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**Firefighters' Retirement System of Louisiana**

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**Investment Market Update**  
**(As of August 31, 2016)**

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## Index Performance Summary as of 08/31/2016

	2009	2010	2011	2012	2013	2014	2015	Q1	Q2	July	Aug	YTD
<b>Barclays US STRIPS 20+ Yr</b>	-36.0%	10.9%	58.5%	3.0%	-21.0%	46.4%	-3.7%	11.4%	9.6%	3.9%	-1.1%	25.3%
<b>Barclays US Long Credit</b>	16.8%	10.7%	17.1%	12.7%	-6.6%	16.4%	-4.6%	6.8%	6.7%	2.8%	0.6%	17.8%
<b>Barclays US Govt/Credit Long</b>	1.9%	10.2%	22.5%	8.8%	-8.8%	19.3%	-3.3%	7.3%	6.5%	2.6%	0.0%	17.2%
<b>JPM GBI-EM Global Div</b>	22.0%	15.7%	-1.8%	16.8%	-9.0%	-5.7%	-14.9%	11.0%	2.7%	0.6%	0.0%	14.8%
<b>MSCI EM</b>	78.5%	18.9%	-18.4%	18.2%	-2.6%	-2.2%	-14.9%	5.7%	0.7%	5.0%	2.5%	14.5%
<b>Barclays US Corporate HY</b>	58.2%	15.1%	5.0%	15.8%	7.4%	2.5%	-4.5%	3.4%	5.5%	2.7%	2.1%	14.3%
<b>JPM EMBI Global Diversified</b>	29.8%	12.2%	7.3%	17.4%	-5.3%	7.4%	1.2%	5.0%	5.0%	1.8%	1.8%	14.3%
<b>Alerian MLP</b>	76.4%	35.9%	13.9%	4.8%	27.6%	4.8%	-32.6%	-4.2%	19.7%	0.6%	-1.3%	13.8%
<b>FTSE NAREIT Equity REITs</b>	28.0%	28.0%	8.3%	18.1%	2.5%	30.1%	3.2%	6.0%	7.0%	4.2%	-3.7%	13.8%
<b>Citi WGBI</b>	2.6%	5.2%	6.4%	1.6%	-4.0%	-0.5%	-3.6%	7.1%	3.4%	0.5%	-0.9%	10.4%
<b>Russell 2500</b>	34.4%	26.7%	-2.5%	17.9%	36.8%	7.1%	-2.9%	0.4%	3.6%	5.2%	0.8%	10.3%
<b>Russell 2000</b>	27.2%	26.9%	-4.2%	16.3%	38.8%	4.9%	-4.4%	-1.5%	3.8%	6.0%	1.8%	10.2%
<b>Russell 1000</b>	28.4%	16.1%	1.5%	16.4%	33.1%	13.2%	0.9%	1.2%	2.5%	3.8%	0.1%	7.8%
<b>S&amp;P 500</b>	26.5%	15.1%	2.1%	16.0%	32.4%	13.7%	1.4%	1.3%	2.5%	3.7%	0.1%	7.8%
<b>Credit Suisse Leveraged Loan</b>	44.9%	10.0%	1.8%	9.4%	6.2%	2.1%	-0.4%	1.3%	2.9%	1.4%	0.8%	6.5%
<b>MSCI ACWI</b>	34.6%	12.7%	-7.3%	16.1%	22.8%	4.2%	-2.4%	0.2%	1.0%	4.3%	0.3%	5.9%
<b>Barclays US Agg Bond</b>	5.9%	6.5%	7.8%	4.2%	-2.0%	6.0%	0.5%	3.0%	2.2%	0.6%	-0.1%	5.9%
<b>Bloomberg Commodity</b>	18.9%	16.8%	-13.3%	-1.1%	-9.5%	-17.0%	-24.7%	0.4%	12.8%	-5.1%	-1.8%	5.6%
<b>Barclays Municipal</b>	12.9%	2.4%	10.7%	6.8%	-2.6%	9.1%	3.3%	1.7%	2.6%	0.1%	0.1%	4.5%
<b>Barclays US Agg Interm</b>	6.5%	6.1%	6.0%	3.6%	-1.0%	4.1%	1.2%	2.3%	1.4%	0.3%	-0.1%	3.9%
<b>BC US Govt/Credit 1-3 Yr</b>	3.8%	2.8%	1.6%	1.3%	0.6%	0.8%	0.7%	1.0%	0.7%	0.0%	-0.1%	1.6%
<b>MSCI EAFE</b>	31.8%	7.8%	-12.1%	17.3%	22.8%	-4.9%	-0.8%	-3.0%	-1.5%	5.1%	0.1%	0.5%
<b>Credit Suisse Hedge Fund</b>	18.6%	10.9%	-2.5%	7.7%	9.7%	4.1%	-0.7%	-2.2%	0.6%	-0.1%	1.1%	-0.5%

Source: Morningstar Direct



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### Market Environment

Coming on the heels of a rally in July, equities posted modest returns in August as volatility hovered around historic lows. In the US, small-cap stocks marginally outperformed large-cap equities, with the Russell 2000 returning 1.8% last month compared to the S&P 500's 0.1% gain. Equities in developed markets also posted moderate returns. The MSCI EAFE Index gained 0.1% in August with currency depreciation eroding returns as the US dollar reversed course and strengthened against the yen and euro. Emerging market stocks continued their year-to-date rally with the MSCI EM Index returning 2.5%, as investors discounted the likelihood of the Fed raising rates in September. Within emerging markets, investors, encouraged by positive business indicators and economic data, drove Chinese stocks higher by 8% despite continued pressure on commodity prices. The Bloomberg Commodity Index fell 1.8% in August, continuing its slide in the third quarter after rebounding in the first half of the year.

The 10-year US Treasury yield rose 13 basis points to 1.58% in August off of secular lows, providing a headwind to domestic fixed-income returns. Slight credit spread compression helped offset the increase in yield with the Barclays US Credit Index gaining 0.2% as the Barclays US Treasury Index fell 0.6% on the month. High-yield debt was generally positive amid spread tightening with the US Corporate High Yield Index returning 1.9%. Emerging market debt indices were modestly positive in August as greater demand for higher yielding assets has been matched by near record issuance of hard currency debt.

After an early summer marked by positive equity returns and generally strong economic data in the US, investors paused in August and pondered what an ever-dovish Fed might mean for asset prices going forward. While we are not in the business of forecasting Fed rate hikes--markets currently estimate the likelihood of a September hike at around 20%--it is clear that mid- and long-term rate expectations remain low. Whether or not a Fed rate hike comes in September, December or even 2017, investors face a difficult trade-off in balancing the ability of sustained easy policy to extend the rally in US equities against the fundamental headwinds of high valuations and declining profit margins.

### **Market Outlook**

While we recognize the possibility that US equities could remain in favor if the Fed drag's its feet, we believe fundamentals dictate an opportune time for investors to rebalance their equity portfolios to assume a more global posture. To that end, we continue to believe global mandates and strategies that invest down the cap spectrum offer greater alpha potential. Sustained currency market volatility and diverging macroeconomic conditions also provide a strong alpha backdrop for global macro strategies – which we believe may also yield correlation benefits for many portfolios. In fixed income, we maintain the view that global bond exposure is a mostly uncompensated risk as yields hover around record lows. We argue investors will be better served by seeking diversification within their bond allocation in other ways, such as seeking longer duration assets or adding a dedicated allocation to TIPS.

# Firefighters' Retirement System of Louisiana Investment Performance Flash Report

August 31, 2016

## Investment Performance Summary - Net of Fees

	Market Value (\$)	Policy %	% of Portfolio	1 Mo (%)	YTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Return (%)	Since
<b>Total Plan Composite</b>	<b>1,394,437,237</b>	<b>100.0</b>	<b>100.0</b>	<b>0.5</b>	<b>5.4</b>	<b>3.3</b>	<b>5.1</b>	<b>3.4</b>	<b>4.0</b>	<b>2.9</b>	<b>5.6</b>	<b>Sep-92</b>
<i>Policy Index</i>				0.3	7.3	3.3	8.1	6.9	--	--	--	Sep-92
<i>Allocation Index</i>				0.3	6.9	3.0	8.0	6.0	--	--	--	Sep-92
<b>Total Equity Composite</b>	<b>781,733,581</b>	<b>58.0</b>	<b>56.1</b>	<b>0.9</b>	<b>5.9</b>	<b>5.3</b>	<b>6.2</b>	<b>6.6</b>	<b>8.4</b>	<b>5.4</b>	<b>7.0</b>	<b>Sep-92</b>
<i>MSCI/ACWI</i>				0.3	5.9	4.7	7.2	6.7	8.3	4.4	7.2	Sep-92
<b>Domestic Equity Composite</b>	<b>381,015,850</b>	<b>27.0</b>	<b>27.3</b>	<b>0.6</b>	<b>8.0</b>	<b>4.2</b>	<b>9.9</b>	<b>8.7</b>	<b>10.8</b>	<b>7.2</b>	<b>7.5</b>	<b>Sep-92</b>
<i>Russell 3000</i>				0.3	8.0	4.2	11.4	11.7	14.5	7.6	9.4	Sep-92
<i>Mellon Stock Index Fund</i>	268,235,886		19.2	0.1	7.8	3.8	12.5	--	--	--	10.0	Nov-13
<i>S&amp;P 500</i>				0.1	7.8	3.8	12.6	12.3	14.7	7.5	10.1	Nov-13
<b>SMID Cap Composite</b>	<b>112,779,963</b>	<b>8.0</b>	<b>8.1</b>	<b>1.7</b>	<b>8.8</b>	<b>5.1</b>	<b>3.3</b>	<b>1.8</b>	<b>--</b>	<b>--</b>	<b>5.5</b>	<b>Oct-12</b>
<i>Russell 2500</i>				0.8	10.3	6.1	8.8	9.6	13.6	8.0	13.1	Oct-12
<i>Energy Opportunities Fund</i>	22,399,236		1.6	1.4	10.5	-2.0	-1.6	-10.5	-5.1	--	-1.7	Jul-07
<i>OlH/XLE Blended Energy Benchmark</i>				-0.2	9.8	-2.6	-2.0	-8.8	-3.6	--	-1.9	Jul-07
<b>SMID Cap Composite ex Energy</b>	<b>90,380,728</b>	<b>--</b>	<b>6.5</b>	<b>1.8</b>	<b>8.4</b>	<b>7.0</b>	<b>4.6</b>	<b>6.3</b>	<b>--</b>	<b>--</b>	<b>9.3</b>	<b>Oct-12</b>
<i>Russell 2500</i>				0.8	10.3	6.1	8.8	9.6	13.6	8.0	13.1	Oct-12
<i>Advisory Research SMID</i>	34,921,581		2.5	2.7	8.7	8.1	2.5	4.9	9.1	--	12.5	Jun-09
<i>Russell 2500 Value</i>				0.9	13.8	5.5	12.8	9.6	13.5	7.0	15.7	Jun-09
<i>Rothschild U.S. SMID Core</i>	55,459,146		4.0	1.2	8.2	6.3	6.0	--	--	--	-0.1	Jul-15
<i>Russell 2500</i>				0.8	10.3	6.1	8.8	9.6	13.6	8.0	1.9	Jul-15
<b>International Equity Composite</b>	<b>210,620,838</b>	<b>16.0</b>	<b>15.1</b>	<b>1.1</b>	<b>3.0</b>	<b>7.2</b>	<b>3.1</b>	<b>3.1</b>	<b>--</b>	<b>--</b>	<b>4.7</b>	<b>Oct-12</b>
<i>MSCI/ACWI ex USA</i>				0.6	4.5	5.6	2.9	2.0	3.3	2.0	3.8	Oct-12
<i>LSV International Equity Value</i>	103,567,849		7.4	1.5	4.0	7.1	3.0	2.9	4.2	1.7	5.1	Oct-04
<i>MSCI Custom Benchmark</i>				0.6	4.5	5.6	2.9	2.0	3.3	1.2	4.5	Oct-04
<i>Fisher All Foreign Equity</i>	107,052,988		7.7	0.8	2.1	7.3	3.1	3.5	4.2	3.6	6.3	Oct-04
<i>MSCI/ACWI ex USA</i>				0.6	4.5	5.6	2.9	2.0	3.3	2.0	5.4	Oct-04

Returns are net of manager fees.  
 Results for periods longer than one year are annualized. Results are preliminary and subject to change.  
 Fiscal Year ends June 30th.  
 SMID Cap and International Equity Composites start date is 10/1/2012.  
 MSCI Custom Benchmark is comprised of the MSCI EAFE until 12/31/2009 and MSCI ACWI ex USA beginning 1/1/2010.  
 Advisory returns are not yet reconciled due to delayed manager statements.



NEPC, LLC

August 31, 2016

# Firefighters' Retirement System of Louisiana Investment Performance Flash Report

August 31, 2016

	Market Value (\$)	Policy %	% of Portfolio	1 Mo (%)	YTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Return (%)	Since
<b>Global Equity Composite</b>	<b>131,199,427</b>	<b>10.0</b>	<b>9.4</b>	<b>0.8</b>	<b>0.1</b>	<b>4.6</b>	<b>-2.6</b>	<b>7.0</b>	--	--	<b>9.7</b>	<b>Oct-12</b>
MSCI ACWI				0.3	5.9	4.7	7.2	6.7	8.3	4.4	8.2	Oct-12
Thornburg Global Opportunities	64,407,455		4.6	1.2	-3.7	4.5	-7.7	10.4	12.0	8.2	10.6	Oct-04
MSCI ACWI				0.3	5.9	4.7	7.2	6.7	8.3	4.4	6.4	Oct-04
Mellon Global Equity	66,783,807		4.8	0.4	--	4.7	--	--	--	--	4.3	May-16
MSCI ACWI				0.3	5.9	4.7	7.2	6.7	8.3	4.4	4.2	May-16
<b>Emerging Markets Equity</b>	<b>58,897,466</b>	<b>5.0</b>	<b>4.2</b>	<b>1.9</b>	<b>13.2</b>	<b>7.5</b>	<b>11.2</b>	--	--	--	<b>-2.2</b>	<b>Oct-13</b>
MSCI Emerging Markets				2.5	14.5	7.6	11.8	1.1	-0.4	3.9	-1.0	Oct-13
Acadian Emerging Markets Equity	37,800,514		2.7	1.5	14.9	8.2	10.6	--	--	--	-2.2	Dec-13
MSCI Emerging Markets				2.5	14.5	7.6	11.8	1.1	-0.4	3.9	-2.2	Dec-13
OFI Emerging Markets	21,096,952		1.5	2.8	10.4	6.2	12.2	--	--	--	-3.4	Jan-14
MSCI Emerging Markets				2.5	14.5	7.6	11.8	1.1	-0.4	3.9	-1.8	Jan-14
<b>Total Fixed Income Composite</b>	<b>312,702,317</b>	<b>24.0</b>	<b>22.4</b>	<b>0.1</b>	<b>6.5</b>	<b>0.8</b>	<b>5.9</b>	<b>1.3</b>	--	--	<b>0.7</b>	<b>Oct-12</b>
Total Fixed Income Custom Benchmark				-0.1	7.2	0.5	6.5	2.1	1.9	4.2	1.0	Oct-12
<b>Core Fixed Income</b>	<b>261,169,520</b>	<b>20.0</b>	<b>18.7</b>	<b>0.2</b>	<b>5.2</b>	<b>0.9</b>	<b>5.2</b>	<b>3.1</b>	<b>3.0</b>	--	<b>3.0</b>	<b>Dec-10</b>
Barclays Aggregate				-0.1	5.9	0.5	6.0	4.4	3.2	4.9	3.6	Dec-10
Orleans Core Fixed Income	67,442,994		4.8	0.0	7.0	0.9	7.3	4.3	3.4	5.2	6.0	Aug-92
Barclays Aggregate				-0.1	5.9	0.5	6.0	4.4	3.2	4.9	5.8	Aug-92
Blackrock US Debt	143,729,040		10.3	-0.1	5.9	0.5	6.0	--	--	--	4.0	Nov-14
Barclays Aggregate				-0.1	5.9	0.5	6.0	4.4	3.2	4.9	3.9	Nov-14
Standish	49,997,486		3.6	1.2	0.8	1.9	--	--	--	--	-0.3	Oct-15
3-Month LIBOR + 4%				0.4	3.1	0.8	4.6	4.4	4.4	5.4	4.2	Oct-15
<b>Emerging Markets Debt</b>	<b>51,532,797</b>	<b>4.0</b>	<b>3.7</b>	<b>-0.1</b>	<b>14.2</b>	<b>0.5</b>	<b>9.9</b>	--	--	--	<b>-6.0</b>	<b>Nov-13</b>
JP Morgan GBI EM Global Diversified TR USD				0.0	14.5	0.4	11.0	-1.9	-2.4	5.2	-4.4	Nov-13
Stone Harbor	51,532,797		3.7	-0.1	14.2	0.5	9.9	--	--	--	-6.0	Nov-13
JP Morgan GBI EM Global Diversified TR USD				0.0	14.5	0.4	11.0	-1.9	-2.4	5.2	-4.4	Nov-13

Results for periods longer than one year are annualized. Results are preliminary and subject to change.

Fiscal YTD ends June 30th.

Global Equity Composite and Total Fixed Income Composite start date is 10/1/2012.

Total Fixed Income Custom Benchmark is comprised of the Barclays Aggregate from 10/1/2012 to 10/31/2013; 75% Barclays Aggregate/25% JPM GBI EM Diversified from 11/1/2013 to 2/29/2016; 85% Barclays Aggregate/15% JPM GBI EM Diversified going forward.

Global Equity Composite market value includes \$38,549.86 in terminated manager account.

Orleans Core Fixed Income returns are not yet reconciled due to delayed manager statements.



NEPC, LLC

August 31, 2016

# Firefighters' Retirement System of Louisiana

## Investment Performance Flash Report

August 31, 2016

	Market Value (\$)	Policy %	% of Portfolio	1 Mo (%)	YTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Return (%)	Since
<b>GAA Composite</b>	<b>140,096,574</b>	<b>10.0</b>	<b>10.0</b>	<b>-0.1</b>	<b>6.8</b>	<b>1.9</b>	<b>5.0</b>	--	--	--	<b>1.5</b>	<b>Apr-14</b>
<i>60% MSCI World (Net) / 40% CITI WGBI</i>				-0.3	7.3	2.4	8.2	5.5	5.9	4.7	2.6	Apr-14
Blackrock Global Allocation	71,783,272		5.1	0.3	4.2	3.5	4.3	--	--	--	2.1	Apr-14
<i>60% MSCI World (Net) / 40% CITI WGBI</i>				-0.3	7.3	2.4	8.2	5.5	5.9	4.7	2.6	Apr-14
AQR Global Risk Premium – EL	41,137,014		3.0	-0.7	10.8	-0.4	7.2	--	--	--	1.1	May-14
<i>60% MSCI World (Net) / 40% CITI WGBI</i>				-0.3	7.3	2.4	8.2	5.5	5.9	4.7	2.2	May-14
Putnam Risk Parity	27,176,287		1.9	0.1	8.0	1.4	3.9	--	--	--	-0.9	Jul-14
<i>60% MSCI World (Net) / 40% CITI WGBI</i>				-0.3	7.3	2.4	8.2	5.5	5.9	4.7	1.1	Jul-14
<b>Total Alternative Composite</b>	<b>149,443,001</b>	<b>8.0</b>	<b>10.7</b>	<b>0.0</b>	<b>0.7</b>	<b>0.0</b>	<b>-0.4</b>	<b>-3.6</b>	<b>-1.8</b>	<b>0.3</b>	<b>1.0</b>	<b>Jun-05</b>
<b>Private Equity Composite</b>	<b>44,065,900</b>	<b>4.0</b>	<b>3.2</b>	<b>0.0</b>	<b>-0.5</b>	<b>0.0</b>	<b>-1.8</b>	<b>-12.6</b>	<b>-4.6</b>	<b>-0.6</b>	<b>-5.2</b>	<b>Jul-05</b>
<i>Cambridge Associates US All PE</i>				0.0	0.2	0.0	-0.6	9.7	10.4	10.4	11.7	Jul-05
Murphree Venture (\$2,000,000)	1,543,478		0.1	0.0	-2.5	0.0	0.9	2.0	1.5	-0.2	-0.5	Sep-05
Louisiana Fund I (\$1,000,000)	2,087,160		0.1	0.0	0.0	0.0	0.0	0.5	2.5	0.1	-6.0	Jul-05
DTC Private Equity II-Q, L.P. (\$7,500,000)	2,829,359		0.2	0.0	1.0	0.0	-0.5	8.6	9.2	5.9	5.5	Feb-06
Greenspring Associates (\$9,230,000)	5,111,191		0.4	0.0	-9.1	0.0	-13.6	17.0	17.1	9.9	6.5	Feb-06
DCM Private Equity II (\$7,500,000)	2,998,270		0.2	0.0	-5.6	0.0	-6.3	-3.1	0.2	-0.9	-1.5	Feb-06
FECF II (\$20,000,000)	1,146,946		0.1	0.0	-17.3	0.0	-26.3	18.2	10.3	--	9.0	Mar-08
FECF III (\$20,000,000)	3,061,839		0.2	0.0	4.3	0.0	7.6	32.8	28.5	--	18.4	Jul-09
GA Crossover Fund (\$25,000,000)	9,458,217		0.7	0.0	1.8	0.0	1.9	17.9	21.4	--	14.6	Jan-08
CCMP Capital Investors III (\$15,000,000)	8,770,985		0.6	0.0	5.5	0.0	6.0	--	--	--	8.1	Oct-14
Landmark Equity Partners XV (\$25,000,000)	7,058,455		0.5	0.0	1.4	0.0	-0.4	--	--	--	15.6	Dec-14

Results for periods longer than one year are annualized. Results are preliminary and subject to change.

Fiscal YTD ends June 30th.

Private Equity valuations are as of 03/31/2016 adjusted for cash flows.

# Firefighters' Retirement System of Louisiana

## Investment Performance Flash Report

August 31, 2016

	Market Value (\$)	Policy %	% of Portfolio	1 Mo (%)	YTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Return (%)	Since
<b>Real Estate Composite</b>	<b>105,377,101</b>	<b>4.0</b>	<b>7.6</b>	<b>0.0</b>	<b>1.2</b>	<b>0.0</b>	<b>0.4</b>	<b>4.8</b>	<b>5.6</b>	<b>--</b>	<b>4.7</b>	<b>Dec-09</b>
<i>NCREIF Property Index</i>				0.0	4.3	0.0	10.6	11.6	11.5	7.4	11.2	Dec-09
Americus Fund II (\$13,168,000)	774,243		0.1	0.0	4.4	0.0	-34.6	-11.4	-4.1	3.0	3.6	Dec-05
Sentinel Real Estate Fund (\$30,000,000)	34,148,127		2.4	0.0	1.5	0.0	8.8	11.5	17.6	5.8	6.0	Feb-06
JP Morgan India (\$8,990,000)	4,603,226		0.3	0.0	-0.4	0.0	-3.7	-2.6	-2.1	--	-12.9	Apr-07
Timbervest Crossover Fund (\$16,000,000)	10,632,959		0.8	0.0	1.0	0.0	-7.3	-2.7	-0.1	--	-0.2	Apr-08
AEW Partners VI LP (\$20,000,000)	11,981,285		0.9	0.0	0.3	0.0	13.7	17.0	17.1	--	13.0	Mar-10
AEW Core Property (\$12,000,000)	13,339,961		1.0	0.0	1.8	0.0	8.0	--	--	--	8.3	May-15
FRS-GA (Georgia)	4,754,758		0.3	0.0	0.0	0.0	0.0	-4.5	-2.7	--	-8.2	Jun-08
FRS-LB I (NLTP AZ)	4,482,019		0.3	0.0	0.0	0.0	0.0	1.5	-26.8	--	-19.1	Jun-07
FRS-LB III (ST George UT)	5,277,740		0.4	0.0	0.0	0.0	0.0	0.0	-1.0	--	1.6	Jun-08
ASB Real Estate Fund	3,061,946		0.2	0.0	1.6	0.0	--	--	--	--	1.6	Jan-16
Heitman America Real Estate Trust	12,320,837		0.9	0.0	2.2	0.0	--	--	--	--	5.8	Nov-15
<b>Total Cash (\$9 MM)</b>	<b>10,461,765</b>	<b>--</b>	<b>0.8</b>	<b>0.0</b>	<b>0.2</b>	<b>0.1</b>	<b>0.2</b>	<b>0.1</b>	<b>0.1</b>	<b>1.1</b>	<b>2.9</b>	<b>Jun-92</b>
<i>91 Day T-Bills</i>				0.0	0.2	0.0	0.2	0.1	0.1	0.8	2.6	Jun-92

Results for periods longer than one year are annualized. Results are preliminary and subject to change.

Fiscal YTD ends June 30th.

Real Estate valuations are as of 03/31/2016 adjusted for cash flows.

FRS – LB I is part of the Real Estate Composite as of 12/1/2012.



# Firefighters' Retirement System of Louisiana

## Current Monthly Breakdown of Change in Value

August 31, 2016

### Total Cash Flow Summary

Month Ending August 31, 2016

	Beginning Market Value	Withdrawals	Contributions	Net Cash Flow	Fees	Net Investment Change	Ending Market Value
Acadian Emerging Markets Equity	\$37,255,596	\$0	\$0	\$0	-\$63,239	\$544,918	\$37,800,514
Advisory Research SMID	\$34,005,476	\$0	\$0	\$0	\$0	\$916,105	\$34,921,581
AEW Core Property (\$12,000,000)	\$13,339,961	\$0	\$0	\$0	\$0	\$0	\$13,339,961
AEW Partners VI LP (\$20,000,000)	\$11,981,285	\$0	\$0	\$0	\$0	\$0	\$11,981,285
Americus Fund II (\$13,168,000)	\$774,243	\$0	\$0	\$0	\$0	\$0	\$774,243
AQR Global Risk Premium – EL	\$41,442,379	\$0	\$0	\$0	-\$31,881	-\$305,365	\$41,137,014
ASB Real Estate Fund	\$3,031,698	\$0	\$30,247	\$30,247	\$0	\$0	\$3,061,946
Blackrock Global Allocation	\$71,487,022	\$0	\$113,993	\$113,993	-\$113,993	\$182,258	\$71,783,272
Blackrock US Debt	\$148,905,799	-\$5,000,000	\$14,716	-\$4,985,284	-\$14,716	-\$191,475	\$143,729,040
Cash/Clearing Account	\$3,763,458	-\$5,487,298	\$7,801,594	\$2,314,296	\$0	\$1,607	\$6,079,360
CCMP Capital Investors III (\$15,000,000)	\$7,941,116	\$0	\$829,869	\$829,869	\$0	\$0	\$8,770,985
DCM Private Equity II (\$7,500,000)	\$2,998,270	\$0	\$0	\$0	\$0	\$0	\$2,998,270
DTC Private Equity II-Q, L.P. (\$7,500,000)	\$2,829,359	\$0	\$0	\$0	\$0	\$0	\$2,829,359
Energy Opportunities Fund	\$22,090,070	\$0	\$0	\$0	\$0	\$309,166	\$22,399,236
FECP II (\$20,000,000)	\$1,182,696	-\$35,750	\$0	-\$35,750	\$0	\$0	\$1,146,946
FECP III (\$20,000,000)	\$3,061,839	\$0	\$0	\$0	\$0	\$0	\$3,061,839
Fisher All Foreign Equity	\$106,184,966	\$0	\$0	\$0	\$0	\$868,023	\$107,052,988
FRS-GA (Georgia)	\$4,754,758	\$0	\$0	\$0	\$0	\$0	\$4,754,758
FRS-LB I (NLTP AZ)	\$4,482,019	\$0	\$0	\$0	\$0	\$0	\$4,482,019
FRS-LB III (ST George UT)	\$5,277,740	\$0	\$0	\$0	\$0	\$0	\$5,277,740
GA Crossover Fund (\$25,000,000)	\$9,956,474	-\$498,257	\$0	-\$498,257	\$0	\$0	\$9,458,217
Greenspring Associates (\$9,230,000)	\$5,296,115	-\$184,924	\$0	-\$184,924	\$0	\$0	\$5,111,191
Heitman America Real Estate Trust	\$12,320,837	\$0	\$0	\$0	\$0	\$0	\$12,320,837
JP Morgan India (\$8,990,000)	\$4,603,226	\$0	\$0	\$0	\$0	\$0	\$4,603,226
Landmark Equity Partners XV (\$25,000,000)	\$7,058,455	\$0	\$0	\$0	\$0	\$0	\$7,058,455

# Firefighters' Retirement System of Louisiana

## Current Monthly Breakdown of Change in Value

August 31, 2016

	Month Ending August 31, 2016							Ending Market Value
	Beginning Market Value	Withdrawals	Contributions	Net Cash Flow	Fees	Net Investment Change		
Liquidating - BlackRock Global Focused	\$38,550	-\$30,333	\$0	-\$30,333	\$0	-\$52	\$8,165	
Louisiana Asset Management Pool	\$4,380,763	\$0	\$0	\$0	\$0	\$1,642	\$4,382,405	
Louisiana Fund I (\$1,000,000)	\$2,087,160	\$0	\$0	\$0	\$0	\$0	\$2,087,160	
LSV International Equity Value	\$102,051,720	\$0	\$0	\$0	\$0	\$1,516,129	\$103,567,849	
Mellon Global Equity	\$66,529,443	\$0	\$0	\$0	\$0	\$254,364	\$66,783,807	
Mellon Stock Index Fund	\$267,857,929	\$0	\$0	\$0	\$0	\$377,957	\$268,235,886	
Murphree Venture (\$2,000,000)	\$1,543,478	\$0	\$0	\$0	\$0	\$0	\$1,543,478	
OFI Emerging Markets	\$20,529,521	\$0	\$0	\$0	-\$15,119	\$567,431	\$21,096,952	
Orleans Core Fixed Income	\$67,436,022	\$0	\$0	\$0	\$0	\$6,972	\$67,442,994	
Putnam Risk Parity	\$27,150,625	\$0	\$0	\$0	\$0	\$25,662	\$27,176,287	
Rothschild U.S. SMID Core	\$54,814,865	\$0	\$0	\$0	-\$88,879	\$644,282	\$55,459,146	
Sentinel Real Estate Fund (\$30,000,000)	\$34,533,790	-\$385,663	\$0	-\$385,663	\$0	\$0	\$34,148,127	
Standish	\$49,381,944	\$0	\$0	\$0	\$0	\$615,541	\$49,997,486	
Stone Harbor	\$51,594,959	\$0	\$0	\$0	-\$36,502	-\$62,163	\$51,532,797	
Thornburg Global Opportunities	\$63,633,931	\$0	\$0	\$0	-\$83,342	\$773,524	\$64,407,455	
Timbervest Crossover Fund (\$16,000,000)	\$10,632,959	\$0	\$0	\$0	\$0	\$0	\$10,632,959	
<b>Total</b>	<b>\$1,390,222,517</b>	<b>-\$11,622,225</b>	<b>\$8,790,419</b>	<b>-\$2,831,806</b>	<b>-\$447,672</b>	<b>\$7,046,526</b>	<b>\$1,394,437,237</b>	

Beginning Market Value may not match the Ending Market Value of the previous Flash report due to delayed reporting of private investments (private equity and real estate).

# Firefighters' Retirement System of Louisiana

## Current Fiscal YTD Breakdown of Change in Value

August 31, 2016

### Total Cash Flow Summary

Fiscal YTD Ending August 31, 2016

	Beginning Market Value	Withdrawals	Contributions	Net Cash Flow	Fees	Net Investment Change	Ending Market Value
Acadian Emerging Markets Equity	\$34,944,517	\$0	\$0	\$0	-\$63,239	\$2,855,997	\$37,800,514
Advisory Research SMID	\$32,306,260	\$0	\$0	\$0	\$0	\$2,615,322	\$34,921,581
AEW Core Property (\$12,000,000)	\$13,339,961	\$0	\$0	\$0	\$0	\$0	\$13,339,961
AEW Partners VI LP (\$20,000,000)	\$11,981,285	\$0	\$0	\$0	\$0	\$0	\$11,981,285
Americus Fund II (\$13,168,000)	\$813,843	-\$39,600	\$0	-\$39,600	\$0	\$0	\$774,243
AQR Global Risk Premium – EL	\$41,311,508	\$0	\$0	\$0	-\$63,999	-\$174,494	\$41,137,014
ASB Real Estate Fund	\$3,031,698	\$0	\$30,247	\$30,247	\$0	\$0	\$3,061,946
Blackrock Global Allocation	\$69,213,303	\$0	\$113,993	\$113,993	-\$113,993	\$2,455,976	\$71,783,272
Blackrock US Debt	\$147,959,644	-\$5,000,000	\$14,716	-\$4,985,284	-\$14,716	\$754,681	\$143,729,040
Cash/Clearing Account	\$4,966,116	-\$7,095,290	\$8,205,419	\$1,110,128	\$0	\$3,115	\$6,079,360
CCMP Capital Investors III (\$15,000,000)	\$7,941,116	\$0	\$829,869	\$829,869	\$0	\$0	\$8,770,985
DCM Private Equity II (\$7,500,000)	\$2,998,270	\$0	\$0	\$0	\$0	\$0	\$2,998,270
DTC Private Equity II-Q, L.P. (\$7,500,000)	\$2,829,359	\$0	\$0	\$0	\$0	\$0	\$2,829,359
Energy Opportunities Fund	\$22,851,429	\$0	\$0	\$0	-\$57,129	-\$452,193	\$22,399,236
FECP II (\$20,000,000)	\$1,182,696	-\$35,750	\$0	-\$35,750	\$0	\$0	\$1,146,946
FECP III (\$20,000,000)	\$3,112,904	-\$51,065	\$0	-\$51,065	\$0	\$0	\$3,061,839
Fisher All Foreign Equity	\$99,751,388	\$0	\$0	\$0	\$0	\$7,301,600	\$107,052,988
FRS-GA (Georgia)	\$4,754,758	\$0	\$0	\$0	\$0	\$0	\$4,754,758
FRS-LB I (NLTP AZ)	\$4,482,019	\$0	\$0	\$0	\$0	\$0	\$4,482,019
FRS-LB III (ST George UT)	\$5,277,740	\$0	\$0	\$0	\$0	\$0	\$5,277,740
GA Crossover Fund (\$25,000,000)	\$9,956,474	-\$498,257	\$0	-\$498,257	\$0	\$0	\$9,458,217
Greenspring Associates (\$9,230,000)	\$5,460,158	-\$348,967	\$0	-\$348,967	\$0	\$0	\$5,111,191
Heitman America Real Estate Trust	\$12,320,837	\$0	\$0	\$0	\$0	\$0	\$12,320,837
JP Morgan India (\$8,990,000)	\$4,603,226	\$0	\$0	\$0	\$0	\$0	\$4,603,226
Landmark Equity Partners XV (\$25,000,000)	\$7,174,572	-\$149,117	\$33,000	-\$116,117	\$0	\$0	\$7,058,455

# Firefighters' Retirement System of Louisiana

## Current Fiscal YTD Breakdown of Change in Value

August 31, 2016

	Fiscal YTD Ending August 31, 2016							Ending Market Value
	Beginning Market Value	Withdrawals	Contributions	Net Cash Flow	Fees	Net Investment Change		
Liquidating - BlackRock Global Focused	\$38,504	-\$30,333	\$0	-\$30,333	\$0	-\$6	\$8,165	
Louisiana Asset Management Pool	\$4,379,144	\$0	\$0	\$0	\$0	\$3,262	\$4,382,405	
Louisiana Fund I (\$1,000,000)	\$2,087,160	\$0	\$0	\$0	\$0	\$0	\$2,087,160	
LSV International Equity Value	\$96,703,747	\$0	\$0	\$0	\$0	\$6,864,102	\$103,567,849	
Mellon Global Equity	\$63,767,414	\$0	\$0	\$0	\$0	\$3,016,393	\$66,783,807	
Mellon Stock Index Fund	\$258,331,649	\$0	\$0	\$0	\$0	\$9,904,237	\$268,235,886	
Murphree Venture (\$2,000,000)	\$1,543,478	\$0	\$0	\$0	\$0	\$0	\$1,543,478	
OFI Emerging Markets	\$19,860,080	\$0	\$0	\$0	-\$29,832	\$1,236,872	\$21,096,952	
Orleans Core Fixed Income	\$66,864,691	\$0	\$0	\$0	\$0	\$578,304	\$67,442,994	
Putnam Risk Parity	\$26,791,354	\$0	\$0	\$0	\$0	\$384,933	\$27,176,287	
Rothschild U.S. SMID Core	\$52,150,941	\$0	\$0	\$0	-\$88,879	\$3,308,205	\$55,459,146	
Sentinel Real Estate Fund (\$30,000,000)	\$34,533,790	-\$385,663	\$0	-\$385,663	\$0	\$0	\$34,148,127	
Standish	\$49,048,765	\$0	\$0	\$0	\$0	\$948,721	\$49,997,486	
Stone Harbor	\$51,284,146	\$0	\$0	\$0	-\$73,049	\$248,650	\$51,532,797	
Thornburg Global Opportunities	\$61,655,743	\$0	\$0	\$0	-\$83,342	\$2,751,712	\$64,407,455	
Timbervest Crossover Fund (\$16,000,000)	\$10,632,959	\$0	\$0	\$0	\$0	\$0	\$10,632,959	
<b>Total</b>	<b>\$1,354,238,649</b>	<b>-\$13,634,042</b>	<b>\$9,227,244</b>	<b>-\$4,406,799</b>	<b>-\$588,178</b>	<b>\$44,605,387</b>	<b>\$1,394,437,237</b>	

Beginning Market Value may not match the Ending Market Value of the previous Flash report due to delayed reporting of private investments (private equity and real estate).

# Firefighters' Retirement System of Louisiana

## Since Inception Breakdown of Change in Value

### Total Cash Flow Summary

	Ending August 31, 2016					
	Beginning Market Value	Withdrawals	Contributions	Net Cash Flow	Net Investment Change	Ending Market Value
Acadian Emerging Markets Equity	--	\$0	\$40,000,000	\$40,000,000	-\$2,199,486	\$37,800,514
Advisory Research SMID	--	-\$42,800,000	\$34,937,469	-\$7,862,531	\$42,784,112	\$34,921,581
AEW Core Property (\$12,000,000)	--	\$0	\$12,000,000	\$12,000,000	\$1,339,961	\$13,339,961
AEW Partners VI LP (\$20,000,000)	--	-\$16,539,762	\$18,420,450	\$1,880,688	\$10,100,597	\$11,981,285
Americus Fund II (\$13,168,000)	--	-\$15,693,930	\$12,044,774	-\$3,649,156	\$4,423,399	\$774,243
AQR Global Risk Premium – EL	--	\$0	\$40,100,000	\$40,100,000	\$1,037,014	\$41,137,014
ASB Real Estate Fund	--	\$0	\$3,035,580	\$3,035,580	\$26,366	\$3,061,946
Blackrock Global Allocation	--	\$0	\$67,427,334	\$67,427,334	\$4,355,938	\$71,783,272
Blackrock US Debt	--	-\$55,000,000	\$188,538,693	\$133,538,693	\$10,190,347	\$143,729,040
Cash/Clearing Account	--	-\$1,880,984,031	\$1,883,945,331	\$2,961,300	\$3,118,060	\$6,079,360
CCMP Capital Investors III (\$15,000,000)	--	-\$129,294	\$8,179,681	\$8,050,387	\$720,598	\$8,770,985
Commonwealth	--	-\$9,671,012	\$30,000,000	\$20,328,988	-\$20,328,988	--
DCM Private Equity II (\$7,500,000)	--	-\$5,689,972	\$8,340,318	\$2,650,346	\$347,924	\$2,998,270
DTC Private Equity II-Q, L.P. (\$7,500,000)	--	-\$6,337,500	\$5,476,825	-\$860,675	\$3,690,034	\$2,829,359
Energy Opportunities Fund	--	-\$28,002,876	\$50,000,000	\$21,997,124	\$402,111	\$22,399,236
FECF II (\$20,000,000)	--	-\$21,536,150	\$19,188,998	-\$2,347,152	\$3,494,098	\$1,146,946
FECF III (\$20,000,000)	--	-\$28,307,138	\$19,278,952	-\$9,028,186	\$12,090,025	\$3,061,839
Fisher All Foreign Equity	--	-\$55,165,618	\$117,000,000	\$61,834,383	\$45,218,606	\$107,052,988
FRS-GA (Georgia)	--	\$0	\$9,416,075	\$9,416,075	-\$4,661,317	\$4,754,758
FRS-LB I (NLTP AZ)	--	\$0	\$24,900,208	\$24,900,208	-\$20,418,189	\$4,482,019
FRS-LB III (ST George UT)	--	\$0	\$4,646,040	\$4,646,040	\$631,700	\$5,277,740
GA Crossover Fund (\$25,000,000)	--	-\$38,251,478	\$25,000,000	-\$13,251,478	\$22,709,695	\$9,458,217
Greenspring Associates (\$9,230,000)	--	-\$10,663,404	\$8,491,600	-\$2,171,804	\$7,282,995	\$5,111,191
Heitman America Real Estate Trust	--	\$0	\$12,000,000	\$12,000,000	\$320,837	\$12,320,837
JP Morgan India (\$8,990,000)	--	-\$2,256,002	\$8,307,355	\$6,051,353	-\$1,448,127	\$4,603,226

Cash flow statistics exclude management fees and expenses.

## Firefighters' Retirement System of Louisiana

### Since Inception Breakdown of Change in Value

	Beginning Market Value	Ending August 31, 2016				Ending Market Value
		Withdrawals	Contributions	Net Cash Flow	Net Investment Change	
Landmark Equity Partners XV (\$25,000,000)	--	-\$3,881,930	\$9,591,329	\$5,709,399	\$1,349,056	\$7,058,455
Liquidating - BlackRock Global Focused	--	-\$59,568,081	\$46,831,964	-\$12,736,117	\$12,744,283	\$8,165
Louisiana Asset Management Pool	--	-\$944,296,689	\$943,990,965	-\$305,724	\$4,688,129	\$4,382,405
Louisiana Fund I (\$1,000,000)	--	\$0	\$1,010,000	\$1,010,000	\$1,077,160	\$2,087,160
LSV International Equity Value	--	-\$17,281,912	\$103,500,000	\$86,218,088	\$17,349,761	\$103,567,849
Mellon Global Equity	--	\$0	\$62,000,000	\$62,000,000	\$4,783,807	\$66,783,807
Mellon Stock Index Fund	--	-\$80,000,001	\$275,274,245	\$195,274,245	\$72,961,641	\$268,235,886
Murphree Venture (\$2,000,000)	--	-\$848,459	\$2,058,578	\$1,210,119	\$333,359	\$1,543,478
OFI Emerging Markets	--	-\$8,500,000	\$31,500,000	\$23,000,000	-\$1,903,048	\$21,096,952
Orleans Core Fixed Income	\$0	-\$91,022,995	\$126,099,081	\$35,076,086	\$32,366,908	\$67,442,994
Putnam Risk Parity	--	\$0	\$27,400,000	\$27,400,000	-\$223,713	\$27,176,287
Rothschild U.S. SMID Core	--	\$0	\$55,500,000	\$55,500,000	-\$40,854	\$55,459,146
Sentinel Real Estate Fund (\$30,000,000)	--	-\$13,227,081	\$30,000,000	\$16,772,919	\$17,375,207	\$34,148,127
Standish	--	\$0	\$50,120,902	\$50,120,902	-\$123,416	\$49,997,486
Stone Harbor	--	\$0	\$63,000,000	\$63,000,000	-\$11,467,203	\$51,532,797
The Clinton Group Magnolia	--	-\$70,657,406	\$25,000,000	-\$45,657,406	\$45,657,406	--
Thornburg Global Opportunities	--	-\$55,362,310	\$47,500,000	-\$7,862,310	\$72,269,765	\$64,407,455
Timbervest Crossover Fund (\$16,000,000)	--	-\$5,568,000	\$13,600,000	\$8,032,000	\$2,600,959	\$10,632,959
Z TERMINATED - Argonaut Aggressive Global	--	-\$14,450,777	\$10,000,000	-\$4,450,777	\$4,450,777	--

Cash flow statistics exclude management fees and expenses.

## Information Disclaimer and Reporting Methodology

### Information Disclaimer

- Past performance is no guarantee of future results.
- All investments carry some level of risk. Diversification and other asset allocation techniques are not guaranteed to ensure profit or protect against losses.
- NEPC's source for portfolio pricing, calculation of accruals, and transaction information is the plan's custodian bank. Information on market indices and security characteristics is received from other sources external to NEPC. While NEPC has exercised reasonable professional care in preparing this report, we cannot guarantee the accuracy of all source information contained within.
- Some index returns displayed in this report or used in calculation of a policy, allocation or custom benchmark may be preliminary and subject to change.
- This report is provided as a management aid for the client's internal use only. Information contained in this report does not constitute a recommendation by NEPC.
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### Reporting Methodology

- The client's custodian bank is NEPC's preferred data source unless otherwise directed. NEPC generally reconciles custodian data to manager data. If the custodian cannot provide accurate data, manager data may be used.
- Trailing time period returns are determined by geometrically linking the holding period returns, from the first full month after inception to the report date. Rates of return are annualized when the time period is longer than a year. Performance is presented gross and/or net of manager fees as indicated on each page.
- For managers funded in the middle of a month, the "since inception" return will start with the first full month, although actual inception dates and cash flows are taken into account in all Composite calculations.
- This report may contain forward-looking statements that are based on NEPC's estimates, opinions and beliefs, but NEPC cannot guarantee that any plan will achieve its targeted return or meet other goals.