



Response to
Senate Resolution No.175
(2005 Regular Session)

For the Period October 1 to December 31, 2018

Pursuant to SR 175 of the 2005 Regular Louisiana Legislative Session, each retirement system is to provide a quarterly report of their investments commencing with the quarter beginning July 1, 2005. The following is the quarterly report for LASERS portfolio for the period October 1 to December 31, 2018. The report provides a listing of LASERS investments by asset class, amount of funds invested and with whom, annual returns on the investments and the management fees.

While market returns provide a snapshot view of investment performance, readers should keep in mind that actuarial returns, which are smoothed over five years to offset market volatility, are a better indicator of the system's ability to consistently achieve the assumed annual actuarial return of 7.65%. The Board adopted a plan to reduce the discount rate to 7.5% in 0.05% increments beginning July 1, 2017.

Therefore, in addition to the data presented in the quarterly SR 175 - Senate Resolution No. 175 Report, the following information is given to further illustrate the System's status.

As of June 30, 2018, LASERS 30-year actuarial return was 7.95%.

4th Quarter 2018

Manager	Net Asset Value \$ (Millions)	Annual Return	Annual Basis Points	Management Fees	
				Quarterly Dollar Amount	
U.S. EQUITY					
LARGE CAP VALUE					
Aronson Johnson & Ortiz ¹	214.2	-11.7	0.0	-	
SMALL CAP GROWTH					
Rice Hall James ¹	192.0	-10.4	0.0	-	
SMALL CAP VALUE					
LSV Asset Management	193.9	-17.0	56.4	289,656	
INDEX FUNDS					
LASERS S&P 400 Index Fund	404.2	-11.1	n/a	-	
LASERS S&P 500 Index Fund	1116.4	-4.3	n/a	-	
LASERS S&P 600 Index Fund	256.0	-8.4	n/a	-	
NON-U.S. EQUITY					
LARGE CAP VALUE					
Mondrian Investment Partners	220.4	-11.0	28.4	155,206	
LARGE CAP CORE					
LASERS MSCI World Ex-USA Index Fund	1322.4	-13.6	n/a	-	
LASERS Terror-Free International Fund	25.3	-12.6	n/a	-	
INT'L SMALL CAP					
Mondrian Investment Partners	207.3	-13.7	71.0	368,270	
Goldman Sachs	344.9	-17.9	51.1	447,644	
EMERGING MARKETS					
City of London Investment Management	389.2	-13.5	93.0	848,208	
LSV Emerging Markets	336.3	-13.3	85.0	744,554	
Westwood Global Emerging Markets	277.0	-9.2	89.0	620,471	
LSV Custom Emerging Markets	387.2	-10.6	50.0	452,377	
TOTAL EQUITY	\$5,886.5			3,926,387	
US FIXED INCOME					
INVESTMENT GRADE					
Loomis Sayles & Co.	196.8	-0.2	17.5	92,929	
Orleans Capital Mgt	154.8	-1.0	11.8	43,421	
HIGH YIELD					
JP Morgan	163.4	-2.3	27.0	123,744	
Nomura	161.0	-2.7	45.0	198,987	
EMERGING MARKET DEBT					
Stone Harbor	189.1	-9.4	52.5	339,133	
Gramercy ⁴	63.8	n/a	100.0	-	
Global Multi-Sector					
Doubleline	233.1	1.4	60.0	337,285	
Goldentree	230.3	1.4	75.0	397,897	
Pimco ²	110.8	n/a	95.0	-	
TOTAL FIXED INCOME³	\$1,513.6			1,533,395	

4th Quarter 2018

Manager	Net Asset Value		Management Fees	
	\$ (Millions)	Annual Return	Annual Basis Points	Quarterly Dollar Amount
ALTERNATIVE ASSETS				
PRIVATE MARKETS				
Adams Street 2005 Non-US	3.4	6.5	37.3	10,477
Adams Street Partnership 2002 US ⁴	1.5	9.0	0.0	-
Adams Street Partnership 2005 US	8.5	13.4	37.3	24,444
Adams Street 2007 US Fund	13.8	14.8	55.0	28,646
Adams Street 2007 Non-US	9.4	18.8	55.0	18,229
Adams Street 2007 Direct	3.5	52.2	100.0	7,331
Adams Street 2009 US Fund	20.9	19.0	67.0	36,458
Adams Street 2009 Non-US Developed	10.3	18.9	67.0	21,875
Adams Street 2009 Non-US Emerging	5.5	9.0	67.0	7,292
Adams Street 2009 Direct	3.7	36.4	140.0	14,881
AEA Investors Fund VI	37.1	10.2	175.0	(101,530)
BCP Energy Services Fund A	46.4	31.1	200.0	226,625
Brinson ^{4,5}	4.1	14.6	0.0	-
Brookfield Capital IV	48.4	107.1	175.0	227,967
Adams Street V ⁴	4.1	6.9	0.0	-
Apollo Inv Fund VII	12.6	3.3	0.0	32,173
Apollo Inv Fund VIII	64.8	10.6	150.0	32,440
Apollo European Fund II	35.1	4.0	175.0	84,159
ArcLight Energy Ptr Fund VI	67.7	30.2	150.0	219,120
CCMP Capital III	59.2	18.0	150.0	221,582
Cerberus VI	115.3	-12.8	150.0	453,133
Coller International Partners VI	34.7	23.9	125.0	226,230
Coller International Partners VII	52.1	18.9	150.0	284,333
Double Line Mortgage ⁶	76.3	n/a	100.0	390,625
Drug Royalty Fund III ⁷	11.7	n/a	150.0	(1)
EIG Energy Fund XIV ⁸	7.2	36.2	125.0	46,581
EIG Energy Fund XV ⁸	20.6	3.5	125.0	59,948
EIG Energy Fund XVI ⁸	50.2	16.7	125.0	136,418
Energy Spectrum Fund V ⁸	0.4	-40.0	175.0	7,893
Energy Spectrum Fund VI ⁸	9.4	102.9	175.0	69,893
GTCR Fund XI	37.7	37.0	150.0	99,850
GTCR Fund XII ⁹	5.5	n/a	150.0	222,827
Louisiana Growth Fund	1.2	30.5	50.0	53,968
Louisiana Growth Fund II	11.1	83.3	50.0	76,742
Gamut Fund I	12.1	1.7	200.0	127,119
Goldman Sachs PEP IX	25.5	23.1	25.3	32,962
Golden Tree Distressed Fund III ⁴	8.6	n/a	125.0	14,844
John Hancock ⁴	0.2	-36.5	0.0	-
HIPEP Partnership III ⁴	0.1	-11.2	0.0	-
Harbourvest VI - Buyout ⁴	0.2	-1.3	0.0	-
Harbourvest VI - Direct ⁴	1.5	-16.5	0.0	-
Harbourvest VI - Partnership ⁴	1.6	16.0	0.0	-
HIPEP Direct IV ⁴	0.3	32.5	0.0	-
Huff Alternative Fund ⁴	10.2	-3.1	0.0	-
Insight Venture Partner ¹⁰	20.6	n/a	175.0	231,640
KKR Asian Fund III ¹¹	9.2	n/a	125.0	148,080
Marathon European Credit Opp Fund ⁴	9.1	25.8	0.0	-
Mesirow III	5.2	5.6	49.4	23,015
Mesirow IV	30.5	10.6	45.9	62,001
Mesirow V	49.2	18.2	56.7	76,545
Newstone Mezzanine II	5.2	16.0	150.0	24,751
OHA Strategic Credit Fund II	4.4	41.2	175.0	29,954
Oaktree European Fund III	32.3	11.2	175.0	141,399
Pantheon Europe VI	19.3	18.6	75.0	69,136
Pantheon VI	11.9	8.5	52.7	53,746
Pantheon VII	23.9	15.2	67.5	76,562
Stepstone Fund II	33.1	36.9	37.5	35,894
Stepstone Europe Fund II	17.5	2.7	50.0	17,455
Private Advisors IV	20.6	33.5	75.0	59,063
Private Advisors V	37.3	26.7	90.0	81,000
Private Advisors VI	25.2	15.0	90.0	90,000
Q-BLK II	14.9	5.9	45.9	50,847
Q-BLK III	26.9	12.5	59.7	73,867
Siguler Guff DOF III	35.3	11.3	24.0	97,485
Siguler Guff Fund IV	16.9	5.5	71.0	45,440
Siguler Guff Pelican Gem	49.9	0.5	75.0	97,588
Sterling Partners	19.6	-8.2	200.0	92,232
Vista Equity Partners IV	32.3	20.9	150.0	64,160
Vista Equity Partners V	83.2	69.7	150.0	281,250
Vista Equity Partners VI	90.6	34.8	150.0	354,346
Williams Capital ⁴	1.3	178.3	0.0	-

4th Quarter 2018

Manager	Net Asset Value \$ (Millions)	Annual Return	Annual Basis Points	Management Fees Quarterly Dollar Amount
ABSOLUTE RETURN STRATEGIES				
Bridgewater Pure Alpha	238.6	10.0	181.4	1,065,062
Prisma Capital Partners	250.6	-2.4	65.0	409,314
Entrust Capital Partners	263.1	-3.5	112.6	725,655
RISK PARITY				
Bridgewater Custom ¹²	395.2	-3.5	64.1	646,799
AQR Capital Management	343.3	-13.5	110.0	973,654
TOTAL ALTERNATIVE ASSETS ¹³				
	\$3,180.7			9,613,472
TOTAL PLAN ¹⁴				
	\$10,647.5			15,073,255

¹ The fund's fee structure is performance based.

² The portfolio was funded 11/2018.

³ The total market value for fixed income includes \$10.5 million for Blackstone which was funded at the end of December. It will be listed at a later date.

⁴ The fund no longer charges fees.

⁵ This is a composite of six limited partnerships.

⁶ The portfolio was funded 10/2018.

⁷ LASERS is awaiting final escrow distribution from this fund, so one year return is not listed.

⁸ Annual Basis Points are based on historical cost or net asset value.

⁹ The portfolio was funded 05/2018.

¹⁰ The portfolio was funded 04/2018.

¹¹ The portfolio was funded 02/2018.

¹² Bridgewater Major Market and Bridgewater All Weather were merged to form this new fund 01/2018.

¹³ The net asset values and returns are reflected net of fees for all Alternatives, and includes \$8.6 million for Paamco and \$2.3 million for Stark, which are being liquidated.

¹⁴ The Total Plan Market Value includes \$66.4 million in cash/cash equivalents and \$0.2 million in the Harbor Police transition account.

The Total Quarterly Dollar Amount does not include \$309,161 for Self-Directed Plan and Optional Retirement Plan.

The Total Quarterly Dollar Amount does not include \$26,391 in fee for liquidating funds.

The Total Quarterly Dollar Amount does not include \$1,014,261 in fee accruals for new funds.

The Total Quarterly Dollar Amount includes fee adjustments from prior periods.

Comments

For the majority of LASERS investment managers, management fees are paid quarterly in arrears, based upon the market value of assets under its management, excluding any cash balance, as reported by LASERS custodian bank, and are calculated as follows:

The fee is calculated at the end of each calendar quarter as follows: (Average of market value of assets under management on last business day of each of the four preceding calendar months, which shall not include funds that are managed by LASERS custodian bank) times the annual percentage fee schedule (basis points) divided by four. Fees on invested contributions and withdrawals during each calendar quarter will be computed separately on a pro-rata basis. It is not necessary to pro-rate contributions and withdrawals for Month 1 of the calculation period. Contributions and withdrawals are to be calculated as such:

Contributions: (month end market value for the month in which the contribution was made less any cash balance) minus the amount of the contribution, and then multiplied by the number of days the funds were not in the account, divided by the total number of days for the month.

Withdrawals: (month end market value for the month in which the withdrawal was made less any cash balance) plus the amount of the withdrawal, and then multiplied by the number of days the funds were in the account, divided by the total number of days for the month.

The managers shall provide a monthly reconciliation of their records to LASERS custodian bank. Should the manager fail to reconcile LASERS portfolio on a timely basis, LASERS maintains the right to withhold payment of the management fee until the portfolio has been reconciled to LASERS satisfaction.

Private Equity earns fees as a percentage of LASERS capital commitment to each fund. The fees are deducted from the portfolios on a quarterly basis and verified with the receipt of each manager's annual audited financials. The one exception is for Adams Street Secondary 1998 Fund and Adams Street Primary 1997 and 1999 Funds, for which billing is handled by UBS Global Asset Management. For these funds an invoice is received, verified, and paid on a quarterly basis.

Investment Terminology

Annual Return	Annualized returns express the rate of return over a given time period on an annual basis, or as a return per year. An annualized return can be calculated over any period one year or longer and is useful for comparing two or more portfolios over similar time periods.
Basis Point	One gradation on a 100-point scale which is used in expressing variations on the yield of bonds. A basis point is equal to one-hundredth of a percentage point.
Concentrated Portfolio	A portfolio that generally has fewer securities than traditional portfolios.
Index Fund	A fund (or account) comprised of securities, the characteristics of which will produce a return which will replicate (or substantially replicate) a designated securities index.
Management Fee	The fee charged by the investment manager for supervision of an investment. Generally quoted in terms of a percent of assets.
Market Value	The current or prevailing price of a security or commodity as indicated by current market quotations, and therefore the price at which additional amounts can presumably be purchased or sold.
Universe	The list of all assets eligible for inclusion in a portfolio.

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