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Firefighters' Retirement System of Louisiana

Investment Market Update
(As of November 30, 2016)

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Index Performance Summary as of 11/30/2016

	2009	2010	2011	2012	2013	2014	2015	Q1	Q2	Q3	Oct	Nov	YTD
Russell 2000	27.2%	26.9%	-4.2%	16.3%	38.8%	4.9%	-4.4%	-1.5%	3.8%	9.0%	-4.8%	11.2%	18.0%
Russell 2500	34.4%	26.7%	-2.5%	17.9%	36.8%	7.1%	-2.9%	0.4%	3.6%	6.6%	-4.1%	8.5%	15.3%
Barclays US Corporate HY	58.2%	15.1%	5.0%	15.8%	7.4%	2.5%	-4.5%	3.4%	5.5%	5.6%	0.4%	-0.5%	15.0%
Alerian MLP	76.4%	35.9%	13.9%	4.8%	27.6%	4.8%	-32.6%	-4.2%	19.7%	1.1%	-4.5%	2.3%	13.3%
MSCI EM	78.5%	18.9%	-18.4%	18.2%	-2.6%	-2.2%	-14.9%	5.7%	0.7%	9.0%	0.2%	-4.6%	10.9%
Russell 1000	28.4%	16.1%	1.5%	16.4%	33.1%	13.2%	0.9%	1.2%	2.5%	4.0%	-2.0%	3.9%	10.0%
S&P 500	26.5%	15.1%	2.1%	16.0%	32.4%	13.7%	1.4%	1.3%	2.5%	3.9%	-1.8%	3.7%	9.8%
Bloomberg Commodity	18.9%	16.8%	-13.3%	-1.1%	-9.5%	-17.0%	-24.7%	0.4%	12.8%	-3.9%	-0.5%	1.3%	9.8%
JPM EMBI Global Diversified	29.8%	12.2%	7.3%	17.4%	-5.3%	7.4%	1.2%	5.0%	5.0%	4.0%	-1.2%	-4.1%	8.7%
Credit Suisse Leveraged Loan	44.9%	10.0%	1.8%	9.4%	6.2%	2.1%	-0.4%	1.3%	2.9%	3.1%	0.8%	0.3%	8.6%
Barclays US Long Credit	16.8%	10.7%	17.1%	12.7%	-6.6%	16.4%	-4.6%	6.8%	6.7%	2.3%	-2.1%	-4.9%	8.5%
JPM GBI-EM Global Div	22.0%	15.7%	-1.8%	16.8%	-9.0%	-5.7%	-14.9%	11.0%	2.7%	2.7%	-0.8%	-7.0%	7.9%
Barclays US Govt/Credit Long	1.9%	10.2%	22.5%	8.8%	-8.8%	19.3%	-3.3%	7.3%	6.5%	1.2%	-2.8%	-5.8%	5.9%
MSCI ACWI	34.6%	12.7%	-7.3%	16.1%	22.8%	4.2%	-2.4%	0.2%	1.0%	5.3%	-1.7%	0.8%	5.6%
FTSE NAREIT Equity REITs	28.0%	28.0%	8.3%	18.1%	2.5%	30.1%	3.2%	6.0%	7.0%	-1.4%	-5.7%	-1.7%	3.7%
Barclays US Agg Bond	5.9%	6.5%	7.8%	4.2%	-2.0%	6.0%	0.5%	3.0%	2.2%	0.5%	-0.8%	-2.4%	2.5%
Citi WGBI	2.6%	5.2%	6.4%	1.6%	-4.0%	-0.5%	-3.6%	7.1%	3.4%	0.3%	-3.4%	-4.6%	2.3%
Barclays US STRIPS 20+ Yr	-36.0%	10.9%	58.5%	3.0%	-21.0%	46.4%	-3.7%	11.4%	9.6%	-0.2%	-6.2%	-10.5%	2.3%
Barclays US Agg Interm	6.5%	6.1%	6.0%	3.6%	-1.0%	4.1%	1.2%	2.3%	1.4%	0.3%	-0.4%	-1.7%	1.9%
BC US Govt/Credit 1-3 Yr	3.8%	2.8%	1.6%	1.3%	0.6%	0.8%	0.7%	1.0%	0.7%	0.0%	0.0%	-0.4%	1.2%
Credit Suisse Hedge Fund	18.6%	10.9%	-2.5%	7.7%	9.7%	4.1%	-0.7%	-2.2%	0.6%	1.7%	-0.2%	-	-0.1%
Barclays Municipal	12.9%	2.4%	10.7%	6.8%	-2.6%	9.1%	3.3%	1.7%	2.6%	-0.3%	-1.0%	-3.7%	-0.9%
MSCI EAFE	31.8%	7.8%	-12.1%	17.3%	22.8%	-4.9%	-0.8%	-3.0%	-1.5%	6.4%	-2.0%	-2.0%	-2.3%

Source: Bloomberg, Barclays, Alerian, Nareit, MSCI, JP Morgan, Credit Suisse

Market Environment

Equities confounded expectations, touching record highs in November, even as an unexpected outcome to the US presidential election heightened global uncertainties. The S&P 500 Index returned 3.7% last month, surpassing the 2200 price level for the first time on November 22; the Russell 2000 Index gained 5.9%, driven by a surge in value stocks. This rally was driven, in part, by expectations of US corporate tax cuts and financial deregulation in 2017, as indicated by Donald Trump during his presidential campaign. Outside the US, stocks fared worse with the MSCI EAFE Index losing 2.0% and the MSCI EM Index falling 4.6%. The declines were partially attributed to the depreciating yen and the euro, which fell relative to the US dollar along with most major emerging market currencies; the Mexican peso suffered a particularly sharp decline, at 8.4% versus the dollar, amid increased uncertainty regarding US trade relations.

US fixed-income markets experienced broad losses in November as rising real rates and signs of inflation caused a repricing of debt. Yields on the 10-year Treasury rose 56 basis points for the month to 2.37%, its highest level since July 2015. As a result, the Barclays US Treasury Index fell 2.7% and the Barclays US Aggregate Bond Index declined 2.4%. Long-duration issues were hit the hardest as the Barclays Long Treasury Index dropped 7.4%, bringing its year-to-date return down to 1.9%. Global bond indices were in the red as sovereign yields reacted to the re-pricing of US interest rates. Emerging market bonds also sold off as the JP Morgan GBI-EM Global Diversified Index lost 7.0% with currency weakness contributing to the negative return.

Market Outlook

As US assets have experienced a period of revaluation—with equities surging and bonds selling off—investors are left with a seemingly different landscape from just a month earlier. Despite these recent movements, we stand behind our recommendations as the fundamentals that underlie them endure. Despite positive economic signals at home, we continue to express caution in US equities due to high valuations. We suggest an overweight recommendation for international developed equities—either through a direct or a more globally-oriented mandate—as we believe potential earnings or margin expansion offers greater upside relative to the US. Similarly, we advocate investors stay the course in emerging market equities as valuations appear reasonable and many strained currencies show signs of stabilizing. We also believe emerging-market local debt presents attractive total returns, partly because of the interest rate differential. Even with the uptick in yields, we continue to favor TIPS over core bonds. We think investors should consider allocating part of their traditional bond exposure to TIPS, which offer interest rate and inflation exposure at an attractive entry point. Lastly, we remind investors to adhere to rebalancing principles and policies especially on the heels of rapid market shifts like the one we experienced in November.

Firefighters' Retirement System of Louisiana

Investment Performance Flash Report

November 30, 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
Total Plan Composite	1,402,208,080	100.0	100.0	0.7	5.6	3.3	3.5	1.6	4.2	2.3	5.5	Sep-92
Policy Index				0.0	6.5	2.4	5.3	4.2	--	--	--	Sep-92
Allocation Index				0.3	6.5	2.5	5.2	3.8	--	--	--	Sep-92
Total Equity Composite	791,179,930	58.0	56.4	2.4	7.5	6.9	4.8	3.5	9.2	4.8	7.0	Sep-92
MSCI ACWI				0.8	5.6	4.3	3.7	3.0	8.9	3.6	7.1	Sep-92
Domestic Equity Composite	390,070,308	27.0	27.8	5.5	11.6	7.6	8.4	6.6	11.1	6.8	7.6	Sep-92
Russell 3000				4.5	10.6	6.7	8.3	8.7	14.4	7.0	9.4	Sep-92
Mellon Stock Index Fund	269,594,216		19.2	3.7	9.7	5.7	8.0	9.0	--	--	9.8	Nov-13
S&P 500				3.7	9.8	5.7	8.1	9.1	14.4	6.9	9.9	Nov-13
SMID Cap Composite	120,476,092	8.0	8.6	9.9	16.3	12.3	8.7	0.8	--	--	6.9	Oct-12
Russell 2500				8.5	15.3	10.9	10.7	7.1	14.1	7.5	13.4	Oct-12
Energy Opportunities Fund	25,461,837		1.8	14.4	25.6	11.4	10.9	-8.1	-2.6	--	-0.3	Jul-07
OIH/XLE Blended Energy Benchmark				12.5	25.0	10.9	10.3	-7.0	-0.8	--	-0.5	Jul-07
SMID Cap Composite ex Energy	95,014,255	--	6.8	8.8	14.0	12.5	8.2	4.0	--	--	10.0	Oct-12
Russell 2500				8.5	15.3	10.9	10.7	7.1	14.1	7.5	13.4	Oct-12
Advisory Research SMID	36,923,510		2.6	8.8	14.9	14.3	7.4	1.9	9.5	--	12.9	Jun-09
Russell 2500 Value				9.6	21.7	12.9	16.2	8.1	14.7	6.8	16.1	Jun-09
Rothschild U.S. SMID Core	58,090,745		4.1	8.7	13.4	11.4	8.7	--	--	--	3.3	Jul-15
Russell 2500				8.5	15.3	10.9	10.7	7.1	14.1	7.5	4.8	Jul-15
International Equity Composite	207,150,634	16.0	14.8	-1.5	1.3	5.4	-0.6	-1.4	--	--	4.0	Oct-12
MSCI ACWI ex USA				-2.3	1.9	2.9	0.0	-2.3	4.2	1.0	2.9	Oct-12
LSV International Equity Value	104,453,418		7.4	-0.7	4.9	8.0	2.8	-0.9	5.8	0.9	5.1	Oct-04
MSCI Custom Benchmark				-2.3	1.9	2.9	0.0	-2.3	4.2	0.2	4.1	Oct-04
Fisher All Foreign Equity	102,697,216		7.3	-2.3	-2.0	3.0	-3.8	-1.8	4.5	2.7	5.8	Oct-04
MSCI ACWI ex USA				-2.3	1.9	2.9	0.0	-2.3	4.2	1.0	5.1	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.

Firefighters' Retirement System of Louisiana

Investment Performance Flash Report

November 30, 2016

	Market Value (\$)	Policy %	% of Portfolio	1 Mo (%)	YTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Return (%)	Since
Global Equity Composite	136,525,017	10.0	9.7	3.3	4.1	8.8	1.7	4.2	--	--	10.1	Oct-12
MSCI ACWI				0.8	5.6	4.3	3.7	3.0	8.9	3.6	7.6	Oct-12
Thornburg Global Opportunities	67,734,878		4.8	2.2	1.3	9.9	0.4	8.1	14.4	8.1	10.8	Oct-04
MSCI ACWI				0.8	5.6	4.3	3.7	3.0	8.9	3.6	6.2	Oct-04
Boston Partners Global Equity	68,782,036		4.9	4.4	--	--	--	--	--	--	4.4	Nov-16
MSCI ACWI				0.8	5.6	4.3	3.7	3.0	8.9	3.6	0.8	Nov-16
Emerging Markets Equity	57,433,971	5.0	4.1	-4.7	10.4	4.8	7.8	-3.5	--	--	-2.8	Oct-13
MSCI Emerging Markets				-4.6	10.9	4.3	8.5	-3.1	1.0	2.3	-1.9	Oct-13
Acadian Emerging Markets Equity	36,859,820		2.6	-4.5	12.0	5.5	9.2	-2.9	--	--	-2.9	Dec-13
MSCI Emerging Markets				-4.6	10.9	4.3	8.5	-3.1	1.0	2.3	-3.1	Dec-13
OFI Emerging Markets	20,574,151		1.5	-5.0	7.6	3.6	5.3	--	--	--	-4.0	Jan-14
MSCI Emerging Markets				-4.6	10.9	4.3	8.5	-3.1	1.0	2.3	-2.7	Jan-14
Total Fixed Income Composite	299,229,578	24.0	21.3	-2.9	3.1	-2.4	2.1	-0.1	--	--	-0.1	Oct-12
Total Fixed Income Custom Benchmark				-3.1	3.4	-3.1	2.5	0.7	1.0	3.6	0.0	Oct-12
Core Fixed Income	250,991,399	20.0	17.9	-2.0	2.5	-1.7	1.8	1.4	2.7	--	2.5	Dec-10
BBgBarc US Aggregate TR				-2.4	2.5	-2.7	2.2	2.8	2.4	4.3	2.9	Dec-10
Orleans Core Fixed Income	65,384,916		4.7	-2.3	3.8	-2.2	3.2	2.7	2.6	4.6	5.8	Aug-92
BBgBarc US Aggregate TR				-2.4	2.5	-2.7	2.2	2.8	2.4	4.3	5.6	Aug-92
Blackrock US Debt	135,679,699		9.7	-2.4	2.5	-2.7	2.2	--	--	--	1.9	Nov-14
BBgBarc US Aggregate TR				-2.4	2.5	-2.7	2.2	2.8	2.4	4.3	1.9	Nov-14
Standish	49,926,784		3.6	-0.4	0.6	1.7	-1.3	--	--	--	-0.4	Oct-15
3-Month LIBOR + 4%				0.4	4.3	2.0	4.7	4.4	4.4	5.3	4.7	Oct-15
Emerging Markets Debt	48,238,179	4.0	3.4	-7.4	6.9	-5.9	3.9	-6.4	--	--	-7.6	Nov-13
JP Morgan GBI EM Global Diversified TR USD				-7.0	7.9	-5.3	5.5	-4.9	-1.9	3.8	-5.9	Nov-13
Stone Harbor	48,238,179		3.4	-7.4	6.9	-5.9	3.9	-6.4	--	--	-7.6	Nov-13
JP Morgan GBI EM Global Diversified TR USD				-7.0	7.9	-5.3	5.5	-4.9	-1.9	3.8	-5.9	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 \$8,102.31 in terminated manager account.

Mellon Global Equity was liquidated 10/28/2016. Liquidation settled on 11/01/2016.

Boston Partners Global Equity was funded 11/02/2016.

Firefighters' Retirement System of Louisiana

Investment Performance Flash Report

November 30, 2016

	Market Value (\$)	Policy %	% of Portfolio	1 Mo (%)	YTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Return (%)	Since
GAA Composite	138,526,385	10.0	9.9	-0.5	5.5	0.7	3.3	--	--	--	0.9	Apr-14
60% MSCI World (Net) / 40% CITI WGBI				-1.0	4.1	-0.6	3.4	2.0	5.7	3.8	1.2	Apr-14
Blackrock Global Allocation	71,516,671		5.1	0.0	3.6	3.0	2.6	--	--	--	1.7	Apr-14
60% MSCI World (Net) / 40% CITI WGBI				-1.0	4.1	-0.6	3.4	2.0	5.7	3.8	1.2	Apr-14
AQR Global Risk Premium – EL	40,090,049		2.9	-1.6	8.0	-3.0	4.4	--	--	--	0.0	May-14
60% MSCI World (Net) / 40% CITI WGBI				-1.0	4.1	-0.6	3.4	2.0	5.7	3.8	0.8	May-14
Putnam Risk Parity	26,919,665		1.9	-0.4	6.9	0.5	3.6	--	--	--	-1.2	Jul-14
60% MSCI World (Net) / 40% CITI WGBI				-1.0	4.1	-0.6	3.4	2.0	5.7	3.8	-0.2	Jul-14
Total Alternative Composite	161,742,416	8.0	11.5	0.0	1.8	0.0	0.9	-3.7	-1.7	0.2	1.1	Jun-05
Private Equity Composite	47,352,732	4.0	3.4	0.0	2.8	0.0	3.6	-11.7	-4.0	-0.1	-4.8	Jul-05
Cambridge Associates US All PE				0.0	4.2	0.0	4.7	9.4	12.3	10.4	11.8	Jul-05
Murphree Venture (\$2,000,000)	717,528		0.1	0.0	-54.7	0.0	-52.6	-22.7	-12.8	-7.5	-7.1	Sep-05
Louisiana Fund I (\$1,000,000)	1,976,804		0.1	0.0	-5.3	0.0	-5.3	-1.3	1.4	0.0	-6.4	Jul-05
DTC Private Equity II-Q, L.P. (\$7,500,000)	2,404,493		0.2	0.0	-3.3	0.0	-2.4	6.4	9.0	5.5	4.9	Feb-06
Greenspring Associates (\$9,230,000)	4,643,275		0.3	0.0	-10.0	0.0	-10.0	14.3	16.9	9.8	6.2	Feb-06
DCM Private Equity II (\$7,500,000)	2,796,327		0.2	0.0	-7.5	0.0	-4.9	-4.8	0.2	-0.8	-1.7	Feb-06
FECF II (\$20,000,000)	865,315		0.1	0.0	-21.9	0.0	-28.0	16.3	11.5	--	8.0	Mar-08
FECF III (\$20,000,000)	2,998,472		0.2	0.0	7.1	0.0	8.1	33.0	27.4	--	18.2	Jul-09
GA Crossover Fund (\$25,000,000)	11,167,932		0.8	0.0	18.1	0.0	25.1	22.8	25.5	--	16.1	Jan-08
CCMP Capital Investors III (\$15,000,000)	9,642,433		0.7	0.0	17.1	0.0	16.8	--	--	--	12.4	Oct-14
Landmark Equity Partners XV (\$25,000,000)	7,040,153		0.5	0.0	2.6	0.0	-1.9	--	--	--	14.1	Dec-14
Harbourvest IV (\$20,000,000)	3,100,000		0.2	0.0	--	--	--	--	--	--	0.0	Nov-16

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

Fiscal YTD ends June 30th.

Harbourvest IV was funded 10/01/2016.

Private Equity valuations are as of 06/30/2016 adjusted for cash flows.



NEPC, LLC

November 30, 2016

Firefighters' Retirement System of Louisiana

Investment Performance Flash Report

November 30, 2016

	Market Value (\$)	Policy %	% of Portfolio	1 Mo (%)	YTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Return (%)	Since
Real Estate Composite	114,389,684	4.0	8.2	0.0	1.5	0.0	-0.2	4.5	5.1	--	4.5	Dec-09
<i>NCREIF Property Index</i>				0.0	6.1	1.8	9.2	11.3	11.2	7.2	11.1	Dec-09
Americus Fund II (\$13,168,000)	542,781		0.0	0.0	-25.1	0.0	-52.9	-21.2	-10.3	-0.6	0.4	Dec-05
Sentinel Real Estate Fund (\$30,000,000)	34,904,270		2.5	0.0	3.8	0.0	8.3	10.8	15.9	5.8	6.1	Feb-06
JP Morgan India (\$8,990,000)	4,471,910		0.3	0.0	-3.0	0.0	-3.3	-0.4	-2.4	--	-12.8	Apr-07
Timbervest Crossover Fund (\$16,000,000)	10,190,135		0.7	0.0	0.4	0.0	-4.8	-2.3	-0.6	--	-0.3	Apr-08
AEW Partners VI LP (\$20,000,000)	12,151,343		0.9	0.0	1.8	0.0	12.6	16.7	17.5	--	12.7	Mar-10
AEW Core Property (\$12,000,000)	13,634,845		1.0	0.0	4.1	0.0	7.4	--	--	--	8.4	May-15
FRS-GA (Georgia)	4,762,850		0.3	0.0	0.2	0.0	0.2	-4.4	-2.7	--	-8.0	Jun-08
FRS-LB I (NLTP AZ)	4,463,550		0.3	0.0	-0.4	0.0	-0.4	1.3	-26.8	--	-18.7	Jun-07
FRS-LB III (ST George UT)	4,594,816		0.3	0.0	-12.9	0.0	-12.9	-4.5	-3.7	--	-0.1	Jun-08
ASB Real Estate Fund	12,199,135		0.9	0.0	2.4	0.0	--	--	--	--	2.4	Jan-16
Heitman America Real Estate Trust	12,474,049		0.9	0.0	3.4	0.0	7.1	--	--	--	6.5	Nov-15
Total Cash (\$9 MM)	11,529,771	--	0.8	0.0	0.3	0.2	0.3	0.1	0.1	1.0	2.9	Jun-92
<i>91 Day T-Bills</i>				0.0	0.3	0.1	0.3	0.1	0.1	0.7	2.5	Jun-92

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Fiscal YTD ends June 30th.

Real Estate valuations are as of 06/30/2016 adjusted for cash flows.

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



NEPC, LLC

November 30, 2016

Firefighters' Retirement System of Louisiana

Current Monthly Breakdown of Change in Value

November 30, 2016

Total Cash Flow Summary

Month Ending November 30, 2016

	Beginning Market Value	Withdrawals	Contributions	Net Cash Flow	Fees	Net Investment Change	Ending Market Value
Acadian Emerging Markets Equity	\$38,587,081	\$0	\$0	\$0	\$0	-\$1,727,261	\$36,859,820
Advisory Research SMID	\$33,934,071	\$0	\$0	\$0	\$0	\$2,989,439	\$36,923,510
AEW Core Property (\$12,000,000)	\$13,634,845	\$0	\$0	\$0	\$0	\$0	\$13,634,845
AEW Partners VI LP (\$20,000,000)	\$12,151,343	\$0	\$0	\$0	\$0	\$0	\$12,151,343
Americus Fund II (\$13,168,000)	\$542,781	\$0	\$0	\$0	\$0	\$0	\$542,781
AQR Global Risk Premium – EL	\$40,744,402	\$0	\$0	\$0	-\$31,738	-\$654,353	\$40,090,049
ASB Real Estate Fund	\$12,199,135	-\$34,085	\$34,085	\$0	\$0	\$0	\$12,199,135
Blackrock Global Allocation	\$71,376,777	\$0	\$117,744	\$117,744	-\$117,744	\$22,150	\$71,516,671
Blackrock US Debt	\$142,553,927	-\$3,500,000	\$14,532	-\$3,485,468	-\$14,532	-\$3,388,760	\$135,679,699
Boston Partners Global Equity	\$0	\$0	\$66,000,000	\$66,000,000	\$0	\$2,782,036	\$68,782,036
Cash/Clearing Account	\$4,093,410	-\$70,984,550	\$74,031,075	\$3,046,525	\$0	\$1,471	\$7,141,406
CCMP Capital Investors III (\$15,000,000)	\$9,642,433	\$0	\$0	\$0	\$0	\$0	\$9,642,433
DCM Private Equity II (\$7,500,000)	\$2,796,327	\$0	\$0	\$0	\$0	\$0	\$2,796,327
DTC Private Equity II-Q, L.P. (\$7,500,000)	\$2,704,493	-\$300,000	\$0	-\$300,000	\$0	\$0	\$2,404,493
Energy Opportunities Fund	\$22,258,157	\$0	\$0	\$0	-\$59,462	\$3,203,681	\$25,461,837
FECP II (\$20,000,000)	\$1,081,588	-\$216,273	\$0	-\$216,273	\$0	\$0	\$865,315
FECP III (\$20,000,000)	\$2,998,472	\$0	\$0	\$0	\$0	\$0	\$2,998,472
Fisher All Foreign Equity	\$105,079,622	\$0	\$0	\$0	\$0	-\$2,382,406	\$102,697,216
FRS-GA (Georgia)	\$4,762,850	\$0	\$0	\$0	\$0	\$0	\$4,762,850
FRS-LB I (NLTP AZ)	\$4,463,550	\$0	\$0	\$0	\$0	\$0	\$4,463,550
FRS-LB III (ST George UT)	\$4,594,816	\$0	\$0	\$0	\$0	\$0	\$4,594,816
GA Crossover Fund (\$25,000,000)	\$11,167,932	\$0	\$0	\$0	\$0	\$0	\$11,167,932
Greenspring Associates (\$9,230,000)	\$4,803,179	-\$159,904	\$0	-\$159,904	\$0	\$0	\$4,643,275
Harbourvest IV (\$20,000,000)	\$1,000,000	\$0	\$2,100,000	\$2,100,000	\$0	\$0	\$3,100,000
Heitman America Real Estate Trust	\$12,474,049	\$0	\$0	\$0	\$0	\$0	\$12,474,049

Firefighters' Retirement System of Louisiana

Current Monthly Breakdown of Change in Value

November 30, 2016

	Month Ending November 30, 2016						
	Beginning Market Value	Withdrawals	Contributions	Net Cash Flow	Fees	Net Investment Change	Ending Market Value
JP Morgan India (\$8,990,000)	\$4,471,910	\$0	\$0	\$0	\$0	\$0	\$4,471,910
Landmark Equity Partners XV (\$25,000,000)	\$6,699,540	-\$167,935	\$508,548	\$340,613	\$0	\$0	\$7,040,153
Liquidating - BlackRock Global Focused	\$8,966	-\$463	\$0	-\$463	\$0	-\$400	\$8,102
Louisiana Asset Management Pool	\$4,386,295	\$0	\$0	\$0	\$0	\$2,071	\$4,388,366
Louisiana Fund I (\$1,000,000)	\$1,976,804	\$0	\$0	\$0	\$0	\$0	\$1,976,804
LSV International Equity Value	\$105,227,637	\$0	\$0	\$0	\$0	-\$774,220	\$104,453,418
Mellon Stock Index Fund	\$263,399,610	-\$3,500,000	\$18,515	-\$3,481,485	-\$18,515	\$9,676,091	\$269,594,216
Murphree Venture (\$2,000,000)	\$717,528	\$0	\$0	\$0	\$0	\$0	\$717,528
OFI Emerging Markets	\$21,658,007	\$0	\$0	\$0	-\$14,745	-\$1,083,857	\$20,574,151
Orleans Core Fixed Income	\$66,949,702	\$0	\$0	\$0	\$0	-\$1,564,785	\$65,384,916
Putnam Risk Parity	\$27,022,314	\$0	\$0	\$0	-\$16,152	-\$102,649	\$26,919,665
Rothschild U.S. SMID Core	\$53,425,230	\$0	\$0	\$0	\$0	\$4,665,515	\$58,090,745
Sentinel Real Estate Fund (\$30,000,000)	\$34,904,270	\$0	\$0	\$0	\$0	\$0	\$34,904,270
Standish	\$50,129,150	\$0	\$0	\$0	\$0	-\$202,365	\$49,926,784
Stone Harbor	\$52,092,260	\$0	\$0	\$0	-\$34,169	-\$3,854,081	\$48,238,179
Thornburg Global Opportunities	\$66,259,398	\$0	\$0	\$0	-\$88,623	\$1,475,480	\$67,734,878
Timbervest Crossover Fund (\$16,000,000)	\$10,190,135	\$0	\$0	\$0	\$0	\$0	\$10,190,135
Total	\$1,329,163,996	-\$78,863,210	\$142,824,499	\$63,961,288	-\$395,678	\$9,082,796	\$1,402,208,080

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

November 30, 2016

Total Cash Flow Summary

Fiscal YTD Ending November 30, 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	-\$133,827	\$1,915,303	\$36,859,820
Advisory Research SMID	\$32,306,260	\$0	\$0	\$0	-\$53,504	\$4,617,250	\$36,923,510
AEW Core Property (\$12,000,000)	\$13,634,845	\$0	\$0	\$0	\$0	\$0	\$13,634,845
AEW Partners VI LP (\$20,000,000)	\$12,151,343	\$0	\$0	\$0	\$0	\$0	\$12,151,343
Americus Fund II (\$13,168,000)	\$582,381	-\$39,600	\$0	-\$39,600	\$0	\$0	\$542,781
AQR Global Risk Premium – EL	\$41,311,508	\$0	\$0	\$0	-\$160,280	-\$1,221,460	\$40,090,049
ASB Real Estate Fund	\$12,168,888	-\$34,085	\$64,332	\$30,247	\$0	\$0	\$12,199,135
Blackrock Global Allocation	\$69,213,303	\$0	\$231,737	\$231,737	-\$231,737	\$2,071,631	\$71,516,671
Blackrock US Debt	\$147,959,644	-\$8,500,000	\$29,248	-\$8,470,752	-\$29,248	-\$3,809,193	\$135,679,699
Boston Partners Global Equity	--	\$0	\$66,000,000	\$66,000,000	\$0	\$2,782,036	\$68,782,036
Cash/Clearing Account	\$4,966,116	-\$82,173,912	\$84,341,718	\$2,167,806	\$0	\$7,483	\$7,141,406
CCMP Capital Investors III (\$15,000,000)	\$8,812,564	\$0	\$829,869	\$829,869	\$0	\$0	\$9,642,433
DCM Private Equity II (\$7,500,000)	\$2,933,335	-\$137,008	\$0	-\$137,008	\$0	\$0	\$2,796,327
DTC Private Equity II-Q, L.P. (\$7,500,000)	\$2,704,493	-\$300,000	\$0	-\$300,000	\$0	\$0	\$2,404,493
Energy Opportunities Fund	\$22,851,429	\$0	\$0	\$0	-\$116,590	\$2,610,408	\$25,461,837
FECP II (\$20,000,000)	\$1,117,338	-\$252,023	\$0	-\$252,023	\$0	\$0	\$865,315
FECP III (\$20,000,000)	\$3,122,710	-\$124,238	\$0	-\$124,238	\$0	\$0	\$2,998,472
Fisher All Foreign Equity	\$99,751,388	\$0	\$0	\$0	-\$276,688	\$2,945,828	\$102,697,216
FRS-GA (Georgia)	\$4,762,850	\$0	\$0	\$0	\$0	\$0	\$4,762,850
FRS-LB I (NLTP AZ)	\$4,463,550	\$0	\$0	\$0	\$0	\$0	\$4,463,550
FRS-LB III (ST George UT)	\$4,594,816	\$0	\$0	\$0	\$0	\$0	\$4,594,816
GA Crossover Fund (\$25,000,000)	\$11,666,189	-\$498,257	\$0	-\$498,257	\$0	\$0	\$11,167,932
Greenspring Associates (\$9,230,000)	\$5,398,918	-\$755,643	\$0	-\$755,643	\$0	\$0	\$4,643,275
Harbourvest IV (\$20,000,000)	--	\$0	\$3,100,000	\$3,100,000	\$0	\$0	\$3,100,000
Heitman America Real Estate Trust	\$12,474,049	\$0	\$0	\$0	\$0	\$0	\$12,474,049



Firefighters' Retirement System of Louisiana

Current Fiscal YTD Breakdown of Change in Value

November 30, 2016

	Fiscal YTD Ending November 30, 2016						
	Beginning Market Value	Withdrawals	Contributions	Net Cash Flow	Fees	Net Investment Change	Ending Market Value
JP Morgan India (\$8,990,000)	\$4,471,910	\$0	\$0	\$0	\$0	\$0	\$4,471,910
Landmark Equity Partners XV (\$25,000,000)	\$7,246,880	-\$906,881	\$700,154	-\$206,727	\$0	\$0	\$7,040,153
Liquidating - BlackRock Global Focused	\$38,504	-\$30,796	\$926	-\$29,869	\$0	-\$532	\$8,102
Louisiana Asset Management Pool	\$4,379,144	\$0	\$0	\$0	\$0	\$9,222	\$4,388,366
Louisiana Fund I (\$1,000,000)	\$1,976,804	\$0	\$0	\$0	\$0	\$0	\$1,976,804
LSV International Equity Value	\$96,703,747	\$0	\$0	\$0	-\$43,025	\$7,749,670	\$104,453,418
Mellon Stock Index Fund	\$258,331,649	-\$3,500,000	\$18,515	-\$3,481,485	-\$37,538	\$14,744,053	\$269,594,216
Murphree Venture (\$2,000,000)	\$717,528	\$0	\$0	\$0	\$0	\$0	\$717,528
OFI Emerging Markets	\$19,860,080	\$0	\$0	\$0	-\$75,593	\$714,070	\$20,574,151
Orleans Core Fixed Income	\$66,864,691	\$0	\$0	\$0	-\$47,458	-\$1,479,774	\$65,384,916
Putnam Risk Parity	\$26,791,354	\$0	\$0	\$0	-\$32,365	\$128,311	\$26,919,665
Rothschild U.S. SMID Core	\$52,150,941	\$0	\$0	\$0	-\$88,879	\$5,939,804	\$58,090,745
Sentinel Real Estate Fund (\$30,000,000)	\$35,289,933	-\$385,663	\$0	-\$385,663	\$0	\$0	\$34,904,270
Standish	\$49,048,765	\$0	\$62,104	\$62,104	-\$62,104	\$815,915	\$49,926,784
Stone Harbor	\$51,284,146	\$0	\$0	\$0	-\$181,323	-\$3,045,967	\$48,238,179
Thornburg Global Opportunities	\$61,655,743	\$0	\$0	\$0	-\$171,965	\$6,079,135	\$67,734,878
Timbervest Crossover Fund (\$16,000,000)	\$10,574,135	-\$384,000	\$0	-\$384,000	\$0	\$0	\$10,190,135
Z Terminated Mellon Global Equity	\$63,767,414	-\$66,186,500	\$5,854	-\$66,180,646	-\$5,854	\$2,413,232	--
Total	\$1,365,045,805	-\$164,208,606	\$155,384,457	-\$8,824,149	-\$1,747,978	\$45,986,424	\$1,402,208,080

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 November 30, 2016					Ending Market Value
	Beginning Market Value	Withdrawals	Contributions	Net Cash Flow	Net Investment Change	
Acadian Emerging Markets Equity	--	\$0	\$40,000,000	\$40,000,000	-\$3,140,180	\$36,859,820
Advisory Research SMID	--	-\$42,800,000	\$34,937,469	-\$7,862,531	\$44,786,041	\$36,923,510
AEW Core Property (\$12,000,000)	--	\$0	\$12,000,000	\$12,000,000	\$1,634,845	\$13,634,845
AEW Partners VI LP (\$20,000,000)	--	-\$16,539,762	\$18,420,450	\$1,880,688	\$10,270,655	\$12,151,343
Americus Fund II (\$13,168,000)	--	-\$15,693,930	\$12,044,774	-\$3,649,156	\$4,191,937	\$542,781
AQR Global Risk Premium – EL	--	\$0	\$40,100,000	\$40,100,000	-\$9,951	\$40,090,049
ASB Real Estate Fund	--	-\$34,085	\$12,069,665	\$12,035,580	\$163,556	\$12,199,135
Blackrock Global Allocation	--	\$0	\$67,545,078	\$67,545,078	\$3,971,593	\$71,516,671
Blackrock US Debt	--	-\$58,500,000	\$188,553,225	\$130,053,225	\$5,626,474	\$135,679,699
Boston Partners Global Equity	--	\$0	\$66,000,000	\$66,000,000	\$2,782,036	\$68,782,036
Cash/Clearing Account	--	-\$1,956,062,652	\$1,960,081,630	\$4,018,978	\$3,122,428	\$7,141,406
CCMP Capital Investors III (\$15,000,000)	--	-\$129,294	\$8,179,681	\$8,050,387	\$1,592,046	\$9,642,433
Commonwealth	--	-\$9,671,012	\$30,000,000	\$20,328,988	-\$20,328,988	--
DCM Private Equity II (\$7,500,000)	--	-\$5,826,980	\$8,340,318	\$2,513,338	\$282,989	\$2,796,327
DTC Private Equity II-Q, L.P. (\$7,500,000)	--	-\$6,637,500	\$5,476,825	-\$1,160,675	\$3,565,168	\$2,404,493
Energy Opportunities Fund	--	-\$28,002,876	\$50,000,000	\$21,997,124	\$3,464,713	\$25,461,837
FECF II (\$20,000,000)	--	-\$21,752,423	\$19,188,998	-\$2,563,425	\$3,428,740	\$865,315
FECF III (\$20,000,000)	--	-\$28,380,311	\$19,206,359	-\$9,173,952	\$12,172,424	\$2,998,472
Fisher All Foreign Equity	--	-\$55,165,618	\$117,000,000	\$61,834,383	\$40,862,834	\$102,697,216
FRS-GA (Georgia)	--	\$0	\$9,416,075	\$9,416,075	-\$4,653,225	\$4,762,850
FRS-LB I (NLTP AZ)	--	\$0	\$24,900,208	\$24,900,208	-\$20,436,658	\$4,463,550
FRS-LB III (ST George UT)	--	\$0	\$4,646,040	\$4,646,040	-\$51,224	\$4,594,816
GA Crossover Fund (\$25,000,000)	--	-\$38,251,478	\$25,000,000	-\$13,251,478	\$24,419,410	\$11,167,932
Greenspring Associates (\$9,230,000)	--	-\$11,070,080	\$8,491,600	-\$2,578,480	\$7,221,755	\$4,643,275
Harbourvest IV (\$20,000,000)	--	\$0	\$3,100,000	\$3,100,000	\$0	\$3,100,000

Cash flow statistics exclude management fees and expenses.

Firefighters' Retirement System of Louisiana

Since Inception Breakdown of Change in Value

	Beginning Market Value	Ending November 30, 2016			Net Investment Change	Ending Market Value
		Withdrawals	Contributions	Net Cash Flow		
Heitman America Real Estate Trust	--	\$0	\$12,000,000	\$12,000,000	\$474,049	\$12,474,049
JP Morgan India (\$8,990,000)	--	-\$2,256,002	\$8,307,355	\$6,051,353	-\$1,579,442	\$4,471,910
Landmark Equity Partners XV (\$25,000,000)	--	-\$4,639,694	\$10,258,483	\$5,618,789	\$1,421,364	\$7,040,153
Liquidating - BlackRock Global Focused	--	-\$59,568,544	\$46,832,890	-\$12,735,654	\$12,743,756	\$8,102
Louisiana Asset Management Pool	--	-\$944,296,689	\$943,990,965	-\$305,724	\$4,694,090	\$4,388,366
Louisiana Fund I (\$1,000,000)	--	\$0	\$1,010,000	\$1,010,000	\$966,804	\$1,976,804
LSV International Equity Value	--	-\$17,281,912	\$103,500,000	\$86,218,088	\$18,235,329	\$104,453,418
Mellon Stock Index Fund	--	-\$83,500,001	\$275,292,760	\$191,792,760	\$77,801,457	\$269,594,216
Murphree Venture (\$2,000,000)	--	-\$848,459	\$2,058,578	\$1,210,119	-\$492,591	\$717,528
OFI Emerging Markets	--	-\$8,500,000	\$31,500,000	\$23,000,000	-\$2,425,849	\$20,574,151
Orleans Core Fixed Income	\$0	-\$91,022,995	\$126,099,081	\$35,076,086	\$30,308,830	\$65,384,916
Putnam Risk Parity	--	\$0	\$27,400,000	\$27,400,000	-\$480,335	\$26,919,665
Rothschild U.S. SMID Core	--	\$0	\$55,500,000	\$55,500,000	\$2,590,745	\$58,090,745
Sentinel Real Estate Fund (\$30,000,000)	--	-\$13,227,081	\$30,000,000	\$16,772,919	\$18,131,350	\$34,904,270
Standish	--	\$0	\$50,183,006	\$50,183,006	-\$256,222	\$49,926,784
Stone Harbor	--	\$0	\$63,000,000	\$63,000,000	-\$14,761,821	\$48,238,179
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	\$75,597,188	\$67,734,878
Timbervest Crossover Fund (\$16,000,000)	--	-\$5,952,000	\$13,600,000	\$7,648,000	\$2,542,135	\$10,190,135

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.
- This report may contain confidential or proprietary information and may not be copied or redistributed to any party not legally entitled to receive it.

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.

