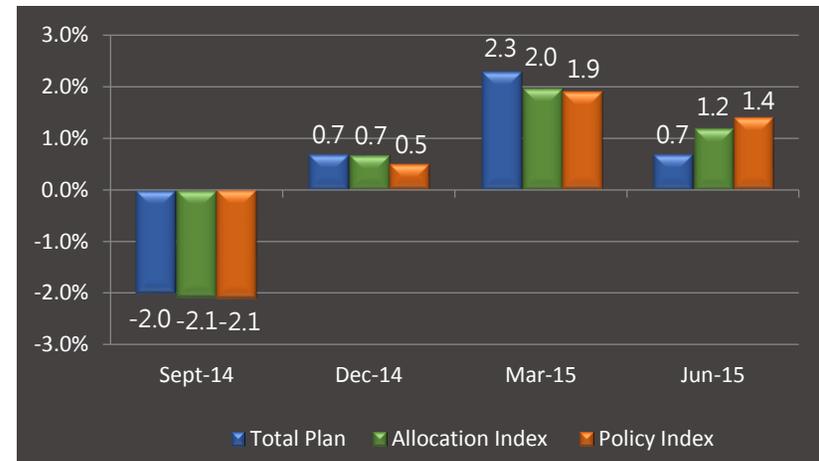
### Volatility

The Sortino ratio is used to analyze the volatility in LASERS portfolio. The Sortino ratio measures the risk-adjusted return of an individual portfolio by calculating the excess return per unit of risk, with downside volatility as the measure of risk. As of fiscal year end 2015, LASERS ranked above median in both the seven- and ten- year time periods.

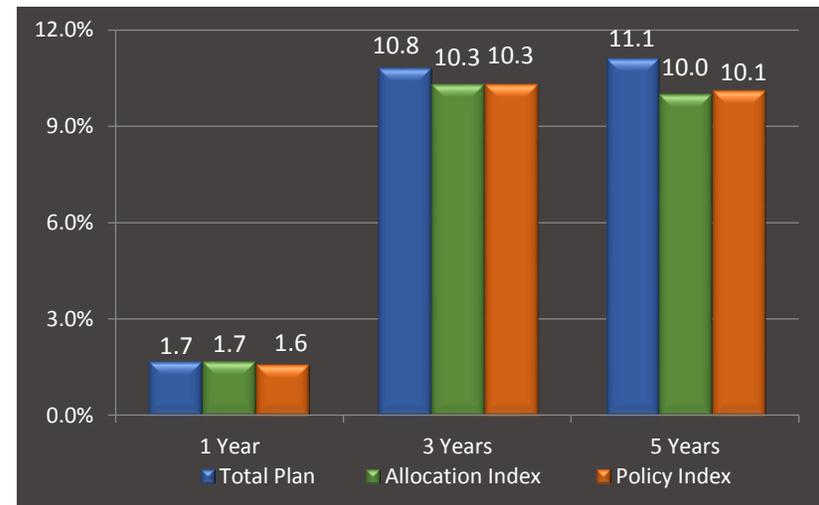
### Ranking Against Peers

LASERS uses TUCS (Trust Universe Comparison Services) rankings to compare itself to a universe of large pension plans to help gauge performance. TUCS provides a universe comparison of market returns for the larger public pension plans in the United States. The 1.7% return for the 2014-2015 fiscal year placed LASERS ranking in the eighty-fifth percentile of other plans with assets exceeding \$1 billion. In the more meaningful, longer-term 10-year period, LASERS ranked in the top twenty-first percentile.

### Quarterly Returns During Fiscal Year



### Annual Returns as of Fiscal Year End



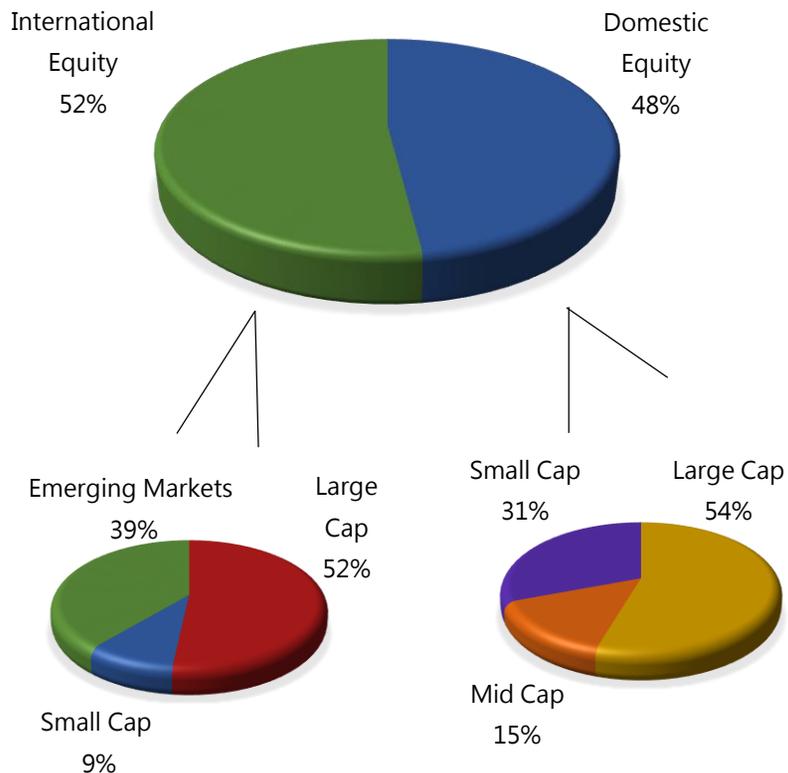


*Public Equity*

As of June 30, 2015, the Public Equity portfolio had a market value of \$6,147.6 million, representing 57.2% of the Total Plan. Within the Public Equity Program, \$2,980.5 million, or 27.7% of the Total Plan, was allocated to domestic equity and \$3,167.0 million, or 29.5% of the Total Plan, was allocated to international equity.

LASERS managed nearly one-third of those assets internally. There were three internally managed domestic portfolios: the S&P 500, S&P 400, and S&P 600, and two internally managed international equity portfolios: the MSCI World Ex-USA and Terror-Free international funds.

### Equity Allocation

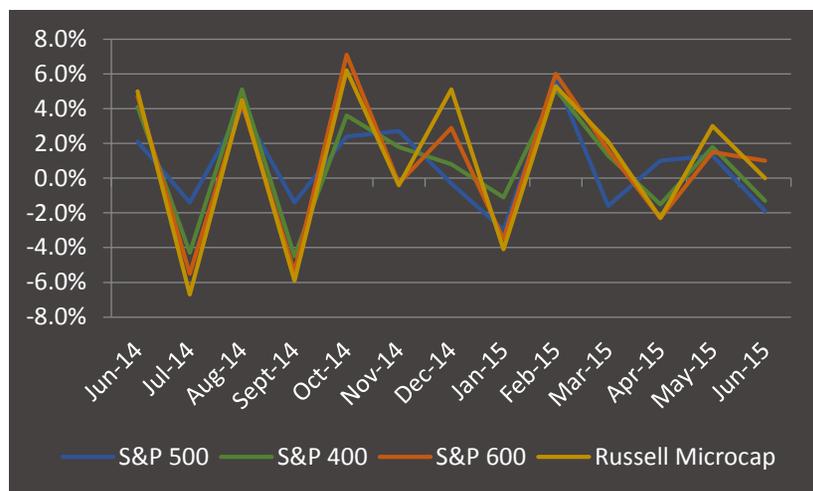


### Domestic Equity Market Overview

U.S. Equity markets pressed through dicey market conditions, rising 7.4%, as measured by the S&P 500 Index, in the fiscal year ended June 30, 2015. In the context of plummeting oil prices and resurgent volatility – a generally unfelt sensation in markets for the past two years – investors dumped U.S. equities in the first quarter of the fiscal year. Before closing out the calendar year, domestic stocks enjoyed a bounce back benefiting from perceived safety against oil prices in free fall and a loss of global momentum. By mid-year, investors seemed to have digested the Fed’s message, brushing off uncertainty around the bank’s rate-rising intentions and readying themselves to move forward on the strength of the U.S. economy, which was well positioned relative to even slower global growth. Finally, the fourth quarter’s unimpressive, drab-seeming results belied a tug-of-war story that culminated in flat or modest outcomes.

Within U.S. equities, the market rose across all capitalizations, with large cap stocks showing a slight edge over small caps. Style spreads continued to favor growth over value stocks. Names in the health care sector dominated, gaining 26%, and energy stocks suffered, losing 24%. Risk also played a factor; the least volatile stocks outperformed their more volatile counterparts. Ultimately, the fiscal year confirmed that U.S. assets can continue to advance despite the return of volatility, which has been absent from investors’ experience in recent years.

## Domestic Equity During Fiscal Year



## Domestic Equity - Results

The domestic equity allocation remained unchanged at 27% during the 2014-2015 fiscal year. The allocation consists of 15% to Large Cap and 12% to Small/Mid Cap. The internally-managed (passive) domestic equity program totaled \$2,106.8 million, and represented nearly 71% of the domestic equity portfolio at the end of the fiscal year. Four domestic equity managers actively manage five portfolios.

## Domestic Equity - Allocations and Returns

	Target Allocation	Actual Allocation	FYTD Return
Large Cap	15%	15.2%	7.5%
Mid Cap	4%	4.1%	6.4%
Small Cap	8%	8.4%	7.9%
<b>TOTAL</b>	<b>27%</b>	<b>27.7%</b>	<b>7.5%</b>

## Domestic Equity Managers

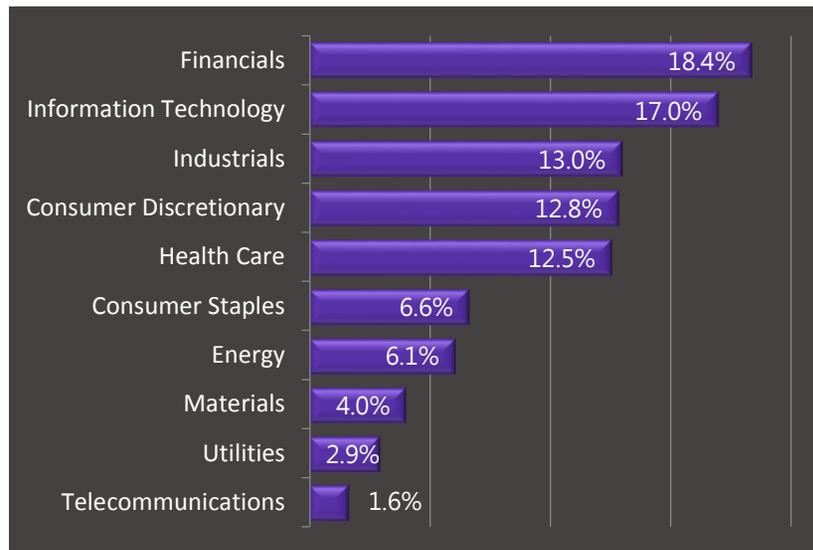
Manager	Mkt Value (\$M)	Benchmark
Aronson Johnston & Ortiz	284.9	S&P 500 Value
<b>Large Cap Value</b>	<b>284.9</b>	
Rice Hall James	292.4	S&P 600 Growth
<b>Small Cap Growth</b>	<b>292.4</b>	
Thompson Horstman Bryant	114.2	S&P 600 Value
LSV Asset Management	144.7	
<b>Small Cap Value</b>	<b>258.9</b>	
Thompson Horstman Bryant	37.5	Russell Microcap
<b>Microcap</b>	<b>37.5</b>	
LASERS S&P 400 Index	436.1	S&P 400
LASERS S&P 500 Index	1,344.3	S&P 500
LASERS S&P 600 Index	326.4	S&P 600
<b>Index Funds</b>	<b>2,106.8</b>	
<b>TOTAL</b>	<b>\$2,980.5</b>	

The total domestic equity allocation earned 7.5% for the fiscal year, with each sub-class contributing positive returns. The top three sectors in the domestic equity portfolio were Financials, Information Technology, and Industrials.

## Domestic Equity - Top Holdings

Security Name	Market Value
Apple Inc.	55,993,482.75
Exxon Mobil Corp.	34,894,080.00
JP Morgan Chase & Co.	30,748,132.80
Microsoft Corp.	26,030,840.00
Johnson & Johnson	25,317,184.20
Pfizer Inc.	25,195,112.60
Verizon Communications	22,813,264.50
Citigroup Inc.	21,654,080.00
General Electric Co.	19,513,008.00
Wells Fargo & Co.	19,205,960.00
<b>TOTAL</b>	<b>\$281,365,144.85</b>

## Domestic Equity - Sector Diversification

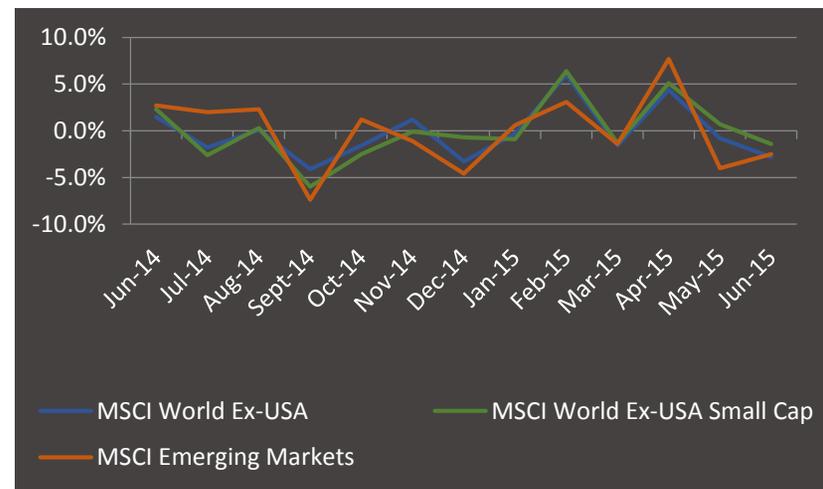


## International Equity - Market Overview

Over the twelve months ended June 30, 2015, equity markets produced strong local currency returns. However, significantly weak currencies held back U.S. dollar returns, and the MSCI World Ex-USA Index fell 4.9%. In Emerging Markets, similar situations were present, and the MSCI Emerging Markets Index dropped 4.8%.

Overall returns were held back in the second half of 2014, with diverging central bank policies across the world weakening most international currencies. This was further impacted by political risk in the Ukraine, the Middle East, and uncertainty over Greece. Returns recovered in 2015, however, driven by generally better economic data in Europe as well as the launch of quantitative easing there. After the strong start to 2015, elevated concerns over the outcome of Greece's debt negotiations and bond market volatility weighed on equity markets in the final few days of June.

## International Equity During Fiscal Year



### International Equity - Results

The international equity allocation remained unchanged at 30% during the 2014-2015 fiscal year. The allocation consists of 15% to Large Cap, 3% to Small Cap, and 12% to Emerging Markets. The internally managed (passive) international equity program totaled \$1,399.9 million and represented 44.2% of the international equity portfolio at the end of the fiscal year. There were four international equity managers actively managing six portfolios.

### International Equity - Allocation and Returns

	Target Allocation	Actual Allocation	FYTD Return
Large Cap	15%	15.3%	-4.7%
Small Cap	3%	2.8%	-1.8%
Emerging Markets	12%	11.4%	-4.5%
<b>TOTAL</b>	<b>30%</b>	<b>29.5%</b>	<b>-4.3%</b>

The top three countries in LASERS international developed markets portfolio were the United Kingdom, Japan, and Switzerland. Within the emerging markets portfolio, China, Taiwan, and Korea were the top three countries. For the fiscal year, all areas of the international equity space posted negative returns which resulted in the total international equity allocation earning -4.3%.

### International Equity Managers

Manager	Mkt Value (\$M)	Benchmark
Mondrian Investment Partners	238.9	MSCI World Ex-USA Value
<b>Large Cap Value</b>	<b>238.9</b>	
LASERS MSCI World-Ex-USA	1,365.2	MSCI World Ex-USA
<b>Large Cap Growth</b>	<b>1,365.2</b>	
LASERS Terror-Free Index	34.7	MSCI World Ex-USA
<b>Terror-Free</b>	<b>34.7</b>	
Mondrian Investment Partners	299.9	MSCI World Ex-USA Small Cap
<b>Small Cap</b>	<b>299.9</b>	
City of London	358.3	MSCI World Ex-USA
LSV Asset Management	689.2	Ex-USA
Westwood Global	180.9	Emerging Mkts
<b>Emerging Markets</b>	<b>1,228.4</b>	
<b>TOTAL</b>	<b>\$3,167.1</b>	

### Top 10 Developed Holdings

Security Name	Market Value
Nestle SA	29,799,168.05
Novartis AG	28,426,630.78
Sanofi	19,636,462.73
Roche Holdings	18,867,476.32
BP Plc	18,356,207.78
Toyota Motor Corp.	18,113,434.96
Glaxosmithkline	17,737,496.56
HSBC Holdings	15,877,823.35
SAP SE	14,333,124.06
Banco Santander	14,047,300.43
<b>Total</b>	<b>\$195,195,125.02</b>

### Top Countries

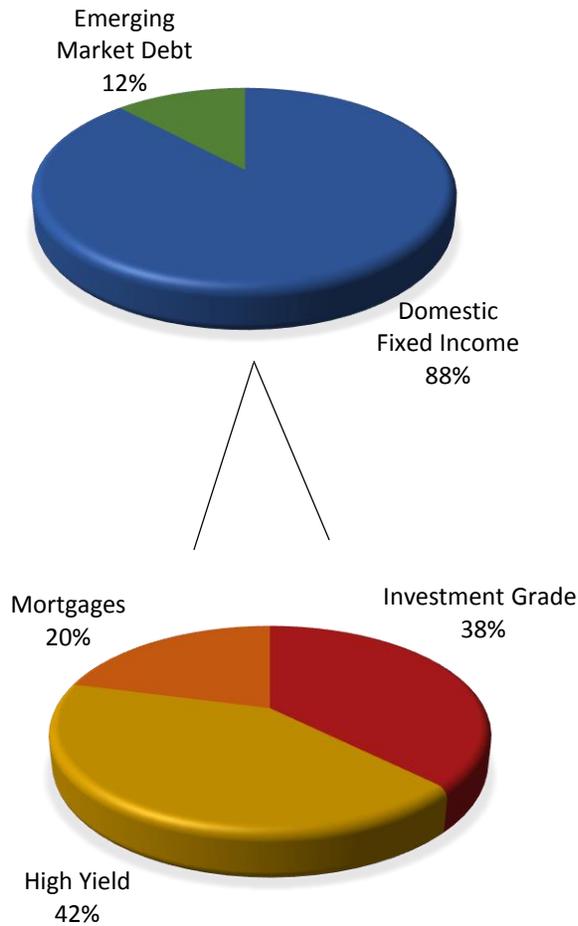
Developed Markets	Emerging Markets
United Kingdom	China
Japan	Taiwan
Switzerland	Korea
Germany	India
France	Brazil
Spain	South Africa
Singapore	Mexico
Netherlands	Asia
Israel	South Korea
Sweden	Russia

An abstract background featuring a white grid of lines overlaid on a dark, reflective surface. Various colorful geometric shapes, including circles, triangles, and rectangles in shades of orange, purple, blue, and yellow, are scattered across the scene, creating a dynamic and modern aesthetic.

## *Fixed Income*

As of June 30, 2015, the Fixed Income portfolio had a market value of assets of \$1,195.6 million, representing 11.1% of the total plan. Within the Fixed Income Program, \$1,046.7 million, or 9.7% of the total plan, was allocated to domestic fixed income and \$148.9 million, or 1.4% of the total plan, was allocated to emerging market debt.

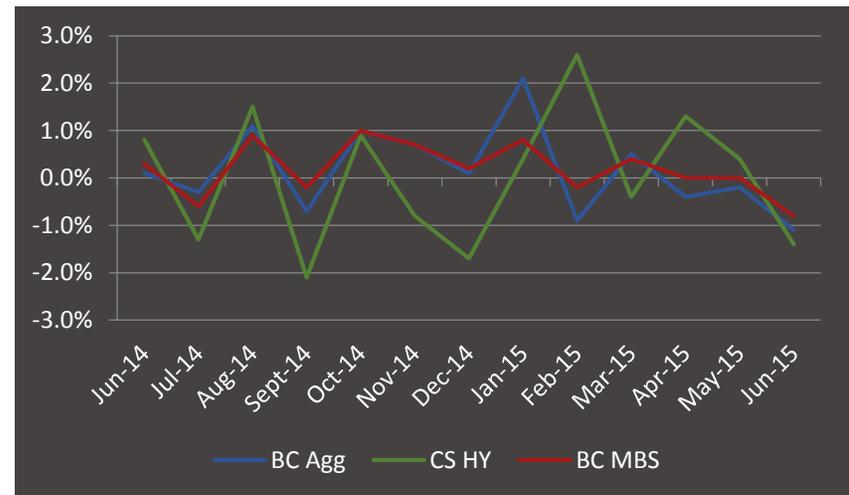
### Fixed Income Allocation



### Domestic Fixed Income - Market Overview

During the second half of 2014, fixed income experienced heightened volatility as renewed geopolitical risks, concerns over future global growth, and especially a plunge in oil prices weighed on investor sentiment. The first half of 2015 proved to be much like the back half of 2014 with mixed returns and commodity-driven sectors playing a big role in moving performance. Between an anticipated rise in interest rates, concerns over Greece, and swinging commodity prices, investors in general acted conservatively in the first half of the year. This cautious sentiment was constructive for the market by keeping investors from taking riskier actions.

### Fixed Income During Fiscal Year



## Domestic Fixed Income - Results

The domestic fixed income target allocation remained unchanged at 10% during the 2014-2015 fiscal year. The allocation consists of 4% to investment grade, 4% to high yield, and 2% to opportunistic credit. There were five domestic fixed income managers actively managing five portfolios.

### Allocations and Returns

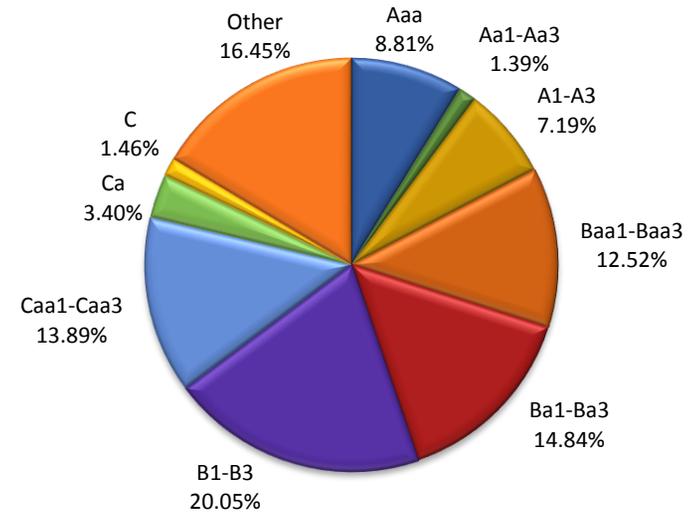
	Target Allocation	Actual Allocation	FYTD Return
Investment Grade	4%	3.7%	0.0%
High Yield	4%	4.1%	0.3%
Opportunistic Credit	2%	2.0%	6.0%
<b>TOTAL</b>	<b>10%</b>	<b>9.8%</b>	<b>10.7%</b>

### Domestic Fixed Income Managers

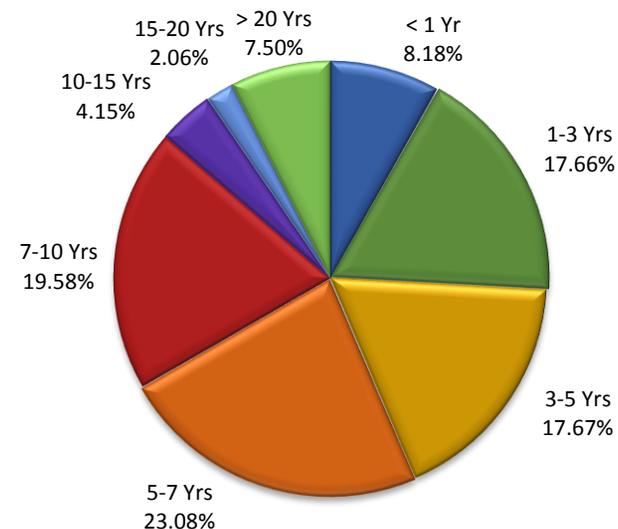
Manager	Mkt Value (\$M)	Benchmark
Loomis Sayles & Co	230.4	BC Aggregate
Orleans Capital Mgmt	162.6	
<b>Investment Grade</b>	<b>393.0</b>	
J. P. Morgan	218.8	Credit Suisse
Nomura Asset Mgmt	218.5	
<b>High Yield</b>	<b>437.3</b>	
Marathon	216.4	BC MBS
<b>Opportunistic Credit</b>	<b>216.4</b>	
<b>TOTAL</b>	<b>\$1,046.7</b>	

The following charts show LASERS quality and maturity allocation as of June 30, 2015.

### Quality Allocation



### Maturity Allocation



The top ten holdings are as follows:

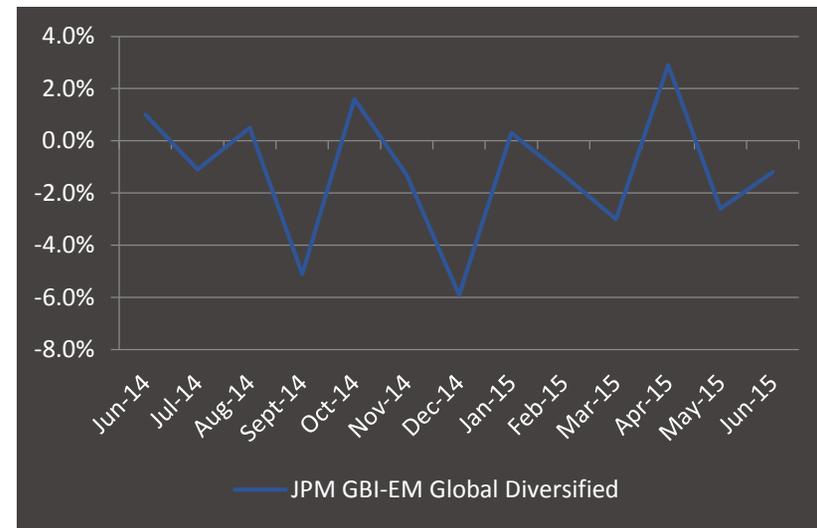
### Domestic Fixed Income - Top Holdings

Security Name	Market Value
TBA - FNMA Pools, 3.5% 8/1/2045	8,922,085.20
Cobalt CMBS Commercial	8,410,002.00
TBA - FNMA Pools, 4.0% 8/1/2045	8,166,406.50
US Treasury - TIPS, 0.125% 7/15/2024	4,616,956.59
GS Mortgage Securities	4,430,783.61
JP Morgan Chase Commercial	4,418,995.20
US Treasury - TIPS, 1.375% 2/15/2044	4,358,765.30
Valero Energy Corp.	4,207,739.83
Medtronic Inc.	4,114,927.78
WAMU Mortgage Pass-Throughs	4,077,123.18
<b>TOTAL</b>	<b>\$55,723,785.19</b>

### Emerging Market Debt - Market Overview

The fiscal year began in 3Q14 with total returns for each major subcategory of the EMD space (local currency, hard currency, sovereign, and corporate) being negative. Weaker growth data across all regions was a key factor underlying emerging market debt underperformance. Local currency debt, specifically, underperformed as concerns about global growth led to weaker emerging market currencies relative to the U.S. dollar. This trend continued throughout the fiscal year to varying degrees. The J.P. Morgan GBI-EM Global Diversified Index fell 15.4% for the fiscal year.

### EMD During Fiscal Year



### Emerging Market Debt - Results

The emerging market debt allocation remained unchanged at 2% during the 2014-2015 fiscal year. The allocation is managed by Stone Harbor and is benchmarked to the J.P. Morgan GBI-EM Global Diversified Index. As of June 30, 2015, it had a market value of \$148.9 million. The portfolio had an actual allocation of 1.4% and returned -16.4% for the fiscal year.

### *EMD - Top Holdings*

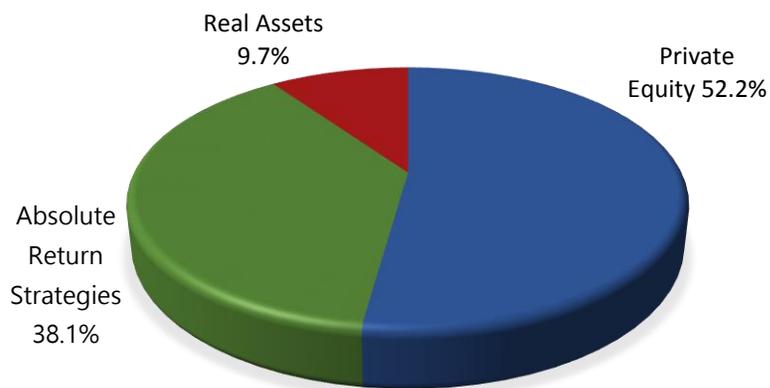
<b>Security Name</b>	<b>Market Value</b>
Mexican Bonos	6,666,388.01
J.P. Morgan Chase Bank	6,350,017.36
Indonesia Treasury Bond	5,816,021.14
South Africa Govt Bond, 10.5% 12/21/2026	4,681,796.85
South Africa Govt Bond, 6.75% 3/31/2021	4,439,545.20
Russian Federal Bond	4,438,585.36
Malaysia Govt Bond	3,805,771.86
Brazil Notas Do Tesouro, 10.0% 1/1/2017	3,781,893.20
Brazil Notas Do Tesouro, 0.0% 7/1/2018	3,509,302.95
Brazil Notas Do Tesouro, 10.0% 1/1/2025	3,453,592.53
<b>TOTAL</b>	<b>\$46,942,914.46</b>



*Alternatives*

As of June 30, 2015, the Alternatives portfolio had a market value of assets of \$2,553.3 million, representing 17.0% of the Total Plan. Within the Alternatives Program, \$1,332.7 million, or 12.4% of the total plan, was allocated to private equity, \$973.8 million, or 9.1% of the total plan, was allocated to absolute return strategies, and \$246.9 million, or 2.3% of the total plan, was allocated to real assets.

### Alternatives Allocation



### Private Equity

The private equity allocation remained unchanged at 13% during the 2014-2015 fiscal year. The program returned 9.2% for the fiscal year, and there were fifty-nine portfolios being managed by twenty-six managers.

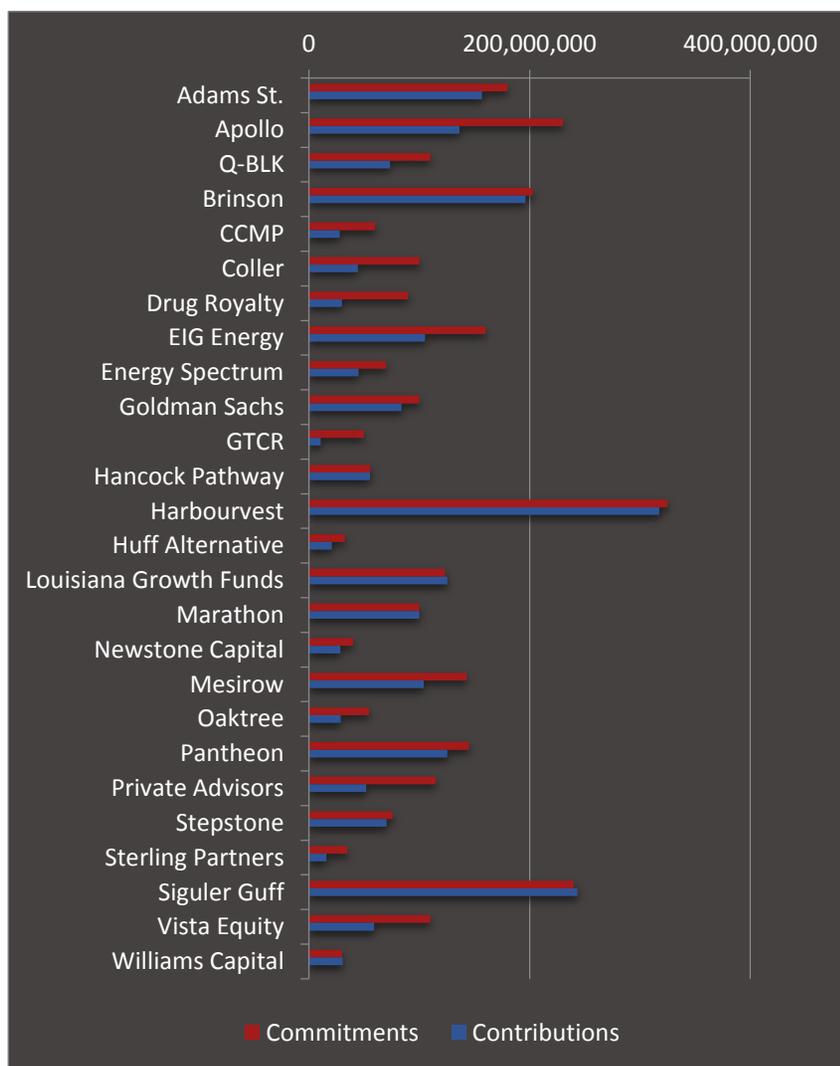
The private equity portfolio consists of a variety of strategies, each being utilized for their distinctive benefits to improve and diversify the portfolio as a whole. Private equity investments ideally increase diversification at the total fund level and capture higher returns associated with the illiquidity premium.

### Private Equity Managers

Manager	Mkt Value (\$M)	% of Portfolio
Adams Street	115.9	8.7%
Apollo	96.9	7.3%
Brinson	14.6	1.1%
CCMP Capital	26.2	2.0%
Coller International	51.4	3.9%
Drug Royalty	4.9	0.4%
EIG Energy	16.3	1.2%
Energy Spectrum	19.3	1.4%
GTCR	11.9	0.9%
Goldman Sachs	63.4	4.8%
Hancock Pathway	0.4	0.0%
Harbourvest	47.3	3.5%
Huff Alternative	10.8	0.8%
Louisiana Growth Funds	36.3	2.7%
Marathon	48.4	3.6%
Mesirow	111.1	8.3%
Newstone Capital	14.7	1.1%
Oaktree	35.0	2.6%
Pantheon Ventures	102.5	7.7%
Private Advisors	48.1	3.6%
Q-BLK	94.5	7.1%
Siguler Guff	137.9	10.3%
StepStone	69.4	5.2%
Sterling Partners	14.4	1.1%
TCW Energy	50.0	3.8%
Vista Equity	68.3	5.1%
Williams Capital	22.8	1.7%
<b>TOTAL</b>	<b>\$1,332.7</b>	<b>100.0%</b>

Since LASERS began investing in private equity, commitments totaling over \$2.9 billion have been made. Cumulatively, nearly \$2.3 billion, or 77% of total commitments, have been invested and over \$2.1 billion has been distributed back to LASERS.

### Private Equity Commitments and Contributions



### Absolute Return Strategies

The absolute return strategy allocation remained unchanged at 8% during the 2014-2015 fiscal year. The actual allocation on June 30, 2015, was 9.1% and the program returned 2.3% for the fiscal year. There were seven portfolios, two of which were in liquidation, being managed by six managers.

These strategies provide LASERS with diversification and potential for increased long-term returns due to the lower correlation with the major market indices. LASERS fund of funds and multi-strategy investments allow access to top tier funds; a reduction in individual fund and manager risk; and provide industry, style, and geographic diversification.

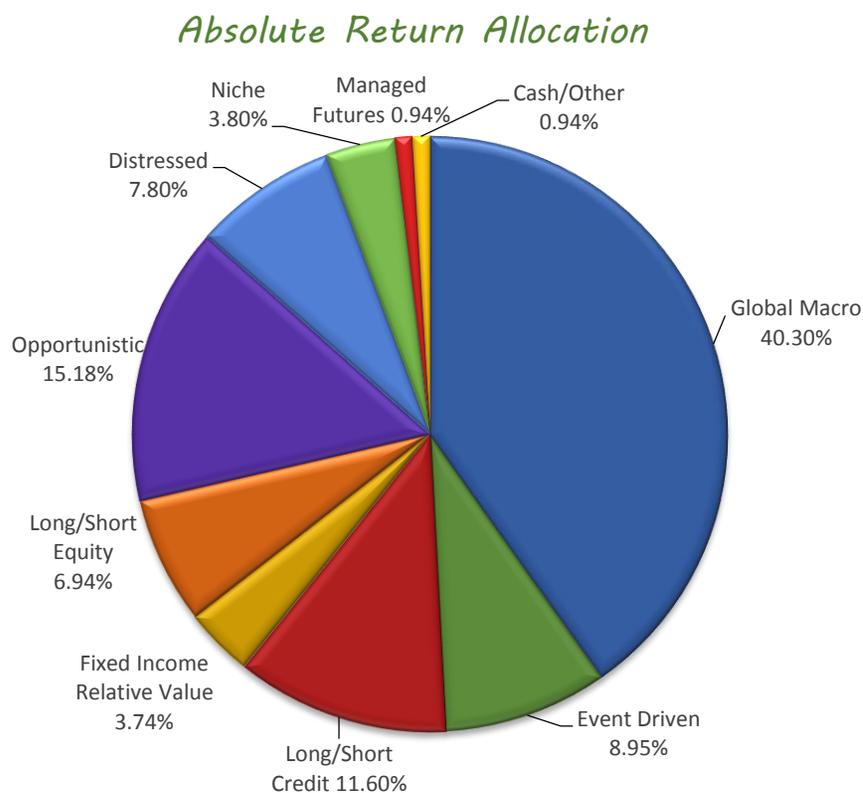
During the fiscal year, the transition to a more concentrated/best ideas portfolio, which began three years earlier, continued. Restructuring the portfolio consisted of full redemption requests to three managers near the end of the 2011-2012 fiscal year. As of June 30, 2015, one of those was completed and the two remaining had a market value of assets of \$7.3 million, or less than 1% of the absolute return portfolio.

### Absolute Return Managers

Manager	Mkt Value (\$M)	% of Portfolio
Bridgewater	374.6	38.5%
Entrust Capital	146.7	15.1%
K2 Advisors*	2.6	0.3%
PAAMCO	200.2	20.6%
Prisma Capital	245.0	25.2%
Stark Investments*	4.7	0.5%
<b>TOTAL</b>	<b>\$973.8</b>	<b>100.0%</b>

\*In redemption status

The following chart displays the allocation of LASERS absolute return portfolio by strategy.



### Real Assets

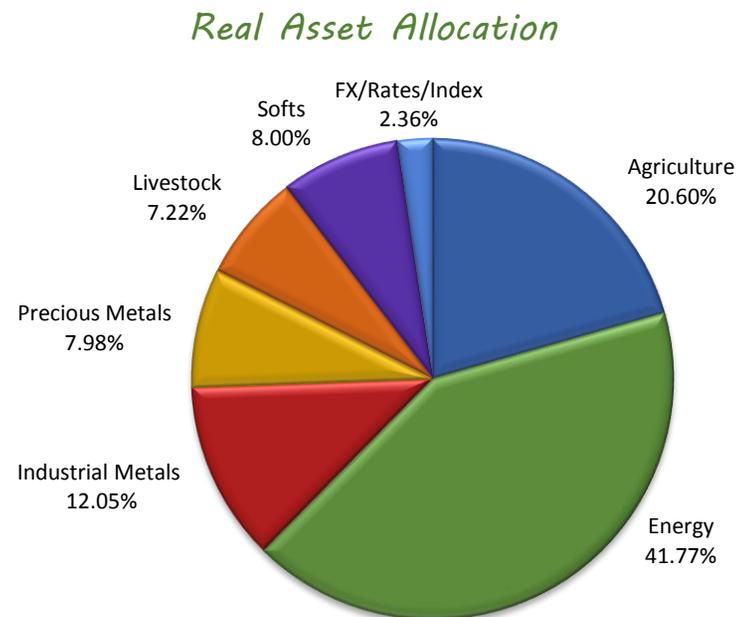
The allocation to real assets remained unchanged at 3% during the 2014-2015 fiscal year. As of June 30, 2015, the actual allocation was 2.3%, and the program returned -9.4% for the fiscal year. There were two portfolios being managed by two managers.

Real assets typically exhibit low correlation to equities and fixed income markets and provide diversification benefits to the overall investment portfolio. Real assets also provide inflation-adjusted or positive “real” returns. The inflation protection provided by real asset investments can help the overall investment portfolio meet liabilities during periods of rising inflation.

### Real Asset Managers

Manager	Mkt Value (\$M)	% of Portfolio
Gresham Inv Mgmt	101.0	40.9%
Pinnacle Asset Mgmt	145.8	59.1%
<b>TOTAL</b>	<b>\$246.8</b>	<b>100.0%</b>

The following chart displays the allocation of LASERS real assets portfolio.



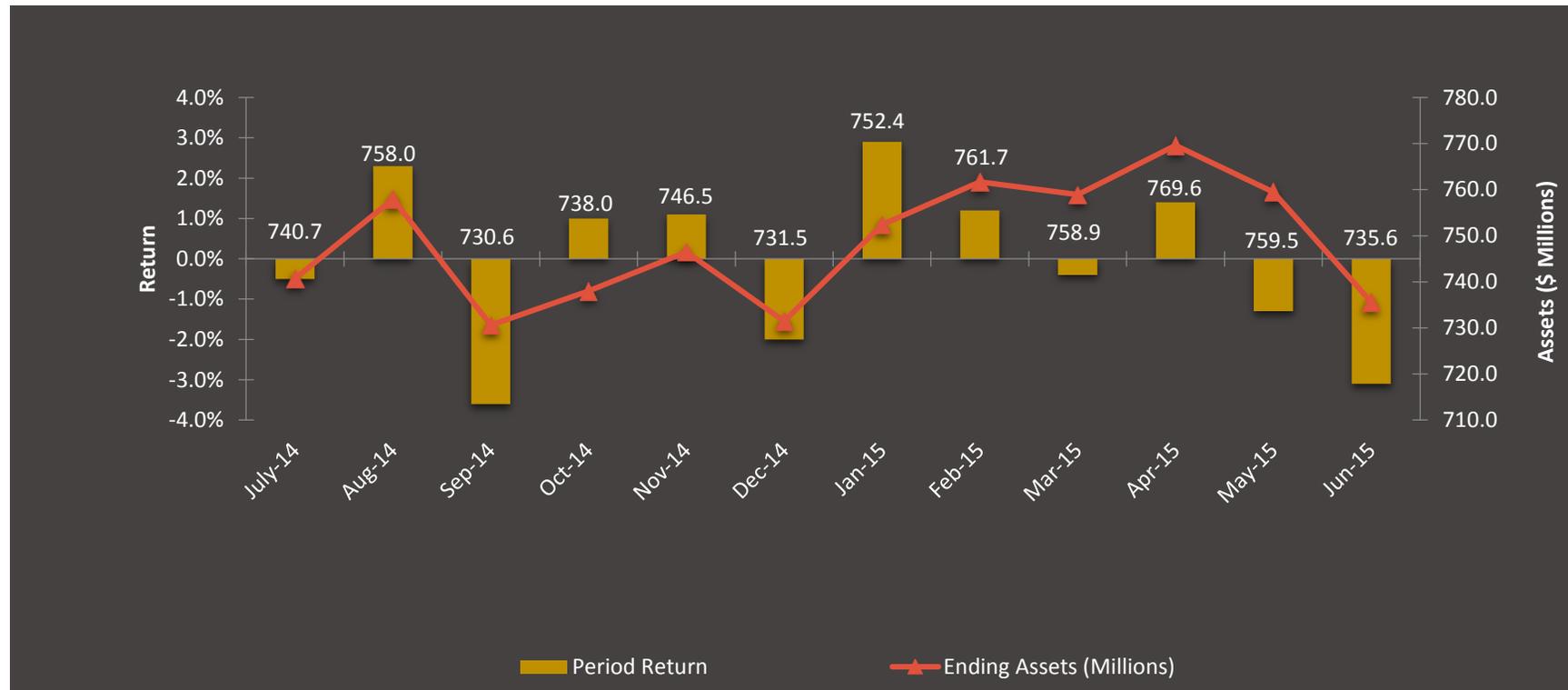


As of June 30, 2015, the Global Asset Allocation portfolio had a market value of assets of \$735.6 million, representing 6.8% of the Total Plan.

The allocation remained unchanged at 7% during the fiscal year. Bridgewater Associates manages the entire allocation in their All Weather product, and the program returned -1.1% for the year ending June 30, 2015.

The global asset allocation strategy utilizes an optimal strategic allocation mix that aims to provide favorable risk-adjusted returns. The strategy’s goal is to avoid being biased to any one market environment, thus producing a more balance return stream. Below is a monthly breakdown of returns and assets in the All Weather portfolio for the fiscal year.

Monthly Returns and Assets





*Supplemental Information*

Below is a schedule of commissions for the fiscal year ending June 30, 2015. The table includes the brokerage firms utilized by LASERS equity managers and total commissions paid to each.

### *Commission Summary*

<b>Brokerage Firm</b>	<b>Commission</b>
Keybanc Capital Markets	\$80,899.79
State Street	67,499.73
Stephens	52,766.40
Barclays Capital	42,823.14
Craig Hallum	38,405.62
Morgan Stanley	35,317.55
Robert W. Baird & Co	33,588.66
Deutsche Bank	32,663.95
Weeden & Co	32,519.92
UBS Equities	31,951.44
SG Securities	31,131.80
Capital One Southcoast	30,363.61
Johnson Rice & Co.	28,819.06
Investment Technology	24,449.07
Barclay's Capital Le	21,386.46
Stifel Nicolaus	21,353.30
Sandler O'Neill & Partners	17,876.34
First Analysis Securities	16,355.48
Jonestrading	15,743.00
Dougherty Company	14,793.51
Guzman & Company	14,536.65
Avondale	13,405.32
Janney Montgomery Scott	12,714.09
Merrill Lynch	12,668.01
Compass Point Research	12,503.38
Needham & Co	12,206.59

<b>Brokerage Firm</b>	<b>Commission</b>
Knight Equity Markets	\$12,159.21
JP Morgan	12,080.80
Piper Jaffray	11,714.12
Citigroup	11,601.61
Wedbush Morgan	11,275.33
Raymond James	10,982.72
Wells Fargo	10,530.33
Cantor Fitzgerald	9,181.49
Fig Partners	9,078.25
Sanford Bernstein & Co	8,931.44
Suntrust Cap Markets	8,272.02
JNK Securities	8,192.55
BTIG	7,331.10
Keefe, Bruyette & Woods	7,204.70
Wunderlich Securities	7,160.29
Davidson & Co	7,156.00
Exane	7,154.06
Canaccord Genuity Inc	6,908.03
CJS Securities	6,766.20
Goldman Sachs	6,637.16
Meridian Equity Partners	6,501.05
Credit Research & Trading	5,982.05
Liquidnet Inc	5,956.88
Noble International	5,802.98
Other (49)	96,020.30
<b>Total</b>	<b>\$1,081,520.19</b>

LASERS is committed to monitoring and analyzing execution costs, with the ultimate goal of ensuring best execution. We conduct a thorough annual review of total execution costs that our managers incur, which includes commissions, market impact, and timing costs. Trading activity and costs are also monitored on an ongoing basis, including a quarterly review of each manager. To oversee our trading activity, LASERS staff compiles and analyzes trade data internally, in addition to using the services of an outside consultant, Zeno Consulting Group.

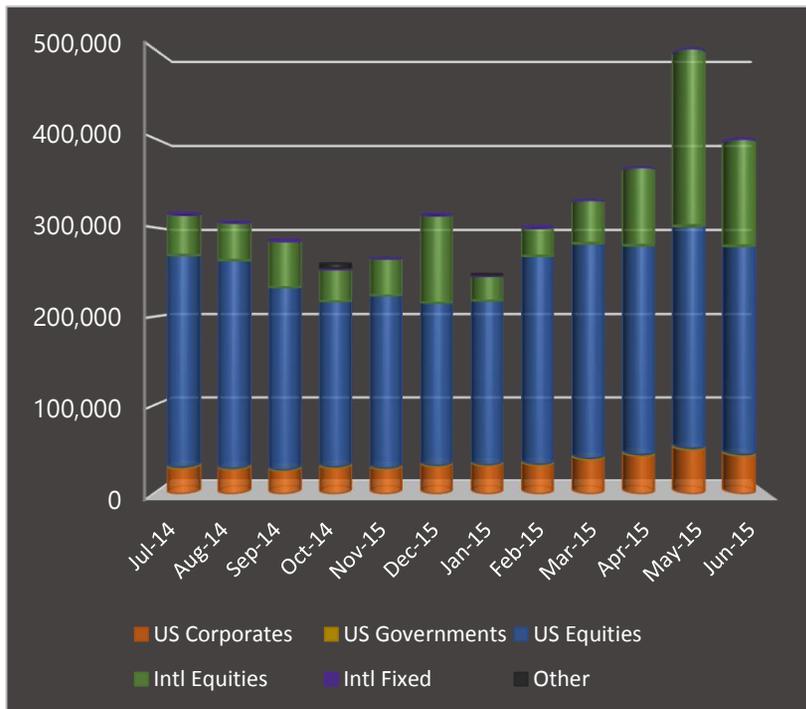
***Zeno Consulting Group:*** The Zeno Consulting Group analysis involves capturing and analyzing the entire trading process, from security selection through completed execution. Benchmarks and peer group universes are then used as a tool to evaluate the relative execution quality of both investment managers and brokers.

***Soft Dollar Commissions:*** Soft dollars refer to the direction of client brokerage or commissions by investment managers to brokers in return for products and services. Eliminating the use of soft dollars by our investment managers has been a focus of LASERS for a number of years. We have successfully worked with our investment managers to eliminate the generation of soft dollars on behalf of LASERS.

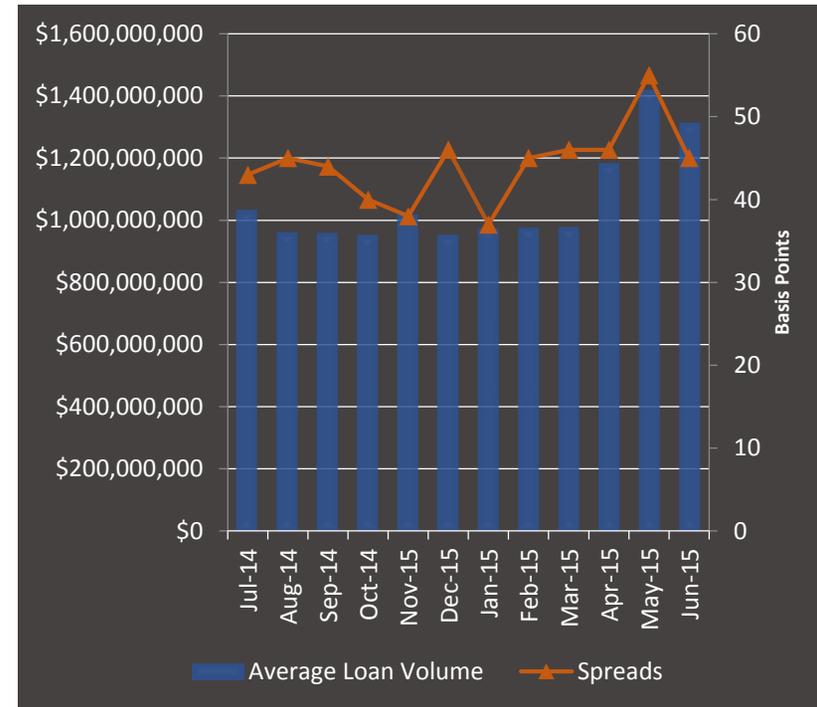
***Foreign Exchange:*** Just as in the trading of securities, LASERS is focused on obtaining best execution when trading foreign currencies. LASERS uses a process to receive and trade based on live, competitive quotes. By trading based on quotes from multiple institutions, internal staff is able to ensure LASERS is receiving fair quotes and best execution and any given time for any given trade.

During the fiscal year 2014-2015, LASERS generated \$3,904,836 in revenue through its securities lending program. The lending agreement between LASERS and BNY Mellon incorporates an 80/20 split on the first \$2,500,000 and 85/15 split thereafter, which LASERS reached in February of 2015. Lendable volume and on-loan volume saw a slight uptick year-over-year, resulting in a revenue increase of approximately \$165,000 for the fiscal year. The volume on loan increased from an average of \$962.6 million in 2014 to \$1.0 billion in 2015. The weighted average total spread was 45 basis points as compared to the Fed Funds Target Rate of 25 basis points.

### Lending Revenue



### Volumes/Spreads



In the fiscal year 2014-2015, the average market value of lendable securities was \$5.9 billion, which is an increase of approximately \$152 million over the previous year. The average return on available assets for lending was 6.6 basis points and the return on loaned assets was 36.8 basis points.

## Lending Statistics

Program	Average Lendable Assets (Millions)	Return from Lending Income (Basis Points)	Lending Income (Thousands)
Treasuries	\$22	4.1	\$7
Agencies	\$7	7.6	\$4
MBS	\$57	0	\$0
US Corporates	\$685	7.3	\$412
US Equities	\$3,023	10.6	\$2,631
Non-US Equities	\$2,003	5.1	\$844
Non-US Fixed Income	\$97	0.8	\$6

The Board of Trustees of LASERS exercises its right to vote as a shareholder in companies held within investment portfolios as an important method to participate in the corporate governance process. As a fiduciary, LASERS is compelled to exercise this right in the best interest of the System's participants and beneficiaries. This is accomplished by voting for shareholders' resolutions that are likely to enhance shareholder value and by opposing resolutions that are likely to dilute or diminish the value.

Guidelines have been developed to describe how LASERS intends to vote on commonly raised and potentially contentious issues. These guidelines have been developed to encourage companies to take actions that are in the long-term best economic interest of shareholders. They are applied to help determine whether to support or oppose a proposal by a corporation (or shareholder), and are used by LASERS proxy voting agent to vote in accordance with the best interest of LASERS plan participants.

LASERS recognizes that certain proposals, if approved, may have a substantial impact on the market valuation of portfolio securities; therefore, the right to vote is viewed as an asset to be accorded the same fiduciary care and responsibility as our investments.

LASERS generally votes against proposals that may have a negative effect on the stock price and/or reduce shareholder rights. Conditions are imposed on voting for elections of directors, and LASERS may withhold votes from directors based on board and committee independence, performance of the board, failure to respond to high shareholder withhold/against votes and poor long-term corporate performance relative to peers. Several factors are also considered before approving executive and director compensation. LASERS questions the role of compensation in

incentivizing inappropriate or excessive risk-taking behavior and has little patience for "pay for failure." LASERS believes that pay programs should be fair, competitive, reasonable, and that pay for performance should be a central tenet in compensation philosophy.

During the fiscal year July 1, 2014, to June 30, 2015, LASERS voted over 28,000 proposals on a variety of issues including capitalization, compensation, and corporate governance issues. Votes were cast on proxy issues at over 2,500 meetings during the 12-month period.

## Proxy Activity

Category	Proposals	For	Against	Other
<b>Management Proposals</b>				
Routine/Business	4,795	3,482	1,288	25
Director Related	17,150	8,939	8,124	87
Capitalization	1,733	1,385	348	0
Reorganizations & Mergers	544	524	19	1
Non-Salary Compensation	3,119	2,088	992	39*
Antitakeover Related	307	264	41	2
Other/Miscellaneous	36	25	10	1
<b>Shareholder Proposals</b>				
Routine/Business	141	68	73	0
Director Related	347	195	94	58
Corporate Governance	67	34	27	6
Compensation	92	68	24	0
Health/Environmental	101	68	32	1
Social/Human Rights	25	14	10	1
Other/Miscellaneous	122	79	39	4
<b>Total</b>	<b>28,579</b>	<b>17,233</b>	<b>11,121</b>	<b>225</b>

\*20 votes - frequency of Say When on Pay

To assess risk, investment division staff assembles the holdings of all managed portfolios to create an aggregate view of LASERS assets and utilizes multiple software systems. Supported by powerful multi-factor models and extensive databases, these software systems assist in quantifying various metrics at the asset level up to the aggregated portfolio level. These tools allow the investment staff to decompose the risk by source and monitor the overall risk in the portfolio based on the manager or asset class that is contributing that risk. Decomposing risks at an aggregated level and at the individual manager level allows the investment staff to better understand and manage the sources of risk in LASERS portfolio.

Risk characteristics of the portfolio, including manager tracking error and value-at-risk (VaR) data, are gathered by the investment staff to quantify the risks inherent in the LASERS portfolio. Value-at-risk reports identify the minimum amount a fund might lose at a given confidence level over a given time period. Tracking error gives an indication of how similar a portfolio is to its respective benchmark.

The scenario analysis can be extended to “stress” the portfolio under different scenarios, historically based and ad hoc, to view how the portfolio would perform under extreme economic and market conditions. For example, staff is able to test the performance of fixed income assets based on a change in interest rates.

### VaR and Tracking Error Report

	Assets	Market Value	Weight (%)	Total Risk	Tracking Error	Value-At Risk (%)
<b>Fixed Income Managers</b>						
<b>Total Summary</b>	<b>2,489</b>	<b>\$1,183,825,159</b>	<b>100.00%</b>			
Marathon OMBS	138	\$216,358,354	18.28%	3.32%	2.12%	5.85%
Nomura High Yield	861	\$205,910,794	17.39%	3.96%	0.84%	3.70%
JPMorgan High Yield	914	\$210,031,249	17.74%	3.70%	0.29%	3.62%
Loomis Inv Grade	325	\$230,435,963	19.47%	7.95%	7.37%	12.83%
Orleans Inv Grade	125	\$139,918,875	11.82%	3.21%	1.36%	5.04%
Stone Harbor	126	\$181,169,924	15.30%	9.45%	1.77%	13.08%

## VaR and Tracking Error Report *(continued)*

	Assets	Market Value	Weight (%)	Total Risk	Tracking Error	Value-At Risk (%)
<b>Equity Managers</b>						
<b>Total Summary</b>	<b>4,084</b>	<b>\$6,074,062,830</b>	<b>100.00%</b>			
LASERS S&P 500	503	\$1,342,475,555	22.10%	11.00%	0.00%	18.01%
LASERS S&P 400	401	\$432,517,959	7.12%	11.90%	0.08%	20.04%
LASERS S&P 600	601	\$326,701,227	5.38%	12.90%	0.02%	21.90%
MSCI World Ex Us	841	\$1,353,042,805	22.28%	14.16%	0.15%	19.69%
MSCI Terror Free	314	\$34,348,799	0.57%	13.66%	1.05%	18.97%
Mondrian Large Cap	44	\$237,940,193	3.92%	14.25%	3.55%	20.56%
Mondrian Small Cap	81	\$299,079,995	4.92%	12.70%	4.62%	17.45%
AJO	92	\$286,851,989	4.72%	11.68%	2.19%	18.84%
City of London	72	\$317,291,567	5.22%	9.42%	5.47%	16.29%
LSV Emerging Market	329	\$455,025,891	7.49%	12.22%	2.13%	19.37%
LSV Custom Emerging Mkt	158	\$221,710,985	3.65%	10.92%	3.21%	17.56%
LSV Small Cap	204	\$144,866,354	2.38%	13.25%	2.43%	22.09%
Rice Hall James	58	\$293,075,856	4.83%	12.77%	3.48%	21.77%
THB Microcap	116	\$37,433,273	0.62%	14.77%	4.50%	25.26%
THB Small Cap	81	\$117,290,388	1.93%	12.72%	2.99%	21.01%
Westwood Global	31	\$174,409,994	2.87%	12.76%	5.07%	21.12%

## Scenario Analysis by Fixed Income Manager

	+ 200 BPS	+ 100 BPS	- 100 BPS	- 200 BPS	Lehman Default 2008	Debt Ceiling Crisis 2011
Marathon OMBS	-4.2%	-2.3%	2.6%	5.5%	-4.9%	-9.2%
Nomura High Yield	-6.1%	-3.1%	3.0%	6.0%	-13.3%	-2.9%
JPMorgan High Yield	-6.3%	-3.2%	3.1%	6.2%	-11.9%	-2.1%
Loomis Inv Grade	-9.9%	-5.1%	5.2%	10.6%	-11.8%	-0.6%
Stone Harbor	-14.6%	-4.3%	8.1%	16.8%	-13.1%	-1.8%
Orleans Inv Grade	-9.9%	-4.8%	4.9%	10.0%	-7.6%	1.6%

## Scenario Analysis by Equity Manager

	Lehman Default 2008	Greece Financial Crisis 2010	Japan Earthquake March 2011	Debt Ceiling Crisis & Downgrade 2011	Bear Market SPX Down 20%, Oil Down 20% & VIX up 150%
LASERS S&P 500	-16.7%	-9.7%	-1.1%	-20.0%	-16.0%
LASERS S&P 400	-21.4%	-10.7%	-1.4%	-20.7%	-15.6%
LASERS S&P 600	-22.2%	-11.3%	-1.7%	-20.9%	-15.2%
MSCI World Ex Us	-15.0%	-14.0%	-5.6%	-14.7%	-14.4%
MSCI Terror Free	-14.2%	-13.7%	-5.3%	-14.2%	-13.7%
Mondrian Large Cap	-12.7%	-14.7%	-4.7%	-13.4%	-14.7%
Mondrian Small Cap	-20.3%	-13.6%	-3.9%	-14.8%	-12.9%
AJO	-17.3%	-10.1%	-1.0%	-20.7%	-16.5%
City of London	-13.5%	-10.6%	-1.9%	-11.0%	-13.3%
LSV Emerging Market	-11.3%	-11.8%	-2.3%	-13.7%	-12.9%
LSV Custom Emerging Market	-9.4%	-10.8%	-2.3%	-12.4%	-11.2%
LSV Small Cap	-21.7%	-11.2%	-1.8%	-20.7%	-15.3%
Rice Hall James	-21.6%	-11.3%	-1.9%	-20.3%	-14.7%
THB Microcap	-23.9%	-12.2%	-2.1%	-21.2%	-15.1%
THB Small Cap	-21.2%	-9.9%	-1.4%	-19.3%	-14.5%
Westwood Global	-15.3%	-12.0%	-1.8%	-13.1%	-13.3%

In evaluating portfolio managers, it is also important to understand the sector weightings of the manager versus the benchmark. An equity Global Investment Classification Standards (GICS) sector report allows for a quick and easy

comparison of a fund's weighting in each GICS sector versus the benchmark weightings. Portfolios can also be aggregated to show how the LASERS total equity allocation is positioned.

## Sector Analysis

GICS Sector	Assets	Holdings	Market Value	Weight (%)	Bmk Weight (%)	Active Weight (%)
<b>Total Summary</b>	<b>3,989</b>	<b>981,335,601</b>	<b>\$6,426,117,742</b>	<b>100.00%</b>	<b>100.00%</b>	<b>0.00%</b>
Cash			38,091,056	0.59%	0.00%	0.59%
Consumer Discretionary	560	72,663,367	1,142,553,975	17.78%	12.16%	5.62%
Consumer Staples	236	42,210,870	658,473,979	10.25%	7.73%	2.51%
Energy	262	49,798,335	376,797,987	5.86%	7.25%	-1.38%
Financials	899	489,801,389	1,238,435,024	19.27%	24.23%	-4.96%
Funds	3	266,329	39,836,945	0.62%	0.00%	0.62%
Health Care	306	12,208,167	605,577,304	9.42%	10.58%	-1.16%
Industrials	612	83,702,646	748,622,161	11.65%	11.88%	-0.23%
Information Technology	490	94,669,364	785,502,665	12.22%	12.83%	-0.61%
Materials	314	43,377,878	319,711,725	4.98%	5.78%	-0.80%
Other	30	9,070,447	32,664,250	0.51%	0.57%	-0.07%
Telecom Services	99	42,949,397	219,853,722	3.42%	3.37%	0.05%
Utilities	178	40,617,412	219,996,949	3.42%	3.62%	-0.19%

**Introduction:** The Louisiana State Employees' Retirement System (LASERS) was established by the state legislature in 1946. (R.S. 11:401). LASERS is a qualified pension and retirement plan under section 401(a) of the Internal Revenue Code and was created to provide retirement allowances and other benefits for state officers and employees and their beneficiaries. Benefits are funded by three sources: employer contributions, employee contributions and earnings from trust fund investments.

The System is governed by a 13 member Board of Trustees (Board). State law designates members of the Board as follows: six elected active members, three elected retired members and four ex-officio members, which consist of the Chairman of the House & Senate Retirement Committees, State Treasurer and Commissioner of Administration, or their designees, in accordance with applicable law.

**Statement of Purpose:** This document specifically outlines the investment philosophy and practices of LASERS and has been developed to serve as a framework for the management of the System's defined benefit plan. The Board has established the investment guidelines set forth herein, to formalize investment objectives, policies and procedures and to define the duties and responsibilities of the various entities involved in the investment process. All policy decisions shall include liquidity and risk considerations that are prudent and reasonable under the circumstances that exist over time. The policies will evolve as the internal conditions of the fund and the capital markets environment changes. Any resulting material changes will be communicated to all affected parties.

**Controlling Statutes and Regulation:** Investments of the Louisiana State Employees' Retirement System shall be made in

full accordance with Louisiana Revised Statutes, applicable legislation or regulation as well as LASERS internal policies and procedures.

**Principal Statutory Investment Provisions:** LASERS shall operate under the "Prudent Man" rule, used herein meaning, that when investing, the Board shall exercise the care, skill, prudence, and diligence under the circumstances then prevailing that a prudent institutional investor acting in a like capacity and familiar with such matters would use in the conduct of an enterprise of a like character and with like aims. (R.S. 11:263) LASERS will apply this standard to the entire fund portfolio, and as part of an overall investment strategy. This will include an asset allocation study and a plan for implementation which will incorporate risk and return objectives reasonably suitable to the fund. The following types of risk are to be examined: market value, credit, interest rate, inflation, counterparty and concentration. The study and implementation of such plan will be designed to preserve and enhance principal over the long term, provide adequate liquidity and cash flow for the system, and minimize the risk of loss unless it is clearly prudent not to do so. (R.S. 11:263.C)

With respect to fiduciary duty, the following shall be deemed to have a fiduciary relationship: (1) any person who exercises any type of discretionary authority or discretionary control with respect to the management of system funds or assets; and (2) any person who renders investment advice or services for compensation, directly or indirectly, with respect to the system funds or assets. (R.S. 11:264)

**Other Statutory Provisions:** When contemplating any investment, action or asset allocation the Board shall consider the following factors:

- The availability of public pricing to value each investment
- The ability to liquidate each investment at a fair market price within a reasonable time frame for the size of investment that is being considered
- The degree of transparency that accompanies each investment
- The risk of fluctuations in currency that may accompany each investment
- The experience of the professionals who will manage each investment and the financial soundness of the business entity employing such professionals
- The degree of diversification which exists within each investment and that such investment itself may provide relative to the other existing investments in the portfolio
- Whether leverage is involved
- The potential for unrelated business taxable income as defined in Section 512 of the Internal Revenue Code
- The jurisdiction of the laws that govern each investment
- The net return that is expected relative to the risk that is associated with each investment (R.S. 11:263.D)

LASERS is subject to a legislative limit restricting the fund so that no more than 65% of its total assets are invested in publicly traded equities. Should LASERS have more than 55% of its total assets invested in publicly traded equities, at least 10% of those equities must be invested in one or more index funds. Alternative assets are not considered to be equities when calculating LASERS equity exposure. LASERS will take steps to rebalance if, at the end of its fiscal year, its exposure to publicly traded equities is above 65%. LASERS is aware that markets will

fluctuate, and any rebalancing will appropriately consider market conditions and any other relevant factors. (R.S. 11:263.D)

When requesting proposals for investment advisory services, fees are required to be quoted on a fixed, market value of assets or performance basis. (R.S. 11:265)

Investment performance reports by investment managers and advisors shall be in compliance with the current Global Investment Performance Standards (GIPS) as amended and published by the CFA Institute (formally known as Association for Investment Management and Research). This is not required for limited partnerships, limited liability partnerships, private placements or natural resource portfolios. (R.S. 11:266)

Consultants and money managers shall provide full disclosure of conflicts of interest, including non-pension sponsor sources of revenue. Consultants also shall provide full disclosure of any payments they receive from money managers. (R.S. 11:269)

Details for this reporting requirement are listed under the Semi-Annual Reporting Requirements under the Conflicts of Interest Report in Section XII of these guidelines.

LASERS shall report to the legislature and other Louisiana state and statewide retirement systems on a quarterly basis investment returns and expenses on a total fund and asset class basis for the quarter, fiscal year-to-date, one year, three year, five year, and ten year periods. This will include at a minimum, the following:

- Investment returns net of fees and expenses expressed as a percentage return and dollar amount
- Administrative expenses

- Board-approved target/current asset allocation (R.S. 11:263.G)

LASERS shall report to the legislature on a semiannual basis investment in any company having facilities or employees or both located in a prohibited nation. A prohibited nation is considered to be one of the following: Iran, North Korea, Sudan or Syria. (R.S. 11:312) Details for this reporting requirement are listed under the Semi-Annual Reporting Requirements under the Prohibited Nations Report in Section XII of these guidelines.

LASERS shall have a corporate governance strategy of constructive engagement with each company in which it has direct and indirect ownership that has facilities or employees or both located in a prohibited nation. This strategy shall contain a plan of action to cause any such company to remove facilities, employees or both from any prohibited nation. This excludes private equity and hedge funds. (R.S. 11:314 & 315)

LASERS is required to invest a portion of funds in an international terror-free index fund which identifies and excludes from the fund companies having facilities or employees or both in a prohibited nation. (R.S. 11:316)

LASERS shall report to the legislature on a quarterly and annual basis its use of Louisiana broker dealers on specified transactions. (R.S. 11:266.1) Details for this reporting requirement are listed under the Quarterly Reporting Requirements under the Broker-Dealer Information in Section XII of these guidelines.

**Roles and Responsibilities:** The following section outlines the roles and responsibilities for each of the parties involved

with executing the policy. In addition to the activities described below, each person involved with the policy serves as a fiduciary and will adhere to the “Prudent Man” rule as described in State Statute, which is outlined under the Principal Statutory Investment Provisions found in these guidelines.

**Board of Trustees:** The Board of Trustees is responsible for the total investment program. The Board shall approve the investment policy and provide overall direction to the administrative staff in the execution of the investment policy.

- Formal Review Schedule  
The Board will conduct formal annual evaluations of the administrative staff, investment consultant and custodian.

**Investment Committee:** The Investment Committee was established by the Board to assist in oversight of the investment program; it will consist of not less than seven members of the Board. The Committee reviews and makes recommendation to the Board on investment actions including, but not limited to the following:

1. Asset Allocation
  - a. Establishing the asset allocation policy for the portfolio, including target percentages and ranges.
  - b. Approving asset classes for inclusion in the portfolio.
  - c. Establishing the structure of the portfolio, including the funds to be allocated to active/passive portfolios and internal/external managers.
2. Asset Management
  - a. Hiring, retaining or terminating investment managers, consultants, custodians and securities

lending agents based on established evaluation processes.

3. Risk Control
  - a. Ensuring that appropriate investment policies are in place, along with compliance of policies and directives.
  - b. Continue to be aware of information on compliance with Securities and Exchange Commission (SEC) rules on pay to play practices.
4. Monitoring
  - a. Establishing performance benchmarks and expectations.
  - b. Monitoring the performance of investments.

**Chief Investment Officer:** The Chief Investment Officer (CIO) shall assist the Board in developing and modifying policy objectives and guidelines, including the development of liability driven asset allocation strategies and recommendations on long-term asset allocation and the appropriate mix of investment manager styles and strategies. Choosing appropriate manager styles and strategies will include assisting the Board in evaluating the use of index funds as an alternative to active management. Additionally, the CIO shall provide assistance in manager searches and selection, investment performance calculation and evaluation, and any other analysis associated with the proper execution of the Board's directives.

The CIO shall also communicate the decisions of the Investment Committee to investment managers, custodian bank(s), actuary, and consultant. The CIO provides oversight of the investment consultant, investment service providers and personnel of LASERS investment division.

**Investment Consultant:** The Investment Consultant works under direction of the Board, offering a third party perspective and providing an additional level of oversight to the System's investment program. The Consultant's normal functions shall include assisting the Board and the CIO in developing and modifying policy objectives and guidelines, including the development of a liability-driven asset allocation strategy and recommendations on the appropriate mix of investment manager styles, strategies and funding levels.

Additionally, the Consultant shall provide education and training and assist in manager searches and selection, investment performance evaluation, and assist both the Board and CIO in the use of index funds as an alternative to active management. The Consultant shall provide timely information, written and/or oral, on investment strategies, instruments, managers and other related issues, as requested by the Board, the Investment Committee, or the CIO.

**Investment Managers:** The duties and responsibilities of each of the investment managers retained by the Board include, but may not be limited to, the following:

- Investing the assets under its management in accordance with the policy guidelines and objectives expressed herein
- Meeting or exceeding the manager-specific benchmarks, net of all fees and expenses, expressed herein over various and appropriately measured time periods
- Exercising investment discretion within the guidelines and objectives stated herein. Such discretion includes decisions to buy, hold or sell securities in amounts and proportions reflective of the manager's current

investment strategy and compatible with the investment objectives

- Complying with all provisions pertaining to the investment manager's duties and responsibilities as a fiduciary
- Complying with the CFA Institute's Code of Ethics & Standards of Professional Conduct and Global Investment Performance Standards (GIPS)
- Disclosing all conflicts and potential conflicts of interest
- Ensuring that all portfolio transactions are made on a "best execution" basis
- Exercising ownership rights, where applicable
- Meeting with the Board as needed upon request of the Board, and timely submitting all required reports outlined in Section XII of these guidelines
- Promptly informing the Board regarding all significant matters pertaining to the investment of the fund assets, for example:
  - Changes in investment strategy, portfolio structure and market value of managed assets
  - Changes in the ownership affiliations, organizational structure, financial condition, professional personnel staffing and clientele of the investment management organization
  - Any material changes in the liquidity of the securities they hold in the LASERS portfolio
  - Campaign contributions made by executives or employees to elected officials who can influence selection decisions
- Initiating written communication with the Board when the manager believes that this Investment Policy is inhibiting performance and/or should be altered for any valid reason. No deviation from the guidelines and objectives established in the Policy is permitted until

after such communication has occurred and the Board has approved such deviation in writing

- Reconciling performance, holdings and security pricing data with the Fund's custodian bank. If the Fund's custodian bank shows a significantly different price for a given security, the manager should work with the custodian bank to resolve pricing differences. Managers shall provide to LASERS staff a summary of reconciled holdings both in hard copy and the electronic format of LASERS choosing
- Any other duties included in the contract

**Custodian Bank:** The Custodian is responsible for the safekeeping of System assets and serves as the official book of record. It is understood that investments that are held in partnerships, commingled accounts or unique asset classes are unable to be held by the System's custodian bank.

The Custodian(s) will be responsible for performing the following functions:

- Holding System assets directly, through its agents, its sub-custodians, or designated clearing systems
- Registration of System assets in good delivery form, collection of income generated by those assets, and any corporate action notification
- Delivery and receipt of securities
- Disbursement of all income or principal cash balances as directed
- Providing daily cash sweep of idle principal and income cash balances. Dividends, interest, proceeds from sales, new contributions and all other monies are to be invested or reinvested promptly
- Providing online records and reports

- Providing monthly statements by investment managers' accounts and a consolidated statement of all assets
- Providing monthly performance reports and quarterly performance analysis reports
- Notifying appropriate entities of proxies
- Accepting daily instructions from designated investment staff
- Resolving any problems that staff may have relating to the custodial account
- Providing a dedicated account representative and back up to assist the LASERS staff in all needs relating to the custody and accountability of the Fund's assets
- Managing the securities lending program (if applicable)
- Overseeing securities class actions on behalf of the System
- Providing a compliance monitoring system
- Any other duties and services included in the contract

### *Investment Objectives*

***Nominal Return Requirements:*** The investment program shall be structured to preserve and enhance principal over the long term, in both real and nominal terms. For this purpose, short-term fluctuations in values will be considered secondary to long-term investment results. The investments of the Fund shall be diversified to minimize the risk of significant losses. Total return, which includes realized and unrealized gains, plus income less expenses, is the primary goal of LASERS.

The actuarially expected total rate of return for the Fund is 7.75% annually. However, LASERS seeks to achieve returns greater than 8.0%.

***Relative Return Requirements:*** LASERS seeks to have total returns rank in the top half of the appropriate public fund universe, reflecting similar circumstances to the Fund. The total fund return should, over time, exceed the Policy and Allocation Indices (see Section VI for a description of how the Policy and Allocation Indices are calculated.) Returns for LASERS managers should exceed their respective benchmarks, as well as rank in the top half of the appropriate universe of managers adhering to the same investment strategy.

The Board further recognizes that the return targets described herein may not be achieved in any single year. A longer-term horizon of 5-7 years shall be used in measuring the long-term success of the Fund. While the Board expects that returns will vary over time, LASERS has a risk tolerance consistent with that of other funds created for similar purposes, and the assets of the Fund shall be invested accordingly.

### *Performance Benchmarks*

***Total Fund Return:*** The Total Fund return shall be compared against other public pension plans. LASERS will compare its returns against other funds of similar size and circumstances. LASERS Total Fund return should meet or exceed the Allocation Index return and the Policy Index return, which are each described below.

**Allocation Index:** The Allocation Index return shall measure the success of the Fund’s current allocation. It shall be calculated by using index rates of return for each asset class invested in by the Fund multiplied by the actual percent allocated to each asset class. The difference between the Allocation Index return and the Total Fund return measures the effect of active management. If the Total Fund return is greater than the Allocation Index return, then active management has in aggregate added value. If the Total Fund return is less than the Allocation Index return, then active management has not added value.

**Policy Index:** The Policy Index return shall measure the success of the Fund’s target allocation. It shall be calculated by using index rates of return for each asset class invested in by the Fund multiplied by the percent targeted to each asset class. The difference between the Allocation Index return and the Policy Index return measures the effects of deviating from the target allocation. If the Allocation Index return is greater than the Policy Index return, then deviating from the target allocation has added value. If the Allocation Index return is less than the Policy Index return, then deviating has not added value.

**Manager Benchmarks:** LASERS Investment Managers shall be compared to a combination of passively managed index returns matching the managers’ specific investment styles, as well as the median manager in their appropriate peer group universe. Specific benchmarks and peer groups are described for each manager in Section B of this document.

**Asset Allocation:** The foundation of the System’s strength and stability rests upon the diversification of plan assets. The following section outlines the current asset allocation, which

was designed to achieve the required return objectives of the System, given certain risk considerations. This is to be pursued by LASERS on a long-term basis, but will be revised if significant changes occur within the economic and/or capital market environments. Changes in liability structure, funded status, or long-term investment prospects should trigger a revision of the asset allocation.

**Asset Classes:** The current allocation includes the following asset classes:

**Traditional Assets**

- Domestic Equity
- Domestic Fixed Income
- International Equity
- Emerging Market Equity
- Emerging Market Debt

**Non-Traditional Assets**

- Private Equity Fund of Funds - Domestic and International
- Private Equity Direct Funds - Domestic and International
- Absolute Return - Fund of Funds
- Absolute Return - Direct Funds
- Global Asset Allocation
- Real Assets/Inflation Protection Investments

Based on the Board’s determination of the appropriate risk tolerance for the System and its long-term expectations, the following asset class policy target allocation and permissible ranges have been established:

## Target Asset Mix

Asset Class	Market Value Target (%)	Minimum Exposure (%)	Maximum Exposure (%)
<b>Equities</b>	<b>57</b>	<b>47</b>	<b>67</b>
Domestic Large Cap	15	10	20
Domestic Mid Cap	4	0	10
Domestic Small Cap	8	3	13
Established International Large Cap	15	5	20
Established International Small Cap	3	0	7
Emerging International Equity	12	7	17
<b>Fixed Income</b>	<b>12</b>	<b>3</b>	<b>22</b>
Core Fixed Income	4	0	10
Domestic High Yield	4	0	10
Opportunistic Credit	2	0	7
Emerging Market Debt	2	0	7
Cash	0	0	5
<b>Alternative Assets</b>	<b>24</b>	<b>14</b>	<b>34</b>
Private Equity	13	5	20
Absolute Return	8	3	13
Real Assets/Inflation Protection Inv.	3	0	7
<b>Other</b>	<b>7</b>	<b>2</b>	<b>12</b>
Global Asset Allocation	7	2	12

**Implementation:** LASERS recognizes that special expertise is required to properly invest the majority of the assets described above. However, certain highly efficient passively managed investment strategies lend themselves to internal management, resulting in lower management fees for the Fund as a whole. Where appropriate, LASERS will manage these assets internally, so long as the same level of care, prudence and oversight is maintained that an outside professional investment advisor would typically provide.

**Style Allocation:** LASERS shall strive to maintain a neutral bias with respect to style allocation (growth versus value) in its equity investments, unless deemed advantageous to implement a style bias. LASERS recognizes that over the long run, returns from growth and value investing tend to approximate each other; over shorter periods, however, differences in returns can be significant. The CIO, as part of the normal rebalancing responsibilities, shall use appropriate judgment and care when rebalancing style-biased portfolios.

**Active/Passive Mix:** LASERS shall make use of passive strategies only where passive management, after all fees and expenses, can effectively compete with actively managed portfolios in terms of returns and variability of returns.

**Rebalancing:** The CIO will review LASERS asset allocation at least quarterly to determine if it is consistent with the exposure ranges established for LASERS described herein. The CIO will direct staff and investment managers to transfer funds to rebalance the asset allocation as necessary. The CIO will

consider market conditions and transaction costs, as well as any other relevant factors when rebalancing.

**Risk Management:** It is recognized that risk issues permeate the entire investment process, and risk is considered throughout the investment process from asset allocation to performance evaluation. Ongoing monitoring will be accomplished through a “mosaic” approach, in which various forms of analysis and reporting contribute to the total picture. Inspection of levels of diversification, nominal risk exposures, risk/return plots, sortino ratio, Value at Risk, tracking error, and worst case scenarios modeling form the core of the monitoring process.

## *Management Team*

**Cynthia Rougeou – Executive Director**

Maris LeBlanc - Deputy Director & Chief Operating Officer

Bernard “Trey” Boudreaux, III – Assistant Director & Chief Administrative Officer

Robert Beale, CFA, CAIA – Chief Investment Officer

Tina Vicari Grant – Executive Council

## *Investment Team*

**Robert Beale, CFA, CAIA – Chief Investment Officer**

Darren Fournerat, CFA, CAIA – Assistant Chief Investment Officer

Laney Sanders, CFA, CAIA, CTP – Assistant Chief Investment Officer

Celeste Funderburk, CCM – Director of Public Markets

Jacques Brousseau, CFA, CAIA – Director of Private Markets

Alisa Lacombe – Manager of Operations

Reeves Pearce – Manager of Alternative Assets, CAIA

Caye Weaver – Administrative Assistant

## *Investment Consultant*

**Rhett Humphrey’s, CFA – Lead Consultant**

## *Custodian Bank*

**Bank of New York Mellon**

This public document was published at a total cost of \$199.15. Thirty-five copies of this public document were published in this first printing at a cost of \$199.15. The total cost of all printings of this document, including reprints is \$199.15. This document was published by the Louisiana State Employees Retirement System, P.O. Box 44213, Baton Rouge, LA 70809, to disseminate plan benefit information to its members and to Louisiana policymakers under authority of La. R.S. 11:511. This material was printed in accordance with the standards for printing by state agencies established pursuant to La. R.S. 43:31.

# LASERS

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