

# INVESTMENT MARKET UPDATE

(As of May 31, 2020)



Firefighters' Retirement System of Louisiana

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

# MARKET ENVIRONMENT

Risk assets pushed higher this month as economies around the world began reopening and relaxing restrictions. While COVID-19 remains a dominant headline, news of progress in developing a vaccine and signs of a rebound in economic activity bolstered market sentiment.

Over the past month, the US has been hit by a slew of weak economic data: the unemployment rate hit 14.7%, corporate earnings contracted significantly, and the CPI increased 0.3% year-over-year. Despite the bleak data, domestic equities pushed higher – extending their recent rally. The S&P 500 Index increased 4.8% for the month, though it is still down 5% so far this year. Further, small caps benefitted from the wave of risk-on sentiment, with the Russell 2000 Index gaining 6.5% in May.

International and emerging market equities also increased last month, with the MSCI EAFE and MSCI Emerging Markets indexes up 4.4% and 0.8%, respectively. International developed market assets experienced a currency tailwind as the dollar weakened relative to local currencies including the euro, Australian dollar, and Swiss franc. In rates, global yields ended the month moderately higher. US rates experienced modest curve steepening with 10-year and 30-year Treasury yields increasing two and 18 basis points, respectively. In response, the Barclays US Long Treasury Index fell 1.9% during the month. Within credit, spreads broadly declined, with the largest tightening occurring in lower-quality areas. The option-adjusted spread on the Barclays US Corporate High Yield Index decreased 107 basis points in May to 6.37%, corresponding to a 4.4% return. Within emerging markets, hard and local currency debt increased 6.1% and 5.2%, respectively, according to the JPM EMBI Global Diversified Index and JPM GBI-EM Global Diversified Index; the recent performance can be attributed to a significant decline in spreads for the hard currency index and modest dollar weakness providing a tailwind to local returns.

Real assets broadly rallied this month as the Bloomberg Commodity Index increased 4.3%, with the largest gains coming from energy. Spot WTI Crude Oil recovered 83.7% for the month, reflecting a bounce back in demand as quarantine restrictions are eased and oil supply tightened; midstream energy also benefitted from the positive sentiment. The Alerian Midstream Energy Index increased 6.9% for the month, though it remains in the red with losses of 26.6% so far this year.

While the recent performance of risk assets has been encouraging, we remind investors of the significant uncertainties still surrounding the global economy. As such, we expect heightened volatility to continue across capital markets given the wide range of economic outcomes. To that end, we encourage investors to be disciplined and mindful of market liquidity.



# CALENDAR YEAR INDEX PERFORMANCE

|                                 | 2010  | 2011   | 2012  | 2013   | 2014   | 2015   | 2016  | 2017  | 2018   | 2019  | May   | YTD    |
|---------------------------------|-------|--------|-------|--------|--------|--------|-------|-------|--------|-------|-------|--------|
| <b>S&amp;P 500</b>              | 15.1% | 2.1%   | 16.0% | 32.4%  | 13.7%  | 1.4%   | 12.0% | 21.8% | -4.4%  | 31.5% | 4.8%  | -5.0%  |
| <b>Russell 1000</b>             | 16.1% | 1.5%   | 16.4% | 33.1%  | 13.2%  | 0.9%   | 12.1% | 21.7% | -4.8%  | 31.4% | 5.3%  | -4.9%  |
| <b>Russell 2000</b>             | 26.9% | -4.2%  | 16.3% | 38.8%  | 4.9%   | -4.4%  | 21.3% | 14.6% | -11.0% | 25.5% | 6.5%  | -15.9% |
| <b>Russell 2500</b>             | 26.7% | -2.5%  | 17.9% | 36.8%  | 7.1%   | -2.9%  | 17.6% | 16.8% | -10.0% | 27.8% | 7.4%  | -13.5% |
| <b>MSCI EAFE</b>                | 7.8%  | -12.1% | 17.3% | 22.8%  | -4.9%  | -0.8%  | 1.0%  | 25.0% | -13.8% | 22.0% | 4.4%  | -14.3% |
| <b>MSCI EM</b>                  | 18.9% | -18.4% | 18.2% | -2.6%  | -2.2%  | -14.9% | 11.2% | 37.3% | -14.6% | 18.4% | 0.8%  | -16.0% |
| <b>MSCI ACWI</b>                | 12.7% | -7.3%  | 16.1% | 22.8%  | 4.2%   | -2.4%  | 7.9%  | 24.0% | -9.4%  | 26.6% | 4.3%  | -9.2%  |
| <b>Private Equity</b>           | 19.8% | 9.5%   | 12.6% | 22.3%  | 14.6%  | 10.4%  | 10.3% | 21.0% | 13.1%  | 11.0% | -     | 10.4%  |
| <b>BC TIPS</b>                  | 6.3%  | 13.6%  | 7.0%  | -8.6%  | 3.6%   | -1.4%  | 4.7%  | 3.0%  | -1.3%  | 8.4%  | 0.3%  | 4.8%   |
| <b>BC Municipal</b>             | 2.4%  | 10.7%  | 6.8%  | -2.6%  | 9.1%   | 3.3%   | 0.2%  | 5.4%  | 1.3%   | 7.5%  | 3.2%  | 1.2%   |
| <b>BC Muni High Yield</b>       | 7.8%  | 9.2%   | 18.1% | -5.5%  | 13.8%  | 1.8%   | 3.0%  | 9.7%  | 4.8%   | 10.7% | 4.1%  | -6.4%  |
| <b>BC US Corporate HY</b>       | 15.1% | 5.0%   | 15.8% | 7.4%   | 2.5%   | -4.5%  | 17.1% | 7.5%  | -2.1%  | 14.3% | 4.4%  | -4.7%  |
| <b>BC US Agg Bond</b>           | 6.5%  | 7.8%   | 4.2%  | -2.0%  | 6.0%   | 0.5%   | 2.6%  | 3.5%  | 0.0%   | 8.7%  | 0.5%  | 5.5%   |
| <b>BC Global Agg</b>            | 5.5%  | 5.6%   | 4.3%  | -2.6%  | 0.6%   | -3.2%  | 2.1%  | 7.4%  | -1.2%  | 6.8%  | 0.4%  | 2.1%   |
| <b>BC Long Treasuries</b>       | 9.4%  | 29.9%  | 3.6%  | -12.7% | 25.1%  | -1.2%  | 1.3%  | 8.5%  | -1.8%  | 14.8% | -1.9% | 21.0%  |
| <b>BC US Long Credit</b>        | 10.7% | 17.1%  | 12.7% | -6.6%  | 16.4%  | -4.6%  | 10.2% | 12.2% | -6.8%  | 23.4% | 1.5%  | 3.3%   |
| <b>BC US STRIPS 20+ Yr</b>      | 10.9% | 58.5%  | 3.0%  | -21.0% | 46.4%  | -3.7%  | 1.4%  | 13.7% | -4.1%  | 20.9% | -3.2% | 28.5%  |
| <b>JPM GBI-EM Global Div</b>    | 15.7% | -1.8%  | 16.8% | -9.0%  | -5.7%  | -14.9% | 9.9%  | 15.2% | -6.2%  | 13.5% | 5.2%  | -7.3%  |
| <b>JPM EMBI Glob Div</b>        | 12.2% | 7.3%   | 17.4% | -5.3%  | 7.4%   | 1.2%   | 10.2% | 10.3% | -4.3%  | 15.0% | 6.1%  | -6.1%  |
| <b>CS Hedge Fund</b>            | 10.9% | -2.5%  | 7.7%  | 9.7%   | 4.1%   | -0.7%  | 1.2%  | 7.1%  | -3.2%  | 9.3%  | -     | -6.8%  |
| <b>BBG Commodity</b>            | 16.8% | -13.3% | -1.1% | -9.5%  | -17.0% | -24.7% | 11.8% | 1.7%  | -11.2% | 7.7%  | 4.3%  | -21.2% |
| <b>Alerian MLP</b>              | 35.9% | 13.9%  | 4.8%  | 27.6%  | 4.8%   | -32.6% | 18.3% | -6.5% | -12.4% | 6.6%  | 9.0%  | -30.2% |
| <b>FTSE NAREIT Equity REITs</b> | 28.0% | 8.3%   | 18.1% | 2.5%   | 30.1%  | 3.2%   | 8.5%  | 5.2%  | -4.6%  | 26.0% | 0.2%  | -21.1% |

Source: FactSet, Barclays, Thomson One

\*Private Equity return represents calendar year pooled IRR and is subject to a one quarter lag



## Firefighters' Retirement System of Louisiana

# INVESTMENT PERFORMANCE FLASH REPORT

### Investment Performance Summary - Net of Fees

|                                       | Market Value<br>(\$) | Policy %     | % of<br>Portfolio | 1 Mo<br>(%) | YTD<br>(%)   | Fiscal<br>YTD<br>(%) | 1 Yr<br>(%) | 3 Yrs<br>(%) | 5 Yrs<br>(%) | 10 Yrs<br>(%) | Inception<br>(%) | Inception<br>Date |
|---------------------------------------|----------------------|--------------|-------------------|-------------|--------------|----------------------|-------------|--------------|--------------|---------------|------------------|-------------------|
| <b>Total Plan Composite</b>           | <b>1,766,491,332</b> | <b>100.0</b> | <b>100.0</b>      | <b>2.5</b>  | <b>-4.9</b>  | <b>1.2</b>           | <b>5.7</b>  | <b>4.2</b>   | <b>4.2</b>   | <b>5.4</b>    | <b>5.6</b>       | <b>Sep-92</b>     |
| Policy Index                          |                      |              |                   | 2.7         | -4.0         | 1.9                  | 6.6         | 5.7          | 5.8          | --            | --               | Sep-92            |
| Allocation Index                      |                      |              |                   | 2.4         | -3.7         | 2.1                  | 6.7         | 5.6          | 5.5          | --            | --               | Sep-92            |
| <b>Total Equity Composite</b>         | <b>842,469,672</b>   | <b>49.0</b>  | <b>47.7</b>       | <b>4.2</b>  | <b>-12.3</b> | <b>-4.1</b>          | <b>2.4</b>  | <b>2.5</b>   | <b>3.6</b>   | <b>8.3</b>    | <b>6.8</b>       | <b>Sep-92</b>     |
| MSCI ACWI                             |                      |              |                   | 4.3         | -9.2         | -1.0                 | 5.4         | 5.2          | 5.3          | 8.5           | 7.3              | Sep-92            |
| <b>Domestic Equity Composite</b>      | <b>392,736,131</b>   | <b>21.5</b>  | <b>22.2</b>       | <b>5.2</b>  | <b>-8.4</b>  | <b>1.0</b>           | <b>8.1</b>  | <b>7.0</b>   | <b>6.8</b>   | <b>10.9</b>   | <b>7.7</b>       | <b>Sep-92</b>     |
| Russell 3000                          |                      |              |                   | 5.3         | -5.6         | 4.1                  | 11.5        | 9.5          | 9.2          | 12.8          | 9.6              | Sep-92            |
| Mellon Stock Index Fund               | 301,998,761          |              | 17.1              | 4.8         | -5.0         | 5.4                  | 12.8        | 10.2         | 9.8          | --            | 10.9             | Nov-13            |
| S&P 500                               |                      |              |                   | 4.8         | -5.0         | 5.4                  | 12.8        | 10.2         | 9.9          | 13.2          | 11.0             | Nov-13            |
| <b>SMID Cap Composite</b>             | <b>90,734,614</b>    | <b>5.5</b>   | <b>5.1</b>        | <b>6.7</b>  | <b>-19.4</b> | <b>-13.1</b>         | <b>-6.9</b> | <b>-1.0</b>  | <b>0.9</b>   | <b>--</b>     | <b>5.6</b>       | <b>Oct-12</b>     |
| Russell 2500                          |                      |              |                   | 7.4         | -13.5        | -7.4                 | -0.8        | 3.9          | 4.7          | 10.3          | 9.5              | Oct-12            |
| Rothschild U.S. SMID Core             | 46,885,845           |              | 2.7               | 7.6         | -16.5        | -10.6                | -5.0        | 1.0          | --           | --            | 3.1              | Jul-15            |
| Russell 2500                          |                      |              |                   | 7.4         | -13.5        | -7.4                 | -0.8        | 3.9          | 4.7          | 10.3          | 4.9              | Jul-15            |
| QMA SMID                              | 43,848,769           |              | 2.5               | 5.8         | -22.3        | -15.6                | -8.9        | --           | --           | --            | -10.2            | Jul-18            |
| Russell 2500                          |                      |              |                   | 7.4         | -13.5        | -7.4                 | -0.8        | 3.9          | 4.7          | 10.3          | -3.0             | Jul-18            |
| <b>International Equity Composite</b> | <b>198,901,205</b>   | <b>12.0</b>  | <b>11.3</b>       | <b>3.8</b>  | <b>-17.3</b> | <b>-10.4</b>         | <b>-4.3</b> | <b>-1.6</b>  | <b>0.4</b>   | <b>--</b>     | <b>3.9</b>       | <b>Oct-12</b>     |
| MSCI ACWI ex USA                      |                      |              |                   | 3.3         | -14.8        | -8.9                 | -3.4        | -0.2         | 0.8          | 4.4           | 3.5              | Oct-12            |
| LSV International Equity Value        | 93,024,356           |              | 5.3               | 2.4         | -21.1        | -14.4                | -9.5        | -3.7         | -0.6         | 4.6           | 4.2              | Oct-04            |
| MSCI Custom Benchmark                 |                      |              |                   | 3.3         | -14.8        | -8.9                 | -3.4        | -0.2         | 0.8          | 4.4           | 4.2              | Oct-04            |
| Fisher All Foreign Equity             | 105,876,849          |              | 6.0               | 5.0         | -13.7        | -6.4                 | 0.7         | 0.3          | 1.4          | 5.9           | 5.9              | Oct-04            |
| MSCI ACWI ex USA                      |                      |              |                   | 3.3         | -14.8        | -8.9                 | -3.4        | -0.2         | 0.8          | 4.4           | 4.9              | Oct-04            |

Rothschild U.S. SMID Core and QMA SMID are preliminary as of 05/31/2020, and subject to change when finalized.

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.

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.

Returns are net of manager fees.



## 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>Global Equity Composite</b>         | <b>168,249,742</b> | <b>10.0</b> | <b>9.5</b>     | <b>4.3</b> | <b>-12.4</b> | <b>-4.1</b>    | <b>2.1</b>  | <b>-0.6</b> | <b>0.9</b> | <b>--</b>  | <b>6.9</b>    | <b>Oct-12</b>  |
| MSCI ACWI                              |                    |             |                | 4.3        | -9.2         | -1.0           | 5.4         | 5.2         | 5.3        | 8.5        | 7.9           | Oct-12         |
| Boston Partners Global Equity          | 86,892,286         |             | 4.9            | 4.1        | -18.3        | -12.3          | -6.9        | -2.0        | --         | --         | 2.5           | Nov-16         |
| MSCI ACWI                              |                    |             |                | 4.3        | -9.2         | -1.0           | 5.4         | 5.2         | 5.3        | 8.5        | 8.3           | Nov-16         |
| State Street ACWI Index Fund           | 81,059,273         |             | 4.6            | 4.4        | -9.0         | --             | --          | --          | --         | --         | 1.4           | Sep-19         |
| MSCI ACWI                              |                    |             |                | 4.3        | -9.2         | -1.0           | 5.4         | 5.2         | 5.3        | 8.5        | 1.1           | Sep-19         |
| <b>Emerging Markets Equity</b>         | <b>82,582,594</b>  | <b>5.5</b>  | <b>4.7</b>     | <b>0.9</b> | <b>-16.8</b> | <b>-10.8</b>   | <b>-5.0</b> | <b>-1.4</b> | <b>0.5</b> | <b>--</b>  | <b>0.6</b>    | <b>Oct-13</b>  |
| MSCI Emerging Markets                  |                    |             |                | 0.8        | -16.0        | -10.0          | -4.4        | -0.2        | 0.9        | 2.5        | 1.4           | Oct-13         |
| Acadian Emerging Markets Equity        | 53,849,997         |             | 3.0            | 0.6        | -17.6        | -11.8          | -6.1        | -3.2        | -0.7       | --         | -0.1          | Dec-13         |
| MSCI Emerging Markets                  |                    |             |                | 0.8        | -16.0        | -10.0          | -4.4        | -0.2        | 0.9        | 2.5        | 1.0           | Dec-13         |
| Invesco Oppenheimer Developing Markets | 28,732,596         |             | 1.6            | 1.6        | -15.2        | -8.7           | -2.8        | 2.4         | 2.9        | --         | 1.7           | Jan-14         |
| MSCI Emerging Markets                  |                    |             |                | 0.8        | -16.0        | -10.0          | -4.4        | -0.2        | 0.9        | 2.5        | 1.2           | Jan-14         |
| <b>Total Fixed Income Composite</b>    | <b>547,786,418</b> | <b>31.0</b> | <b>31.0</b>    | <b>0.8</b> | <b>5.3</b>   | <b>8.3</b>     | <b>10.3</b> | <b>5.7</b>  | <b>4.4</b> | <b>--</b>  | <b>2.7</b>    | <b>Oct-12</b>  |
| Total Fixed Income Custom Benchmark    |                    |             |                | 1.4        | 2.9          | 5.8            | 8.0         | 4.4         | 3.4        | 3.2        | 2.2           | Oct-12         |
| <b>Core Fixed Income</b>               | <b>469,269,381</b> | <b>23.0</b> | <b>26.6</b>    | <b>0.6</b> | <b>5.1</b>   | <b>7.8</b>     | <b>9.3</b>  | <b>6.3</b>  | <b>4.7</b> | <b>--</b>  | <b>3.9</b>    | <b>Dec-10</b>  |
| BBgBarc US Aggregate TR                |                    |             |                | 0.5        | 5.5          | 8.1            | 9.4         | 5.1         | 3.9        | 3.9        | 3.7           | Dec-10         |
| Orleans Core Fixed Income              | 99,415,294         |             | 5.6            | 1.1        | 3.8          | 6.8            | 8.5         | 4.8         | 3.9        | 4.0        | 5.7           | Aug-92         |
| BBgBarc US Aggregate TR                |                    |             |                | 0.5        | 5.5          | 8.1            | 9.4         | 5.1         | 3.9        | 3.9        | 5.5           | Aug-92         |
| Blackrock US Debt                      | 369,854,087        |             | 20.9           | 0.5        | 5.5          | 8.0            | 9.4         | 5.1         | 3.9        | --         | 3.9           | Nov-14         |
| BBgBarc US Aggregate TR                |                    |             |                | 0.5        | 5.5          | 8.1            | 9.4         | 5.1         | 3.9        | 3.9        | 3.9           | Nov-14         |
| <b>US TIPS Composite</b>               | <b>57,262,274</b>  | <b>3.0</b>  | <b>3.2</b>     | <b>0.3</b> | <b>4.8</b>   | <b>7.0</b>     | <b>7.9</b>  | <b>--</b>   | <b>--</b>  | <b>--</b>  | <b>7.7</b>    | <b>Oct-18</b>  |
| Blackrock US TIPS Index                | 57,262,274         |             | 3.2            | 0.3        | 4.8          | 7.0            | 7.9         | --          | --         | --         | 7.7           | Oct-18         |
| BBgBarc US TIPS TR                     |                    |             |                | 0.3        | 4.8          | 7.1            | 8.0         | 4.3         | 3.3        | 3.6        | 7.7           | Oct-18         |
| <b>Emerging Markets Debt</b>           | <b>21,254,763</b>  | <b>5.0</b>  | <b>1.2</b>     | <b>6.3</b> | <b>--</b>    | <b>--</b>      | <b>--</b>   | <b>--</b>   | <b>--</b>  | <b>--</b>  | <b>6.3</b>    | <b>May-20</b>  |
| EMD Custom Benchmark                   |                    |             |                | 5.6        | --           | --             | --          | --          | --         | --         | 5.6           | May-20         |
| Wellington Blended Opportunistic EMD   | 21,254,763         |             | 1.2            | 6.3        | --           | --             | --          | --          | --         | --         | 6.3           | May-20         |
| EMD Custom Benchmark                   |                    |             |                | 5.6        | --           | --             | --          | --          | --         | --         | 5.6           | May-20         |

Thornburg Global Opportunities market value as of 05/31/2020 is \$290,142.

Boston Partners Global Equity and State Street ACWI Index Fund are preliminary as of 05/31/2020, and subject to change when finalized.

Results for periods longer than one year are annualized.

Fiscal YTD ends June 30th.

Global Equity 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 from 3/1/2016 to 12/31/2018; 70% Barclays Aggregate/20% JPM GBI EM Diversified/ 10% Barclays US TIPS going forward.

EMD Custom Benchmark is comprised of 50% JPMorgan EMBI Global Diversified/50% JPMorgan GBI-EM Global Diversified as of 05/01/2020.

Total Fixed Income Composite start date is 10/1/2012.



## 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>GAA Composite</b>                          | <b>162,466,828</b> | <b>10.0</b> | <b>9.2</b>     | <b>2.7</b> | <b>-3.7</b> | <b>2.4</b>     | <b>7.3</b> | <b>4.7</b> | <b>3.6</b> | <b>--</b>  | <b>3.9</b>    | <b>Apr-14</b>  |
| 60% MSCI World (Net) / 40% FTSE WGBI          |                    |             |                | 3.0        | -3.3        | 2.2            | 7.2        | 5.4        | 5.2        | 6.8        | 4.6           | Apr-14         |
| Blackrock Global Allocation                   | 91,073,666         |             | 5.2            | 3.6        | -1.4        | 5.5            | 9.9        | 4.9        | 4.2        | --         | 4.5           | Apr-14         |
| 60% MSCI World (Net) / 40% FTSE WGBI          |                    |             |                | 3.0        | -3.3        | 2.2            | 7.2        | 5.4        | 5.2        | 6.8        | 4.6           | Apr-14         |
| AQR Global Risk Premium – EL                  | 71,393,161         |             | 4.0            | 1.5        | -6.7        | -1.3           | 4.0        | 4.7        | 2.7        | --         | 3.2           | May-14         |
| 60% MSCI World (Net) / 40% FTSE WGBI          |                    |             |                | 3.0        | -3.3        | 2.2            | 7.2        | 5.4        | 5.2        | 6.8        | 4.5           | May-14         |
| <b>Total Alternative Composite</b>            | <b>186,236,211</b> | <b>10.0</b> | <b>10.5</b>    | <b>0.0</b> | <b>0.5</b>  | <b>3.8</b>     | <b>5.3</b> | <b>5.5</b> | <b>5.1</b> | <b>2.0</b> | <b>2.3</b>    | <b>Jun-05</b>  |
| <b>Private Equity Composite</b>               | <b>73,969,413</b>  | <b>4.0</b>  | <b>4.2</b>     | <b>0.0</b> | <b>0.0</b>  | <b>6.3</b>     | <b>8.0</b> | <b>6.7</b> | <b>6.2</b> | <b>2.4</b> | <b>-2.0</b>   | <b>Jul-05</b>  |
| CJA US All PE (1 Qtr Lag)                     |                    |             |                | 0.0        | 3.8         | 8.8            | 14.1       | 14.0       | 12.1       | 13.8       | 13.1          | Jul-05         |
| Murphree Venture (\$2,000,000)                | 346,249            |             | 0.0            | 0.0        | -34.9       | -50.6          | -50.1      | -40.2      | -25.7      | -12.2      | -10.0         | Sep-05         |
| Louisiana Fund I (\$1,000,000)                | 1,432,178          |             | 0.1            | 0.0        | 0.0         | -0.2           | -0.3       | -8.0       | -7.3       | -2.9       | -6.9          | Jul-05         |
| DTC Private Equity II-Q, L.P. (\$7,500,000)   | 1,196,193          |             | 0.1            | 0.0        | 3.6         | 2.9            | 5.6        | 7.2        | 5.0        | 9.9        | 5.8           | Feb-06         |
| Greenspring Associates III (\$9,230,000)      | 408,792            |             | 0.0            | 0.0        | -37.5       | -20.0          | -15.3      | -6.1       | -3.1       | 9.0        | 3.8           | Feb-06         |
| DCM Private Equity II (\$7,500,000)           | 983,305            |             | 0.1            | 0.0        | -2.5        | -8.4           | -11.8      | -4.7       | -3.9       | 0.2        | -2.1          | Feb-06         |
| GA Crossover Fund (\$25,000,000)              | 3,484,182          |             | 0.2            | 0.0        | 19.1        | 6.0            | 6.0        | -0.4       | 7.5        | 16.3       | 12.7          | Jan-08         |
| CCMP Capital Investors III (\$15,000,000)     | 14,043,395         |             | 0.8            | 0.0        | 4.9         | 10.8           | 12.9       | 9.0        | 11.0       | --         | 10.2          | Oct-14         |
| Landmark Equity Partners XV (\$25,000,000)    | 9,672,204          |             | 0.5            | 0.0        | -4.9        | 6.4            | 5.6        | 9.8        | 9.3        | --         | 12.4          | Dec-14         |
| Harbourvest IV (\$20,000,000)                 | 18,351,597         |             | 1.0            | 0.0        | 1.8         | 12.2           | 16.7       | 13.9       | --         | --         | 11.3          | Nov-16         |
| Mesirow (\$35,000,000)                        | 17,471,866         |             | 1.0            | 0.0        | 2.8         | 3.6            | 2.8        | --         | --         | --         | -0.3          | Dec-18         |
| HarbourVest Partners XI Buyout (\$35,000,000) | 6,579,452          |             | 0.4            | 0.0        | 2.4         | 8.3            | 8.3        | --         | --         | --         | 5.8           | Jan-19         |

Results for periods longer than one year are annualized.

Fiscal YTD ends June 30th.

Private Equity valuations are as of 03/31/2020 and cash adjusted to date with the exception of Louisiana Fund I which is valued as of 12/31/2019 and cash adjusted to date.



## Firefighters' Retirement System of Louisiana

# INVESTMENT PERFORMANCE FLASH REPORT

|  | Market Value<br>(\$) | Policy %   | % of<br>Portfolio | 1 Mo<br>(%) | YTD<br>(%) | Fiscal<br>YTD<br>(%) | 1 Yr<br>(%) | 3 Yrs<br>(%) | 5 Yrs<br>(%) | 10 Yrs<br>(%) | Inception<br>(%) | Inception<br>Date |
|--|----------------------|------------|-------------------|-------------|------------|----------------------|-------------|--------------|--------------|---------------|------------------|-------------------|
| <b>Real Estate Composite</b>             | <b>112,266,798</b>   | <b>6.0</b> | <b>6.4</b>        | <b>0.0</b>  | <b>0.8</b> | <b>2.5</b>           | <b>3.8</b>  | <b>5.0</b>   | <b>4.5</b>   | <b>5.2</b>    | <b>5.0</b>       | <b>Dec-09</b>     |
| <i>NCREIF Property Index 1 Qtr. Lag</i>  |                      |            |                   | 0.0         | 1.6        | 4.5                  | 6.4         | 6.7          | 8.2          | 10.2          | 9.1              | Dec-09            |
| Sentinel Real Estate Fund (\$30,000,000) | 38,000,350           |            | 2.2               | 0.0         | 1.4        | 5.4                  | 7.5         | 7.6          | 8.1          | 13.2          | 6.5              | Feb-06            |
| JP Morgan India (\$8,990,000)            | 1,108,014            |            | 0.1               | 0.0         | 0.0        | -43.5                | -43.5       | -26.7        | -18.7        | -9.7          | -15.9            | Apr-07            |
| Timbervest Crossover Fund (\$16,000,000) | 6,317,952            |            | 0.4               | 0.0         | -0.2       | 1.0                  | 2.2         | -2.7         | -4.2         | -1.1          | -1.2             | Apr-08            |
| AEW Partners VI LP (\$20,000,000)        | 257,056              |            | 0.0               | 0.0         | 15.6       | 73.6                 | 74.8        | 31.8         | 25.7         | 19.5          | 19.2             | Mar-10            |
| AEW Core Property (\$12,000,000)         | 16,860,294           |            | 1.0               | 0.0         | 0.8        | 3.6                  | 5.1         | 6.6          | 7.0          | --            | 6.9              | May-15            |
| FRS-GA (Georgia)                         | 3,463,043            |            | 0.2               | 0.0         | 0.0        | 0.0                  | 0.0         | -10.1        | -6.0         | -9.8          | -8.2             | Jun-08            |
| FRS-LB I (NLTP AZ)                       | 7,315,110            |            | 0.4               | 0.0         | 0.0        | -0.9                 | -0.9        | 17.9         | 11.3         | -10.3         | -10.7            | Jun-07            |
| FRS-LB III (ST George UT)                | 9,281,546            |            | 0.5               | 0.0         | 0.0        | -0.1                 | -0.1        | 0.0          | 3.4          | 1.2           | 2.5              | Jun-08            |
| ASB Real Estate Fund                     | 14,721,200           |            | 0.8               | 0.0         | 1.3        | 2.1                  | 4.2         | 5.5          | --           | --            | 4.8              | Jan-16            |
| Heitman America Real Estate Trust        | 14,942,233           |            | 0.8               | 0.0         | 0.0        | 2.1                  | 3.4         | 5.2          | --           | --            | 6.1              | Nov-15            |
| <b>Total Cash (\$9 MM)</b>               | <b>27,532,203</b>    | <b>--</b>  | <b>1.6</b>        | <b>0.0</b>  | <b>0.4</b> | <b>1.4</b>           | <b>1.6</b>  | <b>1.7</b>   | <b>1.1</b>   | <b>0.6</b>    | <b>2.7</b>       | <b>Jun-92</b>     |
| <i>91 Day T-Bills</i>                    |                      |            |                   | 0.0         | 0.4        | 1.3                  | 1.5         | 1.7          | 1.1          | 0.6           | 2.4              | Jun-92            |

Results for periods longer than one year are annualized.

Fiscal YTD ends June 30th.

FRS-GA, FRS-LB, and FRS-LB III are valued as of 09/30/2019 and cash adjusted to date. JP Morgan India is valued as of 12/31/2019 and cash adjusted to date. All other RE managers are valued as of 03/31/2020 and cash adjusted to date.

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



## Firefighters' Retirement System of Louisiana

# CURRENT MONTH CHANGE IN VALUE

### Total Cash Flow Summary

Month Ending May 31, 2020

|   | Beginning<br>Market Value | Contributions | Withdrawals   | Net Cash Flow | Fees       | Net Investment<br>Change | Ending<br>Market Value |
|---|---------------------------|---------------|---------------|---------------|------------|--------------------------|------------------------|
| Acadian Emerging Markets Equity               | \$53,545,540              | \$0           | \$0           | \$0           | \$0        | \$304,457                | \$53,849,997           |
| AEW Core Property (\$12,000,000)              | \$16,860,294              | \$0           | \$0           | \$0           | \$0        | \$0                      | \$16,860,294           |
| AEW Partners VI LP (\$20,000,000)             | \$257,056                 | \$0           | \$0           | \$0           | \$0        | \$0                      | \$257,056              |
| AQR Global Risk Premium – EL                  | \$70,325,139              | \$0           | \$0           | \$0           | -\$56,520  | \$1,068,022              | \$71,393,161           |
| ASB Real Estate Fund                          | \$14,680,736              | \$40,464      | \$0           | \$40,464      | \$0        | \$0                      | \$14,721,200           |
| Blackrock Global Allocation                   | \$87,785,052              | \$120,165     | \$0           | \$120,165     | -\$120,165 | \$3,168,450              | \$91,073,666           |
| Blackrock US Debt                             | \$368,102,098             | \$33,105      | \$0           | \$33,105      | -\$33,105  | \$1,718,884              | \$369,854,087          |
| Blackrock US TIPS Index                       | \$57,075,857              | \$6,993       | \$0           | \$6,993       | -\$6,993   | \$179,424                | \$57,262,274           |
| Boston Partners Global Equity                 | \$83,406,881              | \$0           | \$0           | \$0           | -\$39,330  | \$3,485,405              | \$86,892,286           |
| Cash/Clearing Account                         | \$45,526,201              | \$0           | -\$22,642,271 | -\$22,642,271 | \$0        | \$2,283                  | \$22,886,213           |
| CCMP Capital Investors III (\$15,000,000)     | \$14,043,395              | \$0           | \$0           | \$0           | \$0        | \$0                      | \$14,043,395           |
| DCM Private Equity II (\$7,500,000)           | \$983,305                 | \$0           | \$0           | \$0           | \$0        | \$0                      | \$983,305              |
| DTC Private Equity II-Q, L.P. (\$7,500,000)   | \$1,196,193               | \$0           | \$0           | \$0           | \$0        | \$0                      | \$1,196,193            |
| Energy Opportunities Fund                     | \$2,755                   | \$0           | \$0           | \$0           | \$0        | \$0                      | \$2,755                |
| Fisher All Foreign Equity                     | \$100,878,402             | \$0           | \$0           | \$0           | -\$132,323 | \$4,998,447              | \$105,876,849          |
| FRS-GA (Georgia)                              | \$3,463,043               | \$0           | \$0           | \$0           | \$0        | \$0                      | \$3,463,043            |
| FRS-LB I (NLTP AZ)                            | \$7,315,110               | \$0           | \$0           | \$0           | \$0        | \$0                      | \$7,315,110            |
| FRS-LB III (ST George UT)                     | \$9,281,546               | \$0           | \$0           | \$0           | \$0        | \$0                      | \$9,281,546            |
| GA Crossover Fund (\$25,000,000)              | \$3,484,182               | \$0           | \$0           | \$0           | \$0        | \$0                      | \$3,484,182            |
| Greenspring Associates III (\$9,230,000)      | \$408,792                 | \$0           | \$0           | \$0           | \$0        | \$0                      | \$408,792              |
| Harbourvest IV (\$20,000,000)                 | \$18,351,597              | \$0           | \$0           | \$0           | \$0        | \$0                      | \$18,351,597           |
| HarbourVest Partners XI Buyout (\$35,000,000) | \$6,579,452               | \$0           | \$0           | \$0           | \$0        | \$0                      | \$6,579,452            |
| Heitman America Real Estate Trust             | \$14,942,233              | \$0           | \$0           | \$0           | \$0        | \$0                      | \$14,942,233           |





## Firefighters' Retirement System of Louisiana

# CURRENT MONTH CHANGE IN VALUE

|  | Month Ending May 31, 2020 |                     |                      |                     |                   |                       | Ending Market Value    |
|--|---------------------------|---------------------|----------------------|---------------------|-------------------|-----------------------|------------------------|
|  | Beginning Market Value    | Contributions       | Withdrawals          | Net Cash Flow       | Fees              | Net Investment Change |                        |
| Invesco Oppenheimer Developing Markets     | \$28,286,669              | \$0                 | \$0                  | \$0                 | -\$20,592         | \$445,928             | \$28,732,596           |
| JP Morgan India (\$8,990,000)              | \$1,108,014               | \$0                 | \$0                  | \$0                 | \$0               | \$0                   | \$1,108,014            |
| Landmark Equity Partners XV (\$25,000,000) | \$9,530,483               | \$141,721           | \$0                  | \$141,721           | \$0               | \$0                   | \$9,672,204            |
| Liquidating - BlackRock Global Focused     | \$8,027                   | \$0                 | \$0                  | \$0                 | \$0               | \$15                  | \$8,042                |
| Louisiana Asset Management Pool            | \$4,643,194               | \$0                 | \$0                  | \$0                 | \$0               | \$2,796               | \$4,645,990            |
| Louisiana Fund I (\$1,000,000)             | \$1,432,178               | \$0                 | \$0                  | \$0                 | \$0               | \$0                   | \$1,432,178            |
| LSV International Equity Value             | \$90,826,440              | \$0                 | \$0                  | \$0                 | -\$140,360        | \$2,197,917           | \$93,024,356           |
| Mellon Stock Index Fund                    | \$288,267,233             | \$17,548            | \$0                  | \$17,548            | -\$17,548         | \$13,713,980          | \$301,998,761          |
| Mesirow (\$35,000,000)                     | \$17,471,866              | \$0                 | \$0                  | \$0                 | \$0               | \$0                   | \$17,471,866           |
| Murphree Venture (\$2,000,000)             | \$346,249                 | \$0                 | \$0                  | \$0                 | \$0               | \$0                   | \$346,249              |
| Orleans Core Fixed Income                  | \$98,362,756              | \$0                 | \$0                  | \$0                 | -\$31,272         | \$1,052,538           | \$99,415,294           |
| QMA SMID                                   | \$41,452,839              | \$0                 | \$0                  | \$0                 | -\$52,910         | \$2,395,930           | \$43,848,769           |
| Rothschild U.S. SMID Core                  | \$43,582,285              | \$0                 | \$0                  | \$0                 | -\$59,632         | \$3,303,559           | \$46,885,845           |
| Sentinel Real Estate Fund (\$30,000,000)   | \$38,000,350              | \$0                 | \$0                  | \$0                 | \$0               | \$0                   | \$38,000,350           |
| State Street ACWI Index Fund               | \$77,628,784              | \$0                 | \$0                  | \$0                 | -\$4,053          | \$3,430,489           | \$81,059,273           |
| Thornburg Global Opportunities             | \$287,290                 | \$0                 | \$0                  | \$0                 | \$0               | \$2,852               | \$290,142              |
| Timbervest Crossover Fund (\$16,000,000)   | \$6,317,952               | \$0                 | \$0                  | \$0                 | \$0               | \$0                   | \$6,317,952            |
| Wellington Opportunistic EMD               | \$0                       | \$20,000,000        | \$0                  | \$20,000,000        | \$0               | \$1,254,763           | \$21,254,763           |
| <b>Total</b>                               | <b>\$1,726,047,467</b>    | <b>\$20,359,997</b> | <b>-\$22,642,271</b> | <b>-\$2,282,274</b> | <b>-\$714,803</b> | <b>\$42,726,139</b>   | <b>\$1,766,491,332</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, 2020

|   | Beginning<br>Market Value | Contributions | Withdrawals    | Net Cash Flow | Fees       | Net Investment<br>Change | Ending<br>Market Value |
|---|---------------------------|---------------|----------------|---------------|------------|--------------------------|------------------------|
| Acadian Emerging Markets Equity               | \$61,087,956              | \$0           | \$0            | \$0           | -\$450,184 | -\$7,237,959             | \$53,849,997           |
| AEW Core Property (\$12,000,000)              | \$16,269,443              | \$0           | \$0            | \$0           | \$0        | \$590,851                | \$16,860,294           |
| AEW Partners VI LP (\$20,000,000)             | \$8,874,888               | \$0           | -\$10,488,429  | -\$10,488,429 | \$0        | \$1,870,597              | \$257,056              |
| AQR Global Risk Premium – EL                  | \$81,793,968              | \$0           | -\$9,000,000   | -\$9,000,000  | -\$701,680 | -\$1,400,806             | \$71,393,161           |
| ASB Real Estate Fund                          | \$14,375,136              | \$40,464      | \$0            | \$40,464      | \$0        | \$305,600                | \$14,721,200           |
| Blackrock Global Allocation                   | \$86,219,909              | \$120,165     | \$0            | \$120,165     | -\$120,165 | \$4,733,593              | \$91,073,666           |
| Blackrock US Debt                             | \$296,301,894             | \$80,033,105  | -\$36,000,000  | \$44,033,105  | -\$33,105  | \$29,519,088             | \$369,854,087          |
| Blackrock US TIPS Index                       | \$53,502,426              | \$6,993       | \$0            | \$6,993       | -\$6,993   | \$3,752,855              | \$57,262,274           |
| Boston Partners Global Equity                 | \$98,946,150              | \$0           | -\$400,867     | -\$400,867    | -\$470,415 | -\$11,652,997            | \$86,892,286           |
| Cash/Clearing Account                         | \$10,592,120              | \$258,685,677 | -\$246,602,220 | \$12,083,458  | \$0        | \$210,635                | \$22,886,213           |
| CCMP Capital Investors III (\$15,000,000)     | \$15,762,009              | \$46,091      | -\$3,134,513   | -\$3,088,422  | \$0        | \$1,369,808              | \$14,043,395           |
| DCM Private Equity II (\$7,500,000)           | \$1,190,696               | \$0           | -\$112,979     | -\$112,979    | \$0        | -\$94,412                | \$983,305              |
| DTC Private Equity II-Q, L.P. (\$7,500,000)   | \$1,311,002               | \$0           | -\$150,000     | -\$150,000    | \$0        | \$35,191                 | \$1,196,193            |
| Energy Opportunities Fund                     | \$33                      | \$0           | \$0            | \$0           | \$0        | \$2,722                  | \$2,755                |
| FECP II (\$20,000,000)                        | \$197,102                 | \$0           | -\$343,001     | -\$343,001    | \$0        | \$145,899                | --                     |
| Fisher All Foreign Equity                     | \$108,054,069             | \$4,000,000   | -\$630         | \$3,999,370   | -\$610,170 | -\$6,176,591             | \$105,876,849          |
| FRS-GA (Georgia)                              | \$3,463,900               | \$0           | \$0            | \$0           | \$0        | -\$857                   | \$3,463,043            |
| FRS-LB I (NLTP AZ)                            | \$7,380,981               | \$0           | \$0            | \$0           | \$0        | -\$65,871                | \$7,315,110            |
| FRS-LB III (ST George UT)                     | \$9,288,030               | \$0           | \$0            | \$0           | \$0        | -\$6,484                 | \$9,281,546            |
| GA Crossover Fund (\$25,000,000)              | \$4,408,965               | \$0           | -\$1,000,000   | -\$1,000,000  | \$0        | \$75,217                 | \$3,484,182            |
| Greenspring Associates III (\$9,230,000)      | \$3,098,632               | \$0           | -\$2,104,440   | -\$2,104,440  | \$0        | -\$585,400               | \$408,792              |
| Harbourvest IV (\$20,000,000)                 | \$17,901,972              | \$0           | -\$1,540,000   | -\$1,540,000  | \$0        | \$1,989,625              | \$18,351,597           |
| HarbourVest Partners XI Buyout (\$35,000,000) | \$154,001                 | \$6,169,321   | \$0            | \$6,169,321   | \$0        | \$256,130                | \$6,579,452            |



## Firefighters' Retirement System of Louisiana

# CURRENT FYTD CHANGE IN VALUE

|  | Fiscal YTD Ending May 31, 2020 |                      |                       |                    |                     |                       |                        |
|--|--------------------------------|----------------------|-----------------------|--------------------|---------------------|-----------------------|------------------------|
|  | Beginning Market Value         | Contributions        | Withdrawals           | Net Cash Flow      | Fees                | Net Investment Change | Ending Market Value    |
| Heitman America Real Estate Trust          | \$14,962,989                   | \$0                  | -\$320,339            | -\$320,339         | \$0                 | \$299,583             | \$14,942,233           |
| Invesco Oppenheimer Developing Markets     | \$31,465,066                   | \$0                  | \$0                   | \$0                | -\$240,550          | -\$2,732,469          | \$28,732,596           |
| JP Morgan India (\$8,990,000)              | \$1,962,601                    | \$0                  | \$0                   | \$0                | \$0                 | -\$854,587            | \$1,108,014            |
| Landmark Equity Partners XV (\$25,000,000) | \$9,208,194                    | \$1,148,711          | -\$1,276,519          | -\$127,808         | \$0                 | \$591,818             | \$9,672,204            |
| Liquidating - BlackRock Global Focused     | \$8,142                        | \$0                  | \$0                   | \$0                | \$0                 | -\$101                | \$8,042                |
| Louisiana Asset Management Pool            | \$4,574,500                    | \$0                  | \$0                   | \$0                | \$0                 | \$71,490              | \$4,645,990            |
| Louisiana Fund I (\$1,000,000)             | \$1,435,336                    | \$0                  | \$0                   | \$0                | \$0                 | -\$3,158              | \$1,432,178            |
| LSV International Equity Value             | \$103,194,258                  | \$4,000,000          | -\$1,470              | \$3,998,530        | -\$684,569          | -\$14,168,432         | \$93,024,356           |
| Mellon Stock Index Fund                    | \$290,644,592                  | \$5,055,700          | -\$11,000,000         | -\$5,944,300       | -\$96,905           | \$17,298,468          | \$301,998,761          |
| Mesirow (\$35,000,000)                     | \$8,397,499                    | \$8,575,000          | \$0                   | \$8,575,000        | \$0                 | \$499,367             | \$17,471,866           |
| Murphree Venture (\$2,000,000)             | \$700,593                      | \$0                  | \$0                   | \$0                | \$0                 | -\$354,344            | \$346,249              |
| Orleans Core Fixed Income                  | \$93,124,492                   | \$0                  | \$0                   | \$0                | -\$92,243           | \$6,290,803           | \$99,415,294           |
| QMA SMID                                   | \$44,604,801                   | \$5,000,000          | \$0                   | \$5,000,000        | -\$231,140          | -\$5,756,032          | \$43,848,769           |
| Rothschild U.S. SMID Core                  | \$45,743,366                   | \$5,000,000          | \$0                   | \$5,000,000        | -\$302,455          | -\$3,857,522          | \$46,885,845           |
| Sentinel Real Estate Fund (\$30,000,000)   | \$37,587,805                   | \$0                  | -\$1,572,645          | -\$1,572,645       | \$0                 | \$1,985,189           | \$38,000,350           |
| State Street ACWI Index Fund               | --                             | \$79,000,000         | \$0                   | \$79,000,000       | -\$18,210           | \$2,059,273           | \$81,059,273           |
| Thornburg Global Opportunities             | \$60,232,986                   | \$0                  | -\$63,863,771         | -\$63,863,771      | -\$149,003          | \$3,920,927           | \$290,142              |
| Timbervest Crossover Fund (\$16,000,000)   | \$6,661,868                    | \$0                  | -\$416,000            | -\$416,000         | \$0                 | \$72,084              | \$6,317,952            |
| Wellington Opportunistic EMD               | --                             | \$20,000,000         | \$0                   | \$20,000,000       | \$0                 | \$1,254,763           | \$21,254,763           |
| Z TERMINATED - Stone Harbor                | \$79,483,138                   | \$0                  | -\$81,027,382         | -\$81,027,382      | \$0                 | \$1,544,244           | --                     |
| <b>Total</b>                               | <b>\$1,734,167,508</b>         | <b>\$476,881,228</b> | <b>-\$470,355,203</b> | <b>\$6,526,025</b> | <b>-\$4,207,786</b> | <b>\$25,797,798</b>   | <b>\$1,766,491,332</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<br>Market Value | Contributions   | Ending May 31, 2020 |               | Net Investment<br>Change | Ending<br>Market Value |
|---|---------------------------|-----------------|---------------------|---------------|--------------------------|------------------------|
|   |                           |                 | Withdrawals         | Net Cash Flow |                          |                        |
| Acadian Emerging Markets Equity             | --                        | \$65,000,000    | -\$10,000,000       | \$55,000,000  | -\$1,150,003             | \$53,849,997           |
| AEW Core Property (\$12,000,000)            | --                        | \$12,000,000    | \$0                 | \$12,000,000  | \$4,860,294              | \$16,860,294           |
| AEW Partners VI LP (\$20,000,000)           | --                        | \$18,420,450    | -\$34,539,873       | -\$16,119,423 | \$16,376,479             | \$257,056              |
| AQR Global Risk Premium – EL                | --                        | \$101,500,000   | -\$39,700,000       | \$61,800,000  | \$9,593,161              | \$71,393,161           |
| ASB Real Estate Fund                        | --                        | \$12,256,743    | -\$141,910          | \$12,114,834  | \$2,606,367              | \$14,721,200           |
| Blackrock Global Allocation                 | --                        | \$68,802,555    | \$0                 | \$68,802,555  | \$22,271,111             | \$91,073,666           |
| Blackrock US Debt                           | --                        | \$407,569,625   | -\$94,500,000       | \$313,069,625 | \$56,784,461             | \$369,854,087          |
| Blackrock US TIPS Index                     | --                        | \$50,023,027    | -\$4,805            | \$50,018,222  | \$7,244,052              | \$57,262,274           |
| Boston Partners Global Equity               | --                        | \$80,939,406    | -\$1,731,015        | \$79,208,390  | \$7,683,896              | \$86,892,286           |
| Cash/Clearing Account                       | --                        | \$2,668,085,628 | -\$2,649,065,152    | \$19,020,476  | \$3,865,737              | \$22,886,213           |
| CCMP Capital Investors III (\$15,000,000)   | --                        | \$13,421,953    | -\$4,742,087        | \$8,679,866   | \$5,363,529              | \$14,043,395           |
| DCM Private Equity II (\$7,500,000)         | --                        | \$8,232,280     | -\$7,421,096        | \$811,184     | \$172,121                | \$983,305              |
| DTC Private Equity II-Q, L.P. (\$7,500,000) | --                        | \$5,480,845     | -\$8,437,500        | -\$2,956,655  | \$4,152,848              | \$1,196,193            |
| Energy Opportunities Fund                   | --                        | \$50,039,277    | -\$44,450,083       | \$5,589,194   | -\$5,586,439             | \$2,755                |
| FECP II (\$20,000,000)                      | --                        | \$19,188,998    | -\$22,645,363       | -\$3,456,365  | \$3,456,365              | --                     |
| Fisher All Foreign Equity                   | --                        | \$121,180,807   | -\$80,308,187       | \$40,872,620  | \$65,004,229             | \$105,876,849          |
| FRS-GA (Georgia)                            | --                        | \$9,416,075     | \$0                 | \$9,416,075   | -\$5,953,032             | \$3,463,043            |
| FRS-LB I (NLTP AZ)                          | --                        | \$24,900,208    | \$0                 | \$24,900,208  | -\$17,585,098            | \$7,315,110            |
| FRS-LB III (ST George UT)                   | --                        | \$6,878,923     | \$0                 | \$6,878,923   | \$2,402,623              | \$9,281,546            |
| GA Crossover Fund (\$25,000,000)            | --                        | \$25,000,000    | -\$47,276,687       | -\$22,276,687 | \$25,760,869             | \$3,484,182            |
| Greenspring Associates III (\$9,230,000)    | --                        | \$8,491,600     | -\$15,216,208       | -\$6,724,608  | \$7,133,400              | \$408,792              |
| Harbourvest IV (\$20,000,000)               | --                        | \$17,325,303    | -\$4,447,769        | \$12,877,534  | \$5,474,063              | \$18,351,597           |

Cash flow statistics exclude management fees and expenses.



## Firefighters' Retirement System of Louisiana

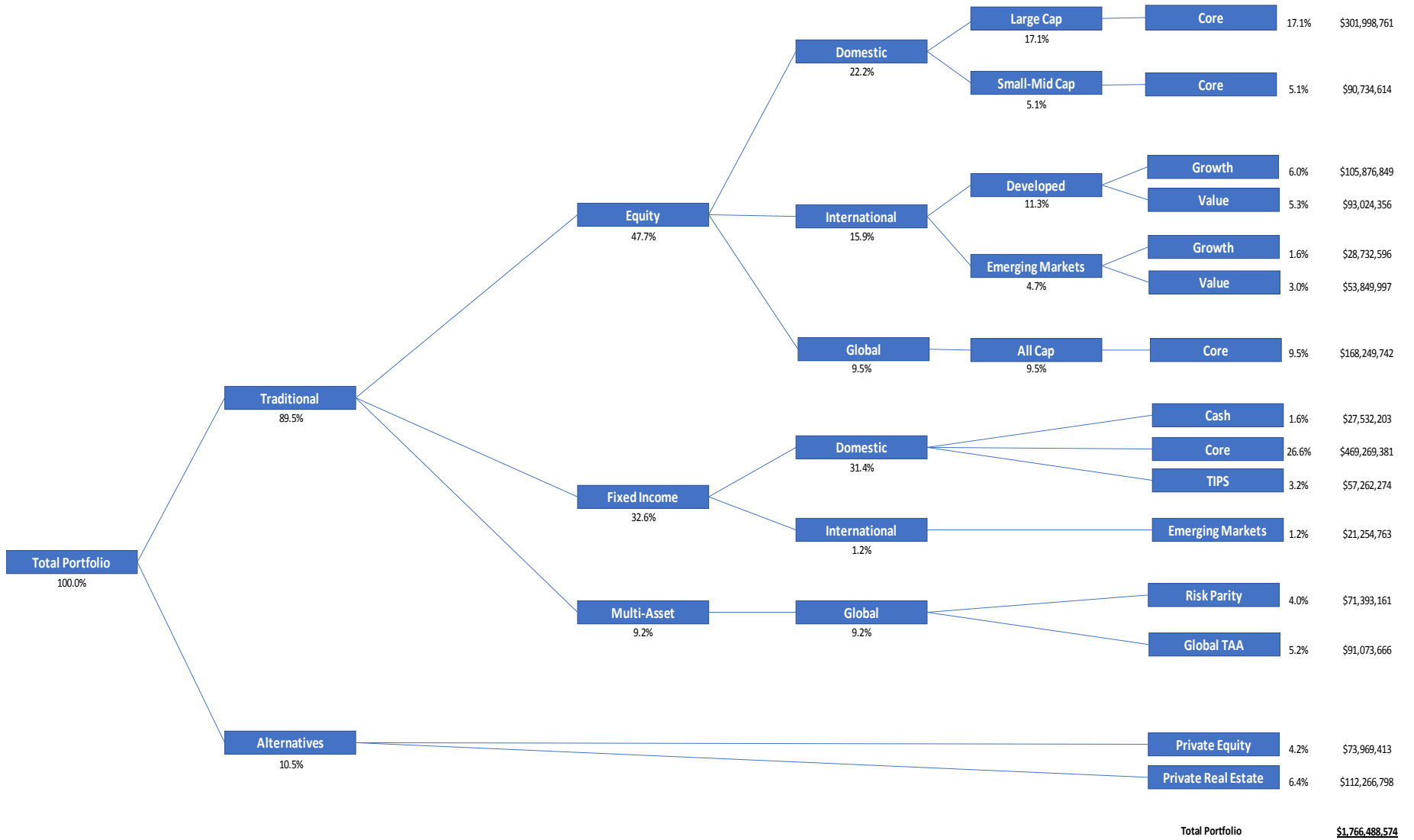
# SINCE INCEPTION CHANGE IN VALUE

|   | Ending May 31, 2020    |               |                |               |                       | Ending Market Value |
|---|------------------------|---------------|----------------|---------------|-----------------------|---------------------|
|   | Beginning Market Value | Contributions | Withdrawals    | Net Cash Flow | Net Investment Change |                     |
| HarbourVest Partners XI Buyout (\$35,000,000) | --                     | \$6,169,321   | \$0            | \$6,169,321   | \$410,131             | \$6,579,452         |
| Heitman America Real Estate Trust             | --                     | \$12,000,000  | -\$320,339     | \$11,679,661  | \$3,262,572           | \$14,942,233        |
| Invesco Oppenheimer Developing Markets        | --                     | \$37,500,000  | -\$11,500,000  | \$26,000,000  | \$2,732,596           | \$28,732,596        |
| JP Morgan India (\$8,990,000)                 | --                     | \$8,307,355   | -\$3,814,303   | \$4,493,052   | -\$3,385,038          | \$1,108,014         |
| Landmark Equity Partners XV (\$25,000,000)    | --                     | \$18,945,886  | -\$14,267,592  | \$4,678,294   | \$4,993,910           | \$9,672,204         |
| Liquidating - BlackRock Global Focused        | --                     | \$46,832,890  | -\$59,572,953  | -\$12,740,063 | \$12,748,105          | \$8,042             |
| Louisiana Asset Management Pool               | --                     | \$943,990,965 | -\$944,296,689 | -\$305,724    | \$4,951,714           | \$4,645,990         |
| Louisiana Fund I (\$1,000,000)                | --                     | \$1,010,000   | \$0            | \$1,010,000   | \$422,178             | \$1,432,178         |
| LSV International Equity Value                | --                     | \$107,818,122 | -\$42,314,883  | \$65,503,239  | \$27,521,117          | \$93,024,356        |
| Mellon Stock Index Fund                       | --                     | \$280,531,523 | -\$175,500,001 | \$105,031,522 | \$196,967,239         | \$301,998,761       |
| Mesirow (\$35,000,000)                        | --                     | \$17,253,620  | \$0            | \$17,253,620  | \$218,246             | \$17,471,866        |
| Murphree Venture (\$2,000,000)                | --                     | \$2,058,578   | -\$848,459     | \$1,210,119   | -\$863,870            | \$346,249           |
| Orleans Core Fixed Income                     | \$0                    | \$146,099,081 | -\$91,022,995  | \$55,076,086  | \$44,339,208          | \$99,415,294        |
| QMA SMID                                      | --                     | \$51,715,738  | \$0            | \$51,715,738  | -\$7,866,969          | \$43,848,769        |
| Rothschild U.S. SMID Core                     | --                     | \$60,500,000  | -\$27,500,000  | \$33,000,000  | \$13,885,845          | \$46,885,845        |
| Sentinel Real Estate Fund (\$30,000,000)      | --                     | \$30,000,000  | -\$19,541,086  | \$10,458,914  | \$27,541,435          | \$38,000,350        |
| State Street ACWI Index Fund                  | --                     | \$79,000,000  | \$0            | \$79,000,000  | \$2,059,273           | \$81,059,273        |
| Thornburg Global Opportunities                | --                     | \$47,500,000  | -\$134,170,030 | -\$86,670,030 | \$86,960,172          | \$290,142           |
| Timbervest Crossover Fund (\$16,000,000)      | --                     | \$13,600,000  | -\$8,679,895   | \$4,920,105   | \$1,397,847           | \$6,317,952         |
| Wellington Opportunistic EMD                  | --                     | \$20,000,000  | \$0            | \$20,000,000  | \$1,254,763           | \$21,254,763        |

Cash flow statistics exclude management fees and expenses.



# ASSET ALLOCATION DECISION TREE



### **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.
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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.

