

# INVESTMENT MARKET UPDATE

(AS OF MAY 31, 2019)



Firefighters' Retirement System of Louisiana

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BOSTON | ATLANTA | CHARLOTTE | CHICAGO | DETROIT | LAS VEGAS | PORTLAND | SAN FRANCISCO

# CALENDAR YEAR INDEX PERFORMANCE

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	Q1	Apr	May	YTD
<b>S&amp;P 500</b>	26.5%	15.1%	2.1%	16.0%	32.4%	13.7%	1.4%	12.0%	21.8%	-4.4%	13.6%	4.0%	-6.4%	10.7%
<b>Russell 1000</b>	28.4%	16.1%	1.5%	16.4%	33.1%	13.2%	0.9%	12.1%	21.7%	-4.8%	14.0%	4.0%	-6.4%	11.0%
<b>Russell 2000</b>	27.2%	26.9%	-4.2%	16.3%	38.8%	4.9%	-4.4%	21.3%	14.6%	-11.0%	14.6%	3.4%	-7.8%	9.3%
<b>Russell 2500</b>	34.4%	26.7%	-2.5%	17.9%	36.8%	7.1%	-2.9%	17.6%	16.8%	-10.0%	15.8%	3.5%	-7.1%	11.3%
<b>MSCI EAFE</b>	31.8%	7.8%	-12.1%	17.3%	22.8%	-4.9%	-0.8%	1.0%	25.0%	-13.8%	10.0%	2.8%	-4.8%	7.6%
<b>MSCI EM</b>	78.5%	18.9%	-18.4%	18.2%	-2.6%	-2.2%	-14.9%	11.2%	37.3%	-14.6%	9.9%	2.1%	-7.3%	4.1%
<b>MSCI ACWI</b>	34.6%	12.7%	-7.3%	16.1%	22.8%	4.2%	-2.4%	7.9%	24.0%	-9.4%	12.2%	3.4%	-5.9%	9.1%
<b>Private Equity*</b>	13.7%	19.7%	7.9%	12.5%	20.6%	12.7%	9.6%	8.3%	13.7%	11.6%	-	-	-	-
<b>BC TIPS</b>	11.4%	6.3%	13.6%	7.0%	-8.6%	3.6%	-1.4%	4.7%	3.0%	-1.3%	3.2%	0.3%	1.7%	5.2%
<b>BC Municipal Bond</b>	12.9%	2.4%	10.7%	6.8%	-2.6%	9.1%	3.3%	0.2%	5.4%	1.3%	2.9%	0.4%	1.4%	4.7%
<b>BC Muni High Yield</b>	32.7%	7.8%	9.2%	18.1%	-5.5%	13.8%	1.8%	3.0%	9.7%	4.8%	3.8%	0.6%	1.6%	6.1%
<b>BC US Corp High Yield</b>	58.2%	15.1%	5.0%	15.8%	7.4%	2.5%	-4.5%	17.1%	7.5%	-2.1%	7.3%	1.4%	-1.2%	7.5%
<b>BC US Aggregate</b>	5.9%	6.5%	7.8%	4.2%	-2.0%	6.0%	0.5%	2.6%	3.5%	0.0%	2.9%	0.0%	1.8%	4.8%
<b>BC Global Aggregate</b>	2.6%	5.2%	6.4%	1.6%	-4.0%	-0.5%	-3.6%	1.6%	7.5%	-1.2%	2.2%	-0.3%	1.4%	3.3%
<b>BC Long Treasuries</b>	-12.9%	9.4%	29.9%	3.6%	-12.7%	25.1%	-1.2%	1.3%	8.5%	-1.8%	4.7%	-1.8%	6.5%	9.5%
<b>BC US Long Credit</b>	16.8%	10.7%	17.1%	12.7%	-6.6%	16.4%	-4.6%	10.2%	12.2%	-6.8%	7.9%	0.6%	2.4%	11.1%
<b>BC US STRIPS 20+ Yr</b>	-36.0%	10.9%	58.5%	3.0%	-21.0%	46.4%	-3.7%	1.4%	13.7%	-4.1%	6.3%	-2.8%	9.6%	13.2%
<b>JPM GBI-EM Glob Div</b>	22.0%	15.7%	-1.8%	16.8%	-9.0%	-5.7%	-14.9%	9.9%	15.2%	-6.2%	2.9%	-0.2%	0.3%	3.0%
<b>JPM EMBI Glob Div</b>	29.8%	12.2%	7.3%	17.4%	-5.3%	7.4%	1.2%	10.2%	10.1%	-4.3%	7.0%	0.2%	0.4%	7.7%
<b>CS Leveraged Loan</b>	44.9%	10.0%	1.8%	9.4%	6.2%	2.1%	-0.4%	9.9%	4.2%	1.1%	3.8%	1.6%	-0.2%	5.2%
<b>CS Hedge Fund</b>	18.6%	10.9%	-2.5%	7.7%	9.7%	4.1%	-0.7%	1.2%	7.1%	-3.2%	4.0%	1.4%	-	5.4%
<b>BBG Commodity</b>	18.9%	16.8%	-13.3%	-1.1%	-9.5%	-17.0%	-24.7%	11.8%	1.7%	-11.2%	6.3%	-0.4%	-3.4%	2.3%
<b>Alerian MLP</b>	76.4%	35.9%	13.9%	4.8%	27.6%	4.8%	-32.6%	18.3%	-6.5%	-12.4%	16.8%	-1.3%	-1.1%	13.9%
<b>FTSE NAREIT Eqty REITs</b>	28.0%	28.0%	8.3%	18.1%	2.5%	30.1%	3.2%	8.5%	5.2%	-4.6%	16.3%	-0.2%	0.2%	16.3%

Source: Bloomberg, Barclays, Alerian, Nareit, MSCI, JP Morgan, Credit Suisse, Thomson One  
 \*Private Equity return represents calendar year pooled IRR and is subject to a one quarter lag



# MARKET COMMENTARY – MAY 2019

## Market Environment

It appears markets were ready to take off for the summer as the “sell in May and go away” adage took effect. Equities declined across the board amid renewed concerns around US trade policy. The S&P 500 Index came off its record high, losing 6.4% in May; emerging market equities lost even more, falling 7.3%, according to the MSCI Emerging Markets Index, as a stronger US dollar also took a bite out of returns.

The flight-to-quality led to a decline in global yields and a subsequent rally in safe-haven assets. In the US, 10- and 30-year Treasuries declined 36 and 35 basis points, respectively. The movement in longer-dated yields caused parts of the yield curve to invert – specifically at the 10-year, 3-month and 10-year, 1-year points. As a result, the Barclays US Treasury Index and Barclays Long Treasury Index increased 2.4% and 6.5%, respectively, during the month. In credit, spreads widened with the Barclays US High Yield Index experiencing the largest change, increasing 75 basis points to 4.33%, leading to a monthly decline of 1.2%.

Within real assets, spot WTI Crude Oil reversed recent gains, falling 16.2% to \$54 amid concerns on the potential impact of tariffs on the demand for oil. Despite its losses in May, WTI Crude Oil is up 18.5% for the year.

We believe volatility is likely here to stay as the US administration revisits the issue of tariffs and the economy advances to the late stage of the market cycle. To this end, we remind clients to stay committed to a risk-balanced approach and to evaluate market opportunities should larger short-term dislocations occur.



# INVESTMENT PERFORMANCE FLASH REPORT

## Investment Performance Summary - Net of Fees

	Market Value (\$)	Policy %	% of Portfolio	1 Mo (%)	YTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
<b>Total Plan Composite</b>	<b>1,664,455,911</b>	<b>100.0</b>	<b>100.0</b>	<b>-3.3</b>	<b>6.1</b>	<b>-0.3</b>	<b>-0.9</b>	<b>6.7</b>	<b>3.6</b>	<b>6.1</b>	<b>5.6</b>	<b>Sep-92</b>
Policy Index				-3.2	6.8	1.1	0.9	7.7	5.3	--	--	Sep-92
Allocation Index				-2.9	6.7	1.3	1.1	7.6	5.0	--	--	Sep-92
<b>Total Equity Composite</b>	<b>790,295,078</b>	<b>54.0</b>	<b>47.5</b>	<b>-7.0</b>	<b>7.7</b>	<b>-4.1</b>	<b>-5.1</b>	<b>7.8</b>	<b>4.3</b>	<b>9.8</b>	<b>7.0</b>	<b>Sep-92</b>
MSCI ACWI				-5.9	9.1	-0.8	-1.3	9.1	5.2	9.4	7.3	Sep-92
<b>Domestic Equity Composite</b>	<b>355,887,776</b>	<b>22.0</b>	<b>21.4</b>	<b>-6.9</b>	<b>10.1</b>	<b>-1.1</b>	<b>-0.6</b>	<b>9.4</b>	<b>6.7</b>	<b>12.1</b>	<b>7.6</b>	<b>Sep-92</b>
Russell 3000				-6.5	10.9	1.8	2.5	11.5	9.2	13.9	9.6	Sep-92
Mellon Stock Index Fund	271,511,647		16.3	-6.4	10.7	3.1	3.7	11.7	9.6	--	10.6	Nov-13
S&P 500				-6.4	10.7	3.1	3.8	11.7	9.7	13.9	10.6	Nov-13
<b>SMID Cap Composite</b>	<b>84,376,095</b>	<b>--</b>	<b>5.1</b>	<b>-8.5</b>	<b>8.1</b>	<b>-8.6</b>	<b>-8.2</b>	<b>6.8</b>	<b>3.5</b>	<b>--</b>	<b>7.6</b>	<b>Oct-12</b>
Russell 2500				-7.1	11.3	-5.0	-4.3	9.8	7.2	13.8	11.1	Oct-12
Rothschild U.S. SMID Core	43,047,681		2.6	-7.0	9.0	-6.6	-5.7	8.8	--	--	5.3	Jul-15
Russell 2500				-7.1	11.3	-5.0	-4.3	9.8	7.2	13.8	6.4	Jul-15
QMA SMID	41,328,414		2.5	-10.1	7.2	--	--	--	--	--	-12.6	Aug-18
Russell 2500				-7.1	11.3	-5.0	-4.3	9.8	7.2	13.8	-6.8	Aug-18
<b>International Equity Composite</b>	<b>197,916,608</b>	<b>16.0</b>	<b>11.9</b>	<b>-6.7</b>	<b>6.6</b>	<b>-5.4</b>	<b>-7.5</b>	<b>6.6</b>	<b>1.7</b>	<b>--</b>	<b>5.1</b>	<b>Oct-12</b>
MSCI ACWI ex USA				-5.4	7.2	-4.5	-6.3	6.7	1.3	5.8	4.6	Oct-12
LSV International Equity Value	97,550,720		5.9	-6.2	4.6	-6.4	-9.6	6.5	1.4	6.9	5.2	Oct-04
MSCI Custom Benchmark				-5.4	7.2	-4.5	-6.3	6.7	1.3	5.7	4.7	Oct-04
Fisher All Foreign Equity	100,365,888		6.0	-7.3	8.7	-4.5	-5.5	6.8	2.1	7.2	6.2	Oct-04
MSCI ACWI ex USA				-5.4	7.2	-4.5	-6.3	6.7	1.3	5.8	5.5	Oct-04
<b>Global Equity Composite</b>	<b>149,577,223</b>	<b>10.0</b>	<b>9.0</b>	<b>-8.2</b>	<b>5.6</b>	<b>-8.6</b>	<b>-9.7</b>	<b>4.8</b>	<b>2.6</b>	<b>--</b>	<b>7.7</b>	<b>Oct-12</b>
MSCI ACWI				-5.9	9.1	-0.8	-1.3	9.1	5.2	9.4	8.3	Oct-12
Thornburg Global Opportunities	56,402,137		3.4	-10.1	7.1	-11.8	-13.6	2.5	2.7	10.0	9.2	Oct-04
MSCI ACWI				-5.9	9.1	-0.8	-1.3	9.1	5.2	9.4	6.8	Oct-04
Boston Partners Global Equity	93,167,080		5.6	-7.0	4.8	-6.6	-7.1	--	--	--	6.4	Nov-16
MSCI ACWI				-5.9	9.1	-0.8	-1.3	9.1	5.2	9.4	9.4	Nov-16
<b>Emerging Markets Equity</b>	<b>86,913,470</b>	<b>6.0</b>	<b>5.2</b>	<b>-6.4</b>	<b>4.6</b>	<b>-6.5</b>	<b>-11.3</b>	<b>9.1</b>	<b>0.9</b>	<b>--</b>	<b>1.6</b>	<b>Oct-13</b>
MSCI Emerging Markets				-7.3	4.1	-4.7	-8.7	9.9	1.8	5.0	2.5	Oct-13
Acadian Emerging Markets Equity	57,345,286		3.4	-6.5	2.7	-8.2	-14.0	8.4	0.6	--	1.1	Dec-13
MSCI Emerging Markets				-7.3	4.1	-4.7	-8.7	9.9	1.8	5.0	2.0	Dec-13
OFI Emerging Markets	29,568,184		1.8	-6.2	8.7	-3.1	-5.5	10.9	2.3	--	2.6	Jan-14
MSCI Emerging Markets				-7.3	4.1	-4.7	-8.7	9.9	1.8	5.0	2.3	Jan-14

Returns are net of manager fees.

Results for periods longer than one year are annualized.

Fiscal Year ends June 30th.

SMID Cap Composite 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.



## Firefighters' Retirement System of Louisiana

# INVESTMENT PERFORMANCE FLASH REPORT

	Market Value (\$)	Policy %	% of Portfolio	1 Mo (%)	YTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
<b>Total Fixed Income Composite</b>	<b>512,685,146</b>	<b>26.0</b>	<b>30.8</b>	<b>1.4</b>	<b>4.7</b>	<b>5.4</b>	<b>4.4</b>	<b>3.8</b>	<b>2.0</b>	<b>--</b>	<b>1.7</b>	<b>Oct-12</b>
<i>Total Fixed Income Custom Benchmark</i>				1.5	4.5	6.1	5.5	2.8	1.6	3.2	1.4	Oct-12
<b>Core Fixed Income</b>	<b>384,242,531</b>	<b>18.0</b>	<b>23.1</b>	<b>1.7</b>	<b>4.9</b>	<b>6.5</b>	<b>6.4</b>	<b>4.1</b>	<b>3.3</b>	<b>--</b>	<b>3.2</b>	<b>Dec-10</b>
<i>BBgBarc US Aggregate TR</i>				1.8	4.8	6.5	6.4	2.5	2.7	3.8	3.1	Dec-10
Orleans Core Fixed Income	91,639,798		5.5	1.4	5.2	6.6	6.4	2.8	2.6	4.2	5.6	Aug-92
<i>BBgBarc US Aggregate TR</i>				1.8	4.8	6.5	6.4	2.5	2.7	3.8	5.4	Aug-92
Blackrock US Debt	292,602,733		17.6	1.7	4.8	6.5	6.4	2.5	--	--	2.7	Nov-14
<i>BBgBarc US Aggregate TR</i>				1.8	4.8	6.5	6.4	2.5	2.7	3.8	2.7	Nov-14
<b>US TIPS Composite</b>	<b>53,047,181</b>	<b>3.0</b>	<b>3.2</b>	<b>1.6</b>	<b>5.2</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>4.9</b>	<b>Oct-18</b>
Blackrock US TIPS Index	53,047,181		3.2	1.6	5.2	--	--	--	--	--	4.9	Oct-18
<i>BBgBarc US TIPS TR</i>				1.7	5.3	3.9	4.4	2.5	1.6	3.6	4.8	Oct-18
<b>Emerging Markets Debt</b>	<b>75,395,434</b>	<b>5.0</b>	<b>4.5</b>	<b>0.2</b>	<b>3.4</b>	<b>1.4</b>	<b>-2.6</b>	<b>3.0</b>	<b>-2.9</b>	<b>--</b>	<b>-2.7</b>	<b>Nov-13</b>
<i>JP Morgan GBI - EM Global Diversified Index</i>				0.3	3.0	3.3	0.3	4.4	-1.3	3.0	-1.1	Nov-13
Stone Harbor	75,395,434		4.5	0.2	3.4	1.4	-2.6	3.0	-2.9	--	-2.7	Nov-13
<i>JP Morgan GBI - EM Global Diversified Index</i>				0.3	3.0	3.3	0.3	4.4	-1.3	3.0	-1.1	Nov-13

Performance and values are preliminary and subject to change.

Results for periods longer than one year are annualized.

Fiscal YTD ends June 30th.

Global Equity Composite start date is 10/1/2012.

International Equity Composites start date is 10/1/2012.

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<b>GAA Composite</b>	<b>160,376,669</b>	<b>10.0</b>	<b>9.6</b>	<b>-2.2</b>	<b>7.9</b>	<b>0.3</b>	<b>0.0</b>	<b>5.5</b>	<b>2.9</b>	<b>--</b>	<b>3.2</b>	<b>Apr-14</b>
60% MSCI World (Net) / 40% FTSE WGBI				-2.8	7.1	1.4	1.3	6.1	3.8	6.9	4.1	Apr-14
Blackrock Global Allocation	82,781,571		5.0	-2.8	6.5	0.0	-0.5	5.5	3.2	--	3.5	Apr-14
60% MSCI World (Net) / 40% FTSE WGBI				-2.8	7.1	1.4	1.3	6.1	3.8	6.9	4.1	Apr-14
AQR Global Risk Premium – EL	77,595,099		4.7	-1.6	9.0	2.0	1.2	5.5	2.5	--	3.1	May-14
60% MSCI World (Net) / 40% FTSE WGBI				-2.8	7.1	1.4	1.3	6.1	3.8	6.9	4.0	May-14
<b>Total Alternative Composite</b>	<b>182,044,093</b>	<b>10.0</b>	<b>10.9</b>	<b>0.0</b>	<b>0.0</b>	<b>2.2</b>	<b>4.5</b>	<b>6.5</b>	<b>2.6</b>	<b>3.9</b>	<b>2.2</b>	<b>Jun-05</b>
<b>Private Equity Composite</b>	<b>62,729,434</b>	<b>4.0</b>	<b>3.8</b>	<b>0.0</b>	<b>0.0</b>	<b>1.4</b>	<b>5.3</b>	<b>8.6</b>	<b>0.3</b>	<b>2.7</b>	<b>-2.5</b>	<b>Jul-05</b>
Cambridge Associates US All PE				0.0	0.0	2.1	7.6	13.6	10.8	14.1	12.4	Jul-05
Murphree Venture (\$2,000,000)	694,114		0.0	0.0	0.0	-0.6	-10.0	-23.4	-16.0	-7.6	-6.0	Sep-05
Louisiana Fund I (\$1,000,000)	1,734,415		0.1	0.0	0.0	0.0	-0.1	-6.0	-3.7	-1.0	-6.1	Jul-05
DTC Private Equity II-Q, L.P. (\$7,500,000)	1,278,367		0.1	0.0	0.0	-5.3	-3.2	5.6	5.2	8.2	5.6	Feb-06
Greenspring Associates III (\$9,230,000)	3,058,840		0.2	0.0	0.0	-8.7	-8.7	1.0	6.2	11.9	5.4	Feb-06
DCM Private Equity II (\$7,500,000)	1,315,464		0.1	0.0	0.0	-1.9	-1.5	-0.6	-4.0	2.3	-1.3	Feb-06
FECF II (\$20,000,000)	185,502		0.0	0.0	0.0	-12.3	-10.9	9.1	0.1	9.5	9.2	Mar-08
GA Crossover Fund (\$25,000,000)	4,410,228		0.3	0.0	0.0	0.8	3.3	10.3	10.8	18.1	13.8	Jan-08
CCMP Capital Investors III (\$15,000,000)	13,933,690		0.8	0.0	0.0	-3.0	4.0	10.0	--	--	9.7	Oct-14
Landmark Equity Partners XV (\$25,000,000)	10,264,050		0.6	0.0	0.0	5.8	10.5	14.5	--	--	15.8	Dec-14
Harbourvest IV (\$20,000,000)	17,391,584		1.0	0.0	0.0	7.4	11.4	--	--	--	11.1	Nov-16
Mesirow (\$35,000,000)												

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

Fiscal YTD ends June 30th.

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 from 3/1/2016 to 12/31/2018; 70% Barclays Aggregate/20% JPM GBI EM Diversified/ 10% Barclays US TIPS going forward. Total Fixed Income Composite start date is 10/1/2012.



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# INVESTMENT PERFORMANCE FLASH REPORT

	Market Value (\$)	Policy %	% of Portfolio	1 Mo (%)	YTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
<b>Real Estate Composite</b>	<b>119,314,659</b>	<b>6.0</b>	<b>7.2</b>	<b>0.0</b>	<b>0.0</b>	<b>2.6</b>	<b>4.2</b>	<b>5.6</b>	<b>5.3</b>	<b>--</b>	<b>5.1</b>	<b>Dec-09</b>
<i>NCREIF Property Index</i>				0.0	1.8	4.9	6.8	7.1	9.1	8.5	10.0	Dec-09
Sentinel Real Estate Fund (\$30,000,000)	36,872,376		2.2	0.0	0.0	3.2	5.5	7.1	8.8	10.0	6.4	Feb-06
JP Morgan India (\$8,990,000)	1,962,601		0.1	0.0	0.0	-6.1	-14.3	-13.4	-8.6	-3.6	-13.3	Apr-07
Timbervest Crossover Fund (\$16,000,000)	6,585,791		0.4	0.0	0.0	-1.9	1.4	-4.9	-4.1	-1.1	-1.5	Apr-08
AEW Partners VI LP (\$20,000,000)	8,818,338		0.5	0.0	0.0	11.9	13.5	14.6	16.7	--	13.9	Mar-10
AEW Core Property (\$12,000,000)	16,039,437		1.0	0.0	0.0	3.1	5.2	6.3	--	--	7.4	May-15
FRS-GA (Georgia)	3,463,900		0.2	0.0	0.0	0.0	-0.8	-10.0	-8.7	-9.8	-8.9	Jun-08
FRS-LB I (NLTP AZ)	7,380,981		0.4	0.0	0.0	0.0	-0.3	18.1	11.5	-13.6	-11.5	Jun-07
FRS-LB III (ST George UT)	9,288,030		0.6	0.0	0.0	0.0	0.0	5.8	3.5	3.0	2.7	Jun-08
ASB Real Estate Fund	14,130,455		0.8	0.0	0.0	3.2	5.2	5.4	--	--	5.1	Jan-16
Heitman America Real Estate Trust	14,772,750		0.9	0.0	0.0	2.5	4.4	6.2	--	--	6.9	Nov-15
<b>Total Cash (\$9 MM)</b>	<b>19,054,924</b>	<b>--</b>	<b>1.1</b>	<b>0.2</b>	<b>1.0</b>	<b>2.1</b>	<b>2.2</b>	<b>1.3</b>	<b>0.8</b>	<b>0.5</b>	<b>2.8</b>	<b>Jun-92</b>
<i>91 Day T-Bills</i>				0.2	1.0	2.1	2.2	1.3	0.8	0.5	2.4	Jun-92

Results for periods longer than one year are annualized.

Fiscal YTD ends June 30th.

Real Estate valuations are as of 12/31/2018 and adjusted for cash flows.

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

Harbourvest IV was funded 10/01/2016.

Private Equity valuations are as of 12/31/2018 and adjusted for cash flows.



## Firefighters' Retirement System of Louisiana

# CURRENT MONTH CHANGE IN VALUE

Total Cash Flow Summary							
Month Ending May 31, 2019							
	Beginning Market Value	Contributions	Withdrawals	Net Cash Flow	Fees	Net Investment Change	Ending Market Value
Acadian Emerging Markets Equity	\$61,339,126	\$0	\$0	\$0	\$0	-\$3,993,840	\$57,345,286
AEW Core Property (\$12,000,000)	\$16,039,437	\$0	\$0	\$0	\$0	\$0	\$16,039,437
AEW Partners VI LP (\$20,000,000)	\$8,818,338	\$0	\$0	\$0	\$0	\$0	\$8,818,338
AQR Global Risk Premium – EL	\$78,854,759	\$0	\$0	\$0	-\$61,429	-\$1,259,661	\$77,595,099
ASB Real Estate Fund	\$14,091,392	\$39,063	\$0	\$39,063	\$0	\$0	\$14,130,455
Blackrock Global Allocation	\$84,936,204	\$236,855	\$0	\$236,855	-\$236,855	-\$2,391,488	\$82,781,571
Blackrock US Debt	\$287,508,735	\$66,138	\$0	\$66,138	-\$66,138	\$5,027,860	\$292,602,733
Blackrock US TIPS Index	\$52,186,273	\$16,034	-\$4,805	\$11,229	-\$11,229	\$849,679	\$53,047,181
Boston Partners Global Equity	\$100,223,406	\$0	-\$129,711	-\$129,711	-\$41,945	-\$6,926,614	\$93,167,080
Cash/Clearing Account	\$20,201,127	\$260,198	-\$6,009,412	-\$5,749,214	\$0	\$37,615	\$14,489,528
CCMP Capital Investors III (\$15,000,000)	\$13,933,690	\$0	\$0	\$0	\$0	\$0	\$13,933,690
DCM Private Equity II (\$7,500,000)	\$1,315,464	\$0	\$0	\$0	\$0	\$0	\$1,315,464
DTC Private Equity II-Q, L.P. (\$7,500,000)	\$1,278,367	\$0	\$0	\$0	\$0	\$0	\$1,278,367
Energy Opportunities Fund	\$19,152	\$4,955	\$0	\$4,955	-\$24,076	-\$24,074	\$33
FECP II (\$20,000,000)	\$185,502	\$0	\$0	\$0	\$0	\$0	\$185,502
Fisher All Foreign Equity	\$108,218,022	\$0	-\$202	-\$202	-\$182,572	-\$7,851,932	\$100,365,888
FRS-GA (Georgia)	\$3,463,900	\$0	\$0	\$0	\$0	\$0	\$3,463,900
FRS-LB I (NLTP AZ)	\$7,380,981	\$0	\$0	\$0	\$0	\$0	\$7,380,981
FRS-LB III (ST George UT)	\$9,288,030	\$0	\$0	\$0	\$0	\$0	\$9,288,030
GA Crossover Fund (\$25,000,000)	\$4,410,228	\$0	\$0	\$0	\$0	\$0	\$4,410,228
Greenspring Associates III (\$9,230,000)	\$3,151,140	\$0	-\$92,300	-\$92,300	\$0	\$0	\$3,058,840
Harbourvest IV (\$20,000,000)	\$17,391,584	\$0	\$0	\$0	\$0	\$0	\$17,391,584
HarbourVest Partners XI Buyout (\$35,000,000)	\$0	\$0	\$0	\$0	\$0	\$0	\$0



## Firefighters' Retirement System of Louisiana

# CURRENT MONTH CHANGE IN VALUE

	Month Ending May 31, 2019						
	Beginning Market Value	Contributions	Withdrawals	Net Cash Flow	Fees	Net Investment Change	Ending Market Value
Heitman America Real Estate Trust	\$14,772,750	\$0	\$0	\$0	\$0	\$0	\$14,772,750
JP Morgan India (\$8,990,000)	\$1,962,601	\$0	\$0	\$0	\$0	\$0	\$1,962,601
Landmark Equity Partners XV (\$25,000,000)	\$10,299,259	\$117,824	-\$153,033	-\$35,209	\$0	\$0	\$10,264,050
Liquidating - BlackRock Global Focused	\$7,961	\$0	\$0	\$0	\$0	\$45	\$8,006
Louisiana Asset Management Pool	\$4,555,902	\$0	\$0	\$0	\$0	\$9,493	\$4,565,395
Louisiana Fund I (\$1,000,000)	\$1,734,415	\$0	\$0	\$0	\$0	\$0	\$1,734,415
LSV International Equity Value	\$104,014,249	\$0	\$0	\$0	\$0	-\$6,463,529	\$97,550,720
Mellon Stock Index Fund	\$289,940,778	\$0	\$0	\$0	\$0	-\$18,429,131	\$271,511,647
Mesirow (\$35,000,000)	\$6,888,180	\$1,575,000	\$0	\$1,575,000	\$0	\$0	\$8,463,180
Murphree Venture (\$2,000,000)	\$694,114	\$0	\$0	\$0	\$0	\$0	\$694,114
OFI Emerging Markets	\$31,537,466	\$0	\$0	\$0	-\$21,191	-\$1,969,282	\$29,568,184
Orleans Core Fixed Income	\$90,384,168	\$0	\$0	\$0	-\$24,827	\$1,255,630	\$91,639,798
Putnam Risk Parity	\$0	\$0	\$0	\$0	\$0	\$0	\$0
QMA SMID	\$45,965,894	\$0	\$0	\$0	-\$55,326	-\$4,637,480	\$41,328,414
Rothschild U.S. SMID Core	\$46,271,303	\$0	\$0	\$0	-\$78,502	-\$3,223,622	\$43,047,681
Sentinel Real Estate Fund (\$30,000,000)	\$36,872,376	\$0	\$0	\$0	\$0	\$0	\$36,872,376
Stone Harbor	\$75,213,758	\$0	\$0	\$0	-\$53,405	\$181,676	\$75,395,434
Thornburg Global Opportunities	\$62,708,951	\$0	\$0	\$0	-\$89,019	-\$6,306,814	\$56,402,137
Timbervest Crossover Fund (\$16,000,000)	\$6,585,791	\$0	\$0	\$0	\$0	\$0	\$6,585,791
<b>Total</b>	<b>\$1,724,644,774</b>	<b>\$2,316,068</b>	<b>-\$6,389,463</b>	<b>-\$4,073,396</b>	<b>-\$946,515</b>	<b>-\$56,115,468</b>	<b>\$1,664,455,911</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 FYTD CHANGE IN VALUE

Total Cash Flow Summary							
Fiscal YTD Ending May 31, 2019							
	Beginning Market Value	Contributions	Withdrawals	Net Cash Flow	Fees	Net Investment Change	Ending Market Value
Acadian Emerging Markets Equity	\$57,333,700	\$5,000,000	\$0	\$5,000,000	-\$424,495	-\$4,988,414	\$57,345,286
AEW Core Property (\$12,000,000)	\$15,558,497	\$0	\$0	\$0	\$0	\$480,940	\$16,039,437
AEW Partners VI LP (\$20,000,000)	\$8,213,548	\$0	-\$370,947	-\$370,947	\$0	\$975,737	\$8,818,338
AQR Global Risk Premium – EL	\$45,839,208	\$61,400,000	-\$30,700,000	\$30,700,000	-\$435,068	\$1,055,891	\$77,595,099
ASB Real Estate Fund	\$13,622,620	\$76,913	\$0	\$76,913	\$0	\$430,921	\$14,130,455
Blackrock Global Allocation	\$82,124,034	\$640,399	\$0	\$640,399	-\$640,399	\$17,138	\$82,781,571
Blackrock US Debt	\$206,535,451	\$70,124,053	\$0	\$70,124,053	-\$124,053	\$15,943,229	\$292,602,733
Blackrock US TIPS Index	--	\$50,016,034	-\$4,805	\$50,011,229	-\$11,229	\$3,035,953	\$53,047,181
Boston Partners Global Equity	\$100,016,730	\$0	-\$732,091	-\$732,091	-\$482,895	-\$6,117,559	\$93,167,080
Cash/Clearing Account	\$35,957,739	\$236,288,864	-\$258,031,566	-\$21,742,702	\$0	\$274,491	\$14,489,528
CCMP Capital Investors III (\$15,000,000)	\$14,180,095	\$179,575	\$0	\$179,575	\$0	-\$425,980	\$13,933,690
DCM Private Equity II (\$7,500,000)	\$1,727,569	\$2,152	-\$384,782	-\$382,630	\$0	-\$29,474	\$1,315,464
DTC Private Equity II-Q, L.P. (\$7,500,000)	\$1,729,658	\$0	-\$375,000	-\$375,000	\$0	-\$76,291	\$1,278,367
Energy Opportunities Fund	\$16,635,881	\$4,955	-\$11,447,207	-\$11,442,252	-\$132,481	-\$5,193,596	\$33
FECP II (\$20,000,000)	\$388,146	\$0	-\$166,100	-\$166,100	\$0	-\$36,544	\$185,502
Fisher All Foreign Equity	\$130,665,252	\$0	-\$25,141,939	-\$25,141,939	-\$727,591	-\$5,157,424	\$100,365,888
FRS-GA (Georgia)	\$3,463,900	\$0	\$0	\$0	\$0	\$0	\$3,463,900
FRS-LB I (NLTP AZ)	\$7,380,981	\$0	\$0	\$0	\$0	\$0	\$7,380,981
FRS-LB III (ST George UT)	\$9,288,030	\$0	\$0	\$0	\$0	\$0	\$9,288,030
GA Crossover Fund (\$25,000,000)	\$4,373,664	\$0	\$0	\$0	\$0	\$36,564	\$4,410,228
Greenspring Associates III (\$9,230,000)	\$4,105,060	\$0	-\$719,940	-\$719,940	\$0	-\$326,280	\$3,058,840
Harbourvest IV (\$20,000,000)	\$15,779,871	\$1,602,396	-\$1,157,769	\$444,627	\$0	\$1,167,086	\$17,391,584
HarbourVest Partners XI Buyout (\$35,000,000)	--	\$0	\$0	\$0	\$0	\$0	\$0



## Firefighters' Retirement System of Louisiana

# CURRENT FYTD CHANGE IN VALUE

	Fiscal YTD Ending May 31, 2019						
	Beginning Market Value	Contributions	Withdrawals	Net Cash Flow	Fees	Net Investment Change	Ending Market Value
Heitman America Real Estate Trust	\$14,416,665	\$0	\$0	\$0	\$0	\$356,085	\$14,772,750
JP Morgan India (\$8,990,000)	\$2,089,471	\$0	\$0	\$0	\$0	-\$126,870	\$1,962,601
Landmark Equity Partners XV (\$25,000,000)	\$11,931,304	\$981,786	-\$3,260,843	-\$2,279,057	\$0	\$611,803	\$10,264,050
Liquidating - BlackRock Global Focused	\$12,561	\$0	-\$4,409	-\$4,409	\$0	-\$145	\$8,006
Louisiana Asset Management Pool	\$4,470,256	\$0	\$0	\$0	\$0	\$95,139	\$4,565,395
Louisiana Fund I (\$1,000,000)	\$1,734,135	\$0	\$0	\$0	\$0	\$280	\$1,734,415
LSV International Equity Value	\$129,346,061	\$0	-\$25,030,096	-\$25,030,096	-\$848,194	-\$6,765,245	\$97,550,720
Mellon Stock Index Fund	\$331,287,394	\$62,705	-\$70,000,000	-\$69,937,295	-\$62,705	\$10,161,547	\$271,511,647
Mesirow (\$35,000,000)	--	\$8,678,620	\$0	\$8,678,620	\$0	-\$215,440	\$8,463,180
Murphree Venture (\$2,000,000)	\$697,980	\$0	\$0	\$0	\$0	-\$3,866	\$694,114
OFI Emerging Markets	\$27,471,846	\$6,000,000	-\$3,000,000	\$3,000,000	-\$215,251	-\$903,661	\$29,568,184
Orleans Core Fixed Income	\$66,932,337	\$20,000,000	\$0	\$20,000,000	-\$96,682	\$4,707,461	\$91,639,798
Putnam Risk Parity	\$31,359,572	\$579,825	-\$31,259,096	-\$30,679,271	-\$145,432	-\$680,301	\$0
QMA SMID	\$43,078,804	\$3,000,469	\$0	\$3,000,469	-\$165,936	-\$4,750,859	\$41,328,414
Rothschild U.S. SMID Core	\$46,082,566	\$0	\$0	\$0	-\$343,767	-\$3,034,884	\$43,047,681
Sentinel Real Estate Fund (\$30,000,000)	\$37,256,961	\$0	-\$1,542,399	-\$1,542,399	\$0	\$1,157,814	\$36,872,376
Stone Harbor	\$74,365,185	\$0	\$0	\$0	-\$576,319	\$1,030,248	\$75,395,434
Thornburg Global Opportunities	\$63,913,049	\$0	\$0	\$0	-\$358,098	-\$7,510,912	\$56,402,137
Timbervest Crossover Fund (\$16,000,000)	\$7,948,376	\$0	-\$1,215,895	-\$1,215,895	\$0	-\$146,690	\$6,585,791
Z-Terminated Advisory Research SMID	\$2,776	\$0	-\$2,776	-\$2,776	\$0	\$0	--
<b>Total</b>	<b>\$1,669,316,932</b>	<b>\$464,638,747</b>	<b>-\$464,547,660</b>	<b>\$91,087</b>	<b>-\$5,790,594</b>	<b>-\$4,952,108</b>	<b>\$1,664,455,911</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 CHANGE IN VALUE

Total Cash Flow Summary						
	Beginning Market Value	Contributions	Withdrawals	Net Cash Flow	Net Investment Change	Ending Market Value
Acadian Emerging Markets Equity	--	\$65,000,000	-\$10,000,000	\$55,000,000	\$2,345,286	\$57,345,286
AEW Core Property (\$12,000,000)	--	\$12,000,000	\$0	\$12,000,000	\$4,039,437	\$16,039,437
AEW Partners VI LP (\$20,000,000)	--	\$18,420,450	-\$24,051,444	-\$5,630,994	\$14,449,332	\$8,818,338
AQR Global Risk Premium – EL	--	\$101,500,000	-\$30,700,000	\$70,800,000	\$6,795,099	\$77,595,099
ASB Real Estate Fund	--	\$12,293,193	-\$141,910	\$12,151,283	\$1,979,172	\$14,130,455
Blackrock Global Allocation	--	\$68,682,390	\$0	\$68,682,390	\$14,099,180	\$82,781,571
Blackrock US Debt	--	\$327,536,521	-\$58,500,000	\$269,036,521	\$23,566,213	\$292,602,733
Blackrock US TIPS Index	--	\$50,016,034	-\$4,805	\$50,011,229	\$3,035,953	\$53,047,181
Boston Partners Global Equity	--	\$80,939,406	-\$1,330,149	\$79,609,257	\$13,557,824	\$93,167,080
Cash/Clearing Account	--	\$2,409,096,895	-\$2,398,239,607	\$10,857,288	\$3,632,241	\$14,489,528
CCMP Capital Investors III (\$15,000,000)	--	\$11,821,975	-\$1,607,574	\$10,214,401	\$3,719,289	\$13,933,690
DCM Private Equity II (\$7,500,000)	--	\$8,232,280	-\$7,231,883	\$1,000,397	\$315,067	\$1,315,464
DTC Private Equity II-Q, L.P. (\$7,500,000)	--	\$5,480,845	-\$8,287,500	-\$2,806,655	\$4,085,022	\$1,278,367
Energy Opportunities Fund	--	\$50,039,277	-\$44,450,083	\$5,589,194	-\$5,589,161	\$33
FECP II (\$20,000,000)	--	\$19,188,998	-\$22,302,362	-\$3,113,364	\$3,298,866	\$185,502
Fisher All Foreign Equity	--	\$117,180,807	-\$80,307,557	\$36,873,250	\$63,492,638	\$100,365,888
FRS-GA (Georgia)	--	\$9,416,075	\$0	\$9,416,075	-\$5,952,175	\$3,463,900
FRS-LB I (NLTP AZ)	--	\$24,900,208	\$0	\$24,900,208	-\$17,519,227	\$7,380,981
FRS-LB III (ST George UT)	--	\$6,878,923	\$0	\$6,878,923	\$2,409,107	\$9,288,030
GA Crossover Fund (\$25,000,000)	--	\$25,000,000	-\$46,276,687	-\$21,276,687	\$25,686,915	\$4,410,228
Greenspring Associates III (\$9,230,000)	--	\$8,491,600	-\$12,973,318	-\$4,481,718	\$7,540,558	\$3,058,840
Harbourvest IV (\$20,000,000)	--	\$17,325,303	-\$2,907,769	\$14,417,534	\$2,974,050	\$17,391,584

Cash flow statistics exclude management fees and expenses.



## Firefighters' Retirement System of Louisiana

# SINCE INCEPTION CHANGE IN VALUE

	Beginning Market Value	Ending May 31, 2019				Ending Market Value
		Contributions	Withdrawals	Net Cash Flow	Net Investment Change	
HarbourVest Partners XI Buyout (\$35,000,000)	--	\$0	\$0	\$0	\$0	\$0
Heitman America Real Estate Trust	--	\$12,000,000	\$0	\$12,000,000	\$2,772,750	\$14,772,750
JP Morgan India (\$8,990,000)	--	\$8,307,355	-\$3,814,303	\$4,493,052	-\$2,530,451	\$1,962,601
Landmark Equity Partners XV (\$25,000,000)	--	\$17,909,154	-\$12,829,420	\$5,079,734	\$5,184,316	\$10,264,050
Liquidating - BlackRock Global Focused	--	\$46,832,890	-\$59,572,953	-\$12,740,063	\$12,748,070	\$8,006
Louisiana Asset Management Pool	--	\$943,990,965	-\$944,296,689	-\$305,724	\$4,871,119	\$4,565,395
Louisiana Fund I (\$1,000,000)	--	\$1,010,000	\$0	\$1,010,000	\$724,415	\$1,734,415
LSV International Equity Value	--	\$103,818,122	-\$42,313,413	\$61,504,709	\$36,046,011	\$97,550,720
Mellon Stock Index Fund	--	\$275,475,823	-\$164,500,001	\$110,975,822	\$160,535,825	\$271,511,647
Mesirow (\$35,000,000)	--	\$8,678,620	\$0	\$8,678,620	-\$215,440	\$8,463,180
Murphree Venture (\$2,000,000)	--	\$2,058,578	-\$848,459	\$1,210,119	-\$516,005	\$694,114
OFI Emerging Markets	--	\$37,500,000	-\$11,500,000	\$26,000,000	\$3,568,184	\$29,568,184
Orleans Core Fixed Income	\$0	\$146,099,081	-\$91,022,995	\$55,076,086	\$36,563,712	\$91,639,798
Putnam Risk Parity	--	\$27,979,825	-\$31,259,096	-\$3,279,271	\$3,279,271	\$0
QMA SMID	--	\$3,000,469	\$0	\$3,000,469	\$38,327,945	\$41,328,414
Rothschild U.S. SMID Core	--	\$55,500,000	-\$27,500,000	\$28,000,000	\$15,047,681	\$43,047,681
Sentinel Real Estate Fund (\$30,000,000)	--	\$30,000,000	-\$17,963,220	\$12,036,780	\$24,835,596	\$36,872,376
Stone Harbor	--	\$86,000,000	\$0	\$86,000,000	-\$10,604,566	\$75,395,434
Thornburg Global Opportunities	--	\$47,500,000	-\$70,306,258	-\$22,806,258	\$79,208,395	\$56,402,137
Timbervest Crossover Fund (\$16,000,000)	--	\$13,600,000	-\$8,263,895	\$5,336,105	\$1,249,686	\$6,585,791

Cash flow statistics exclude management fees and expenses.



### **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.
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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.

