

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

For the Period January 1 to March 31, 2020

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 January 1 to March 31, 2020. 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 7.60%. 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, 2019, LASERS 30-year actuarial return was 7.79%.

## 1st Quarter 2020

Manager	Net Asset Value \$ (Millions)	Annual Return	Annual Basis Points	Management Fees Quarterly Dollar Amount
	\$ (MIIIIOIIS)	Annual Keturn	Annual Dasis Points	
J.S. EQUITY ARGE CAP VALUE				
Aronson Johnson & Ortiz <sup>1</sup>	170.8	-17.4	0.0	
SMALL CAP GROWTH				
Rice Hall James <sup>1</sup>	108.7	-26.6	0.0	-
SMALL CAP VALUE LSV Asset Management	122.6	-36.2	56.2	229,892
	122.0	-30.2	50.2	229,092
NDEX FUNDS				
ASERS S&P 400 Index Fund	328.0	-22.4	n/a	-
_ASERS S&P 500 Index Fund _ASERS S&P 600 Index Fund	924.5 150.8	-6.8 -26.0	n/a n/a	-
NON-U.S. EQUITY LARGE CAP VALUE				
Mondrian Investment Partners	186.4	-16.5	29.0	143,842
LARGE CAP CORE				
LASERS MSCI World Ex-USA Index Fund	1065.1	-15.0	n/a	-
LASERS Terror-Free International Fund	24.2	-13.3	n/a	-
NT'L SMALL CAP				
Nondrian Investment Partners	174.0	-17.3	72.2	360,186
Goldman Sachs	256.3	-20.0	52.5	385,300
EMERGING MARKETS				
City of London Investment Management	301.6	-17.0	93.0	925,070
Nestwood Global Emerging Markets	217.6	-22.3	78.1	651,945 720,524
LSV Custom Emerging Markets	507.2	-24.6	50.0	730,534
TOTAL EQUITY	\$4,537.8			3,426,769
INVESTMENT GRADE	177.1	6.6	17.8	85,251
Orleans Capital Mgt	128.7	5.7	12.0	42,500
HIGH YIELD				
JP Morgan	122.7	-8.6	27.0	99,516
Nomura	115.9	-10.4	45.0	175,674
EMERGING MARKET DEBT				
Stone Harbor	179.5	-8.2	52.5	256,259
Gramercy	138.8	-1.1	85.0	317,451
Global Multi-Sector				
Doubleline	193.2	-10.3	60.0	312,067
Goldentree Pimco	222.3	-7.9	75.0	397,526 499,456
Slackstone	247.3 249.2	1.3 1.3	95.0 78.1	499,456 186,657
Zais Group	87.2	-24.3	62.5	171,282
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TOTAL FIXED INCOME	\$1,861.9			2,543,640

## 1st Quarter 2020

1st Quarter 2020	Net Asset Value			Management Fees
Manager	\$ (Millions)	Annual Return	Annual Basis Points	Quarterly Dollar Amount
ALTERNATIVE ASSETS				
PRIVATE MARKETS				
Adams Street 2005 Non-US	2.9	0.7	9.3	3,492
Adams Street Partnership 2002 US <sup>2</sup>	1.1	0.9	0.0	-
Adams Street Partnership 2005 US	7.4	21.4	9.3	8,148
Adams Street 2007 US Fund	11.2	19.3	22.5	17,188
Adams Street 2007 Non-US	7.6	9.5	22.5	10,937
Adams Street 2007 Direct	3.2	40.4	40.0	5,000
Adams Street 2009 US Fund	18.6	16.7	42.0	26,042
Adams Street 2009 Non-US Developed	9.6	18.1	42.0	15,625
Adams Street 2009 Non-US Emerging	5.7	10.7	42.0	5,208
Adams Street 2009 Direct	3.0	7.0	80.0	10,833
AEA Investors Fund VI	53.3	6.6	150.0	124,756
AEA Investors Fund VII <sup>3</sup>	9.6	n/a	175.0	296,107
Atlas Partner Holdings II <sup>4</sup>	21.9	n/a	100.0	254,253
Baring Asia VII <sup>5</sup>	26.5	n/a	175.0	436,222
BCP Energy Services Fund A	33.9	1.4	200.0	229,691
BCP Fund II $A^3$	6.8	-7.5	200.0	375,000
Brinson <sup>2,6</sup>	3.3	-1.8	0.0	-
Brookfield Capital IV Brookfield Infrastructure IV <sup>7</sup>	42.9	21.5	175.0	220,317
	31.4	n/a	140.0	- 379,711
Brookfield Capital V <sup>8</sup> Adams Street V <sup>2</sup>	27.6	n/a	150.0	379,711
Apollo Inv Fund VII	1.7 7.9	-55.6 -10.1	0.0 0.0	-
Apollo Inv Fund VIII	58.6	19.6	75.0	21,355 74,987
Apollo European Fund II	18.9	-6.2	150.0	55,139
Apollo Inv Fund IX	13.8	43.1	150.0	211,839
ArcLight Energy Ptr Fund VI	63.4	-5.1	150.0	197,381
CCMP Capital III	56.0	14.3	100.0	98,804
Cerberus VI	122.9	16.6	150.0	468,750
Coller International Partners VI	32.9	12.1	72.9	195,750
Coller International Partners VII	62.5	5.9	125.0	235,656
Coller International Partners VIII <sup>9</sup>	0.6	n/a	150.0	1,185,274
Double Line Mortgage	135.3	10.5	100.0	271,053
Drug Royalty Fund III <sup>10</sup>	4.7	n/a	0.0	-
EIG Energy Fund XIV <sup>2</sup>	3.5	-34.9	0.0	_
EIG Energy Fund XV	13.0	-10.8	125.0	55,410
EIG Energy Fund XVI	44.8	-3.7	125.0	130,275
Energy Spectrum Fund VI	9.9	5.7	175.0	58,123
GTCR Fund XI	44.8	48.1	150.0	157,811
GTCR Fund XII	26.5	55.3	150.0	220,839
KPS SS Mid Cap <sup>11</sup>	3.4	n/a	125.0	40,388
Louisiana Growth Fund <sup>2, 10</sup>	0.1	n/a	0.0	, _
Louisiana Growth Fund II <sup>10</sup>	3.1	n/a	12.5	(51,512)
Gamut Fund I	25.5	18.0	200.0	215,219
Goldman Sachs PEP IX	21.8	2.7	8.0	20,409
Goldentree Distressed Fund III	40.7	10.6	125.0	105,190
John Hancock <sup>2</sup>	0.4	52.3	0.0	_
HIPEP Partnership III <sup>2</sup>	0.1	-3.3	0.0	<u>-</u>
Harbourvest VI - Direct <sup>2</sup>	1.1	-24.3	0.0	<u>-</u>
Harbourvest VI - Partnership <sup>2</sup>	0.8	-8.0	0.0	_
HIPEP Direct IV <sup>2</sup>	0.3	-17.1	0.0	_
Huff Alternative Fund <sup>2</sup>	4.9	1.3	0.0	_
Insight Venture Partner XI <sup>7</sup>	12.8	n/a	175.0	123,958
Insight Venture Partner X	55.0	26.2	175.0	218,750
KKR Asian Fund III	27.5	44.1	150.0	149,122
Marathon European Credit Opp Fund <sup>2</sup>	0.0	2.8	0.0	-
Mesirow III	3.7	-3.6	36.0	20,723
Mesirow IV	24.5	9.5	33.5	50,235
Mesirow V	46.1	17.2	41.3	62,010
Newstone Mezzanine II	4.7	8.3	100.0	17,837
OHA Strategic Credit Fund II	21.2	4.8	138.0	52,570
Oaktree European Fund III	30.0	3.3	175.0	159,918
Pantheon Europe VI	14.8	19.8	54.7	55,273
Pantheon VI	6.1	-18.7	34.9	43,187
Pantheon VII	16.0	3.9	49.2	61,513
Stepstone Fund II	0.9	-26.9	37.5	30,630
Stepstone Europe Fund II	15.0	2.0	50.0	16,762
Private Advisors IV	15.9	15.7	54.7	47,845
Private Advisors V	28.1	19.1	72.9	72,900

## 1st Quarter 2020

	Net Asset Value			Management Fees
Manager	\$ (Millions)	Annual Return	Annual Basis Points	Quarterly Dollar Amount
ALTERNATIVE ASSETS				
PRIVATE MARKETS cont'd				
Private Advisors VI	29.5	18.0	90.0	90,000
Q-BLK II	10.8	22.7	33.5	41,277
Q-BLK III <sup>2</sup>	21.9	8.9	0.0	-
Siguler Guff DOF III	31.0	11.2	12.0	62,390
Siguler Guff Fund IV	14.2	4.2	36.3	36,350
Siguler Guff Pelican Gem	74.6	7.3	75.0	103,353
Sterling Partners	15.4	-14.1	200.0	87,327
Vista Equity Partners IV	23.1	-1.2	150.0	57,164
Vista Equity Partners V	78.4	17.3	150.0	168,284
Vista Equity Partners VI	129.4	20.4	150.0	371,443
Vista Equity Partners VII	29.5	2.4	150.0	423,655
Warburg Pincus	17.5	-59.5	140.0	350,000
Williams Capital <sup>2</sup>	0.5	-38.8	0.0	-
ABSOLUTE RETURN STRATEGIES				
Bridgewater Pure Alpha	106.9	-11.7	200.0	587,661
Prisma Capital Partners	255.9	-3.1	65.0	440,144
Entrust Capital Partners	242.3	-18.0	110.3	691,855
RISK PARITY				
Bridgewater Custom <sup>12</sup>	373.9	-4.1	64.7	647,563
AQR Capital Management	348.0	-9.8	110.0	1,191,389
TOTAL ALTERNATIVE ASSETS <sup>13</sup>	\$3,280.6			12,919,760
TOTAL PLAN <sup>14</sup>	\$9,824.3			18,890,168

<sup>1</sup> The fund's fee structure is performance based.

<sup>2</sup> The fund no longer charges fees.

<sup>3</sup> The portfolio was funded 10/2018.

<sup>4</sup> The portfolio was funded 8/2019.

- <sup>5</sup> The portfolio was funded 5/2019.
- <sup>6</sup> This is a composite of six limited partnerships.
- <sup>7</sup> The portfolio was funded 3/2020.

<sup>8</sup> The portfolio was funded 9/2019.

<sup>9</sup> Funding to occur in 5/2020.

<sup>10</sup> LASERS is awaiting final escrow distribution from this fund, so one year return is not listed.

<sup>11</sup> The portfolio was funded 11/2019.

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

<sup>13</sup> The net asset values and returns are reflected net of fees for all Alternatives,

and includes \$1.6 million for Paamco and \$2.3 million for Stark, which are being liquidated.

<sup>14</sup> The Total Plan Market Value includes \$144.1 million in cash/cash equivalents.

The Total Quarterly Dollar Amount does not include \$327,034 for Self-Directed Plan and Optional Retirement Plan.

The Total Quarterly Dollar Amount includes a credit of \$6,873.72 in fees for liquidating funds.

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

Annual Basis Points for fees vary and may be based on historical cost, net asset value, invested capital or other similar items.

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.

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-hundreth 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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