



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

For the Period October 1 to December 31, 2019

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, 2019. 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%.

## 4th Quarter 2019

| Manager                               | Net Asset Value<br>\$ (Millions) | Annual Return | Management Fees     |                         |
|---------------------------------------|----------------------------------|---------------|---------------------|-------------------------|
|                                       |                                  |               | Annual Basis Points | Quarterly Dollar Amount |
| <b>U.S. EQUITY</b>                    |                                  |               |                     |                         |
| <b>LARGE CAP VALUE</b>                |                                  |               |                     |                         |
| Aronson Johnson & Ortiz <sup>1</sup>  | 234.6                            | 27.3          | 0.0                 | 19,713                  |
| <b>SMALL CAP GROWTH</b>               |                                  |               |                     |                         |
| Rice Hall James <sup>1</sup>          | 204.3                            | 17.5          | 0.0                 | -                       |
| <b>SMALL CAP VALUE</b>                |                                  |               |                     |                         |
| LSV Asset Management                  | 210.8                            | 21.8          | 55.8                | 296,811                 |
| <b>INDEX FUNDS</b>                    |                                  |               |                     |                         |
| LASERS S&P 400 Index Fund             | 466.6                            | 26.2          | n/a                 | -                       |
| LASERS S&P 500 Index Fund             | 1291.3                           | 31.4          | n/a                 | -                       |
| LASERS S&P 600 Index Fund             | 275.0                            | 22.9          | n/a                 | -                       |
| <b>NON-U.S. EQUITY</b>                |                                  |               |                     |                         |
| <b>LARGE CAP VALUE</b>                |                                  |               |                     |                         |
| Mondrian Investment Partners          | 246.4                            | 21.7          | 28.0                | 171,084                 |
| <b>LARGE CAP CORE</b>                 |                                  |               |                     |                         |
| LASERS MSCI World Ex-USA Index Fund   | 1426.4                           | 22.4          | n/a                 | -                       |
| LASERS Terror-Free International Fund | 31.3                             | 23.6          | n/a                 | -                       |
| <b>INT'L SMALL CAP</b>                |                                  |               |                     |                         |
| Mondrian Investment Partners          | 240.8                            | 25.9          | 70.2                | 421,836                 |
| Goldman Sachs                         | 357.7                            | 24.4          | 50.9                | 450,474                 |
| <b>EMERGING MARKETS</b>               |                                  |               |                     |                         |
| City of London Investment Management  | 450.7                            | 22.6          | 93.0                | 914,949                 |
| Westwood Global Emerging Markets      | 307.9                            | 12.1          | 88.1                | 639,383                 |
| LSV Custom Emerging Markets           | 706.3                            | 13.5          | 50.0                | 843,253                 |
| <b>TOTAL EQUITY</b>                   | <b>\$6,450.1</b>                 |               |                     | <b>3,757,503</b>        |
| <b>US FIXED INCOME</b>                |                                  |               |                     |                         |
| <b>INVESTMENT GRADE</b>               |                                  |               |                     |                         |
| Loomis Sayles & Co.                   | 205.9                            | 9.9           | 17.4                | 87,496                  |
| Orleans Capital Mgt                   | 149.1                            | 9.9           | 12.0                | 43,933                  |
| <b>HIGH YIELD</b>                     |                                  |               |                     |                         |
| JP Morgan                             | 175.3                            | 13.7          | 27.0                | 113,397                 |
| Nomura                                | 171.9                            | 13.2          | 45.0                | 185,599                 |
| <b>EMERGING MARKET DEBT</b>           |                                  |               |                     |                         |
| Stone Harbor                          | 215.3                            | 13.8          | 52.5                | 271,300                 |
| Gramercy                              | 122.3                            | 8.2           | 85.0                | 290,376                 |
| <b>Global Multi-Sector</b>            |                                  |               |                     |                         |
| Doubleline                            | 254.1                            | 9.0           | 60.0                | 330,346                 |
| Goldentree                            | 259.3                            | 12.5          | 75.0                | 391,736                 |
| Pimco                                 | 206.4                            | 11.9          | 95.0                | 322,697                 |
| Blackstone                            | 196.8                            | 5.2           | 78.1                | 89,506                  |
| Zais Group <sup>2</sup>               | 88.7                             | n/a           | 62.5                | 132,923                 |
| <b>TOTAL FIXED INCOME</b>             | <b>\$2,045.0</b>                 |               |                     | <b>2,259,309</b>        |

## 4th Quarter 2019

| Manager  | Net Asset Value<br>\$ (Millions) | Annual Return | Management Fees     |                         |
|--|----------------------------------|---------------|---------------------|-------------------------|
|  |                                  |               | Annual Basis Points | Quarterly Dollar Amount |
| <b>ALTERNATIVE ASSETS</b>                      |                                  |               |                     |                         |
| <b>PRIVATE MARKETS</b>                         |                                  |               |                     |                         |
| Adams Street 2005 Non-US                       | 2.8                              | -6.7          | 18.6                | 6,985                   |
| Adams Street Partnership 2002 US <sup>3</sup>  | 1.1                              | -8.4          | 0.0                 | -                       |
| Adams Street Partnership 2005 US               | 7.0                              | 8.3           | 18.6                | 16,296                  |
| Adams Street 2007 US Fund                      | 11.7                             | 14.5          | 30.0                | 22,917                  |
| Adams Street 2007 Non-US                       | 7.3                              | -2.1          | 30.0                | 14,583                  |
| Adams Street 2007 Direct                       | 2.9                              | 6.6           | 60.0                | 6,498                   |
| Adams Street 2009 US Fund                      | 19.0                             | 12.8          | 50.0                | 31,250                  |
| Adams Street 2009 Non-US Developed             | 8.9                              | 11.5          | 50.0                | 18,750                  |
| Adams Street 2009 Non-US Emerging              | 5.6                              | 6.8           | 50.0                | 6,250                   |
| Adams Street 2009 Direct                       | 2.9                              | -11.0         | 100.0               | 12,381                  |
| AEA Investors Fund VI                          | 51.2                             | 12.0          | 175.0               | (84,445)                |
| AEA Investors Fund VII <sup>4</sup>            | 8.8                              | n/a           | 175.0               | 621,377                 |
| Atlas Partner Holdings II <sup>5</sup>         | 21.7                             | n/a           | 100.0               | 753,485                 |
| Baring Asia VII <sup>6</sup>                   | 18.9                             | n/a           | 175.0               | 436,223                 |
| BCP Energy Services Fund A                     | 43.4                             | 0.2           | 200.0               | 250,000                 |
| BCP Fund II A <sup>4</sup>                     | 6.6                              | n/a           | 200.0               | 375,000                 |
| Brinson <sup>3,7</sup>                         | 3.3                              | -8.0          | 0.0                 | -                       |
| Brookfield Capital IV                          | 41.8                             | 37.4          | 175.0               | 220,317                 |
| Brookfield Capital V <sup>8</sup>              | 17.3                             | n/a           | 150.0               | 379,973                 |
| Adams Street V <sup>3</sup>                    | 2.9                              | -29.8         | 0.0                 | -                       |
| Apollo Inv Fund VII                            | 8.0                              | -27.2         | 0.0                 | 18,381                  |
| Apollo Inv Fund VIII                           | 56.9                             | 3.7           | 150.0               | 68,790                  |
| Apollo European Fund II                        | 20.6                             | -6.5          | 175.0               | 55,463                  |
| Apollo Inv Fund IX <sup>9</sup>                | 13.3                             | n/a           | 130.0               | 228,432                 |
| ArcLight Energy Ptr Fund VI                    | 68.9                             | -2.6          | 150.0               | 203,588                 |
| CCMP Capital III                               | 53.4                             | 2.0           | 150.0               | 113,888                 |
| Cerberus VI                                    | 118.2                            | 8.0           | 150.0               | 393,828                 |
| Coller International Partners VI               | 32.8                             | 15.4          | 81.0                | 203,976                 |
| Coller International Partners VII              | 61.5                             | 5.6           | 150.0               | 235,656                 |
| Double Line Mortgage                           | 130.5                            | 13.1          | 100.0               | 270,153                 |
| Drug Royalty Fund III <sup>10</sup>            | 5.5                              | n/a           | 150.0               | -                       |
| EIG Energy Fund XIV <sup>3</sup>               | 4.7                              | -30.2         | 0.0                 | -                       |
| EIG Energy Fund XV <sup>11</sup>               | 14.2                             | -10.6         | 125.0               | 57,585                  |
| EIG Energy Fund XVI <sup>11</sup>              | 50.1                             | 0.6           | 125.0               | 128,691                 |
| Energy Spectrum Fund V <sup>3</sup>            | 0.0                              | -69.3         | 0.0                 | -                       |
| Energy Spectrum Fund VI                        | 10.5                             | 13.0          | 175.0               | 58,123                  |
| GTCR Fund XI                                   | 46.9                             | 39.7          | 135.0               | 133,379                 |
| GTCR Fund XII                                  | 17.4                             | 27.4          | 150.0               | 219,053                 |
| Louisiana Growth Fund <sup>3</sup>             | 0.1                              | 20.6          | 0.0                 | -                       |
| Louisiana Growth Fund II                       | 0.2                              | -0.3          | 12.5                | 52,562                  |
| Gamut Fund I                                   | 24.2                             | 21.5          | 200.0               | 240,879                 |
| Goldman Sachs PEP IX                           | 21.2                             | 0.1           | 10.7                | 20,409                  |
| Goldentree Distressed Fund III                 | 21.0                             | 3.5           | 125.0               | 43,346                  |
| John Hancock <sup>3</sup>                      | 0.4                              | 52.3          | 0.0                 | -                       |
| HIPEP Partnership III <sup>3</sup>             | 0.1                              | -4.1          | 0.0                 | -                       |
| Harbourvest VI - Buyout <sup>3</sup>           | 0.0                              | -8.7          | 0.0                 | -                       |
| Harbourvest VI - Direct <sup>3</sup>           | 1.1                              | -24.3         | 0.0                 | -                       |
| Harbourvest VI - Partnership <sup>3</sup>      | 0.8                              | -8.0          | 0.0                 | -                       |
| HIPEP Direct IV <sup>3</sup>                   | 0.3                              | -17.1         | 0.0                 | -                       |
| Huff Alternative Fund <sup>3</sup>             | 4.9                              | 1.3           | 0.0                 | -                       |
| Insight Venture Partner                        | 47.4                             | 17.9          | 175.0               | 218,750                 |
| KKR Asian Fund III                             | 29.0                             | 45.7          | 125.0               | 37,167                  |
| Marathon European Credit Opp Fund <sup>3</sup> | 5.8                              | 16.2          | 0.0                 | -                       |
| Mesirow III                                    | 3.7                              | -3.6          | 40.0                | 20,713                  |
| Mesirow IV                                     | 25.1                             | 9.5           | 37.2                | 55,800                  |
| Mesirow V                                      | 46.1                             | 17.2          | 45.9                | 68,890                  |
| Newstone Mezzanine II <sup>11</sup>            | 5.3                              | 14.7          | 100.0               | 17,138                  |
| OHA Strategic Credit Fund II                   | 21.0                             | 7.3           | 175.0               | 52,570                  |
| Oaktree European Fund III                      | 29.7                             | -1.1          | 175.0               | 102,656                 |
| Pantheon Europe VI                             | 15.6                             | 14.0          | 60.8                | 61,409                  |
| Pantheon VI                                    | 9.1                              | 3.5           | 38.4                | 47,987                  |
| Pantheon VII                                   | 16.7                             | -0.8          | 54.7                | 68,157                  |
| Stepstone Fund II                              | 0.9                              | -25.5         | 37.5                | 25,201                  |
| Stepstone Europe Fund II                       | 15.3                             | 2.4           | 50.0                | 18,011                  |
| Private Advisors IV                            | 17.7                             | 15.3          | 60.8                | 53,156                  |
| Private Advisors V                             | 33.3                             | 18.5          | 81.0                | 72,900                  |
| Private Advisors VI                            | 27.1                             | 18.0          | 90.0                | 90,000                  |
| Q-BLK II                                       | 12.4                             | 30.7          | 45.9                | 46,784                  |
| Q-BLK III <sup>3</sup>                         | 22.7                             | 16.4          | 0.0                 | -                       |

## 4th Quarter 2019

| Manager                                       | Net Asset Value   |               | Management Fees     |                         |
|---|-------------------|---------------|---------------------|-------------------------|
|   | \$ (Millions)     | Annual Return | Annual Basis Points | Quarterly Dollar Amount |
| <b>ALTERNATIVE ASSETS</b>                     |                   |               |                     |                         |
| <b>PRIVATE MARKETS cont'd</b>                 |                   |               |                     |                         |
| Siguler Guff DOF III                          | 32.5              | 8.6           | 16.0                | 77,660                  |
| Siguler Guff Fund IV                          | 15.1              | 5.4           | 45.4                | 36,211                  |
| Siguler Guff Pelican Gem                      | 69.0              | 6.8           | 75.0                | 100,899                 |
| Sterling Partners                             | 15.7              | -19.8         | 200.0               | 91,123                  |
| Vista Equity Partners IV                      | 22.9              | -10.2         | 150.0               | 57,164                  |
| Vista Equity Partners V                       | 72.7              | 13.7          | 150.0               | 279,754                 |
| Vista Equity Partners VI                      | 120.3             | 13.7          | 150.0               | 352,151                 |
| Vista Equity Partners VII <sup>12</sup>       | 29.8              | n/a           | 150.0               | 468,750                 |
| Warburg Pincus <sup>9</sup>                   | 14.6              | n/a           | 140.0               | 350,000                 |
| Williams Capital <sup>3</sup>                 | 0.5               | -38.8         | 0.0                 | -                       |
| <b>ABSOLUTE RETURN STRATEGIES</b>             |                   |               |                     |                         |
| Bridgewater Pure Alpha                        | 146.5             | 0.4           | 200.0               | 725,690                 |
| Prisma Capital Partners                       | 277.6             | 10.8          | 65.0                | 445,140                 |
| Entrust Capital Partners                      | 286.9             | 2.2           | 106.9               | 685,617                 |
| <b>RISK PARITY</b>                            |                   |               |                     |                         |
| Bridgewater Custom <sup>13</sup>              | 420.6             | 14.2          | 63.5                | 671,878                 |
| AQR Capital Management                        | 416.4             | 21.3          | 110.0               | 1,197,368               |
| <b>TOTAL ALTERNATIVE ASSETS <sup>14</sup></b> | <b>\$3,404.0</b>  |               |                     | <b>12,430,717</b>       |
| <b>TOTAL PLAN <sup>15</sup></b>               | <b>\$11,950.0</b> |               |                     | <b>18,447,529</b>       |

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

<sup>2</sup> The portfolio was funded 4/2019.

<sup>3</sup> The fund no longer charges fees.

<sup>4</sup> The portfolio was funded 10/2018.

<sup>5</sup> The portfolio was funded 8/2019.

<sup>6</sup> The portfolio was funded 5/2019.

<sup>7</sup> This is a composite of six limited partnerships.

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

<sup>9</sup> The portfolio was funded 3/2019.

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

<sup>11</sup> Annual Basis Points are based on historical cost or net asset value.

<sup>12</sup> The portfolio was funded 02/2019.

<sup>13</sup> Bridgewater Major Market and Bridgewater All Weather were merged to form this new fund 01/2018.

<sup>14</sup> The net asset values and returns are reflected net of fees for all Alternatives, and includes \$2.0 million for Paamco and \$2.3 million for Stark, which are being liquidated.

<sup>15</sup> The Total Plan Market Value includes \$50.9 million in cash/cash equivalents.

The Total Quarterly Dollar Amount does not include \$234,113 for Self-Directed Plan and Optional Retirement Plan.

The Total Quarterly Dollar Amount does not include \$5,643 in fees for liquidating funds.

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

## Comments

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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

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|                               |   |
|-------------------------------|---|
| <b>Annual Return</b>          | 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. |
| <b>Basis Point</b>            | 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.   |
| <b>Concentrated Portfolio</b> | A portfolio that generally has fewer securities than traditional portfolios.  |
| <b>Index Fund</b>             | 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.  |
| <b>Management Fee</b>         | The fee charged by the investment manager for supervision of an investment. Generally quoted in terms of a percent of assets.   |
| <b>Market Value</b>           | 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.  |
| <b>Universe</b>               | The list of all assets eligible for inclusion in a portfolio.   |

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