



1Q 2024 QUARTERLY PERFORMANCE REPORT EXECUTIVE SUMMARY



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TOTAL FUND PERFORMANCE SUMMARY – NET RETURNS AS OF MARCH 31, 2024

COMPARED TO TRUST FUND BENCHMARK

| | Market Value (\$) | 1 Yr (%) | 5 Yrs (%) |
|-------------------------|----------------------|-------------|--------------|
| Total Fund, Net of Fees | 40,486,272,481 | 11.62 | 7.19 |
| Trust Fund Benchmark | | 10.06 | 5.47 |
| Over/Under | | 1.56 | 1.72 |

- For the one-year period ended March 31, 2024, the Trust Fund returned 11.62%, exceeding the Trust Fund Benchmark by 1.56%.
 - Global Equity, Core Fixed Income, Non-Core Fixed Income (Public), Hedge Funds, Cash, Private Debt, and Real Estate exceeded their respective benchmarks, while Private Equity, Infrastructure, and Other Private Markets trailed.
- For the five-year period ended March 31, 2024, the Trust Fund returned 7.19%, exceeding the Trust Fund Benchmark by 1.72%.
 - Core Fixed Income, Non-Core Fixed Income (Public), Hedge Funds, Cash, Private Equity,
 Private Debt, Real Estate, Infrastructure, and Other Private Markets exceeded their respective benchmarks, while Global Equity trailed.



TOTAL FUND PERFORMANCE SUMMARY – NET RETURNS AS OF MARCH 31, 2024

COMPARED TO OTHER PUBLIC PENSION PLANS GREATER THAN \$10 BILLION IN ASSETS

| | 1 Yr (%) | Quartile Rank | 5 Yrs (%) | Quartile Rank |
|--|-------------|-----------------|--------------|-----------------|
| Total Fund, Net of Fees | 11.62 | 2 nd | 7.19 | 4 th |
| Trust Fund Benchmark | 10.06 | 3 rd | 5.47 | 4 th |
| InvMetrics Public DB > \$10 Billion Median | 10.59 | | 7.73 | |

- For the one-year period ended March 31, 2024, the Trust Fund returned 11.62% and ranked in the second quartile among other Public Defined Benefit Plans greater than \$10 billion in assets.
- For the five-year period ended March 31, 2024, the Trust Fund returned 7.19% and ranked in the fourth quartile among other Public Defined Benefit Plans greater than \$10 billion in assets.



TOTAL FUND PERFORMANCE AS OF **MARCH 31, 2024**

VERSUS TRUST FUND BENCHMARK AND ASSUMED RATE OF RETURN

- The Trust Fund performance expectation is to exceed the Trust Fund Benchmark over rolling five-year periods.
- In the five-year period ended March 31, 2024, the Trust Fund's net return of 7.19% outperformed the Trust Fund Benchmark by 1.72%. It also exceeded the **Board's Assumed Long-Term Rate of Return of 6.75%.**

Rolling 5-Year Total Fund Performance vs. Trust Fund Benchmark vs. **Historical Actuarial Rate of Return**





ASSET ALLOCATION COMPLIANCE AS OF MARCH 31, 2024

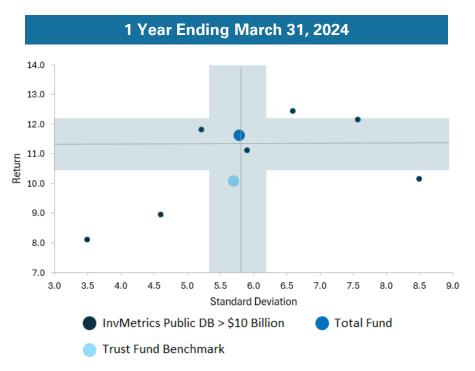
ACTUAL ASSET ALLOCATION VS. INVESTMENT POLICY ALLOCATION

| | Current (\$) | Current (%) | Policy (%) | Differences* (%) | Policy Range (%) | Within Range |
|-------------------------|-----------------|----------------|---------------|---------------------|---------------------|-----------------|
| ■ Global Equity | 15,324,370,219 | 37.9 | 35.0 | 2.9 | 25.0 - 45.0 | Yes |
| Core Fixed Income | 2,311,879,428 | 5.7 | 6.0 | -0.3 | 1.0 - 11.0 | Yes |
| Non-Core Fixed Income | 2,836,730,886 | 7.0 | 6.0 | 1.0 | 1.0 - 11.0 | Yes |
| Hedge Funds | 1,945,626,353 | 4.8 | 5.0 | -0.2 | 0.0 - 10.0 | Yes |
| Cash Composite | 250,446,560 | 0.6 | 0.0 | 0.6 | 0.0 - 3.0 | Yes |
| Private Equity | 4,660,256,237 | 11.5 | 13.0 | -1.5 | 8.0 - 18.0 | Yes |
| ■ Private Debt | 4,790,920,711 | 11.8 | 13.0 | -1.2 | 8.0 - 18.0 | Yes |
| ■ Real Estate | 4,638,762,907 | 11.5 | 12.0 | -0.5 | 7.0 - 17.0 | Yes |
| ■ Infrastructure | 2,195,338,117 | 5.4 | 6.0 | -0.6 | 1.0 - 11.0 | Yes |
| ■ Other Private Markets | 1,531,941,063 | 3.8 | 4.0 | -0.2 | 0.0 - 9.0 | Yes |
| Total Fund | 40,486,272,481 | 100.0 | 100.0 | 0.0 | | |

 Actual asset class allocations are in compliance with Investment Policy ranges as of March 31, 2024.



TOTAL FUND RISK VS. NET RETURN: ONE YEAR AS OF MARCH 31, 2024



The Trust Fund generated a second quartile net investment return with lower risk, as measured by standard deviation, among other Public Defined Benefit Plans with more than \$10 billion in assets for the 1-year period ended March 31, 2024.

| 1 Year Ending March 31, 2024 | | | | | | | | | | |
|--|------|------------------|--------|------------------|-----------------|------------------|--|--|--|--|
| | Risk | Quartile Rank | Return | Quartile Rank | Sharpe Ratio | Quartile Rank | | | | |
| Total Fund | 5.79 | 2 nd | 11.62 | 2 nd | 1.05 | 1 st | | | | |
| Trust Fund Benchmark | 5.70 | 2 nd | 10.06 | 3 rd | 0.82 | 3 rd | | | | |
| InvMetrics Public DB > \$10 Billion Median | 6.27 | | 10.59 | | 0.84 | | | | | |

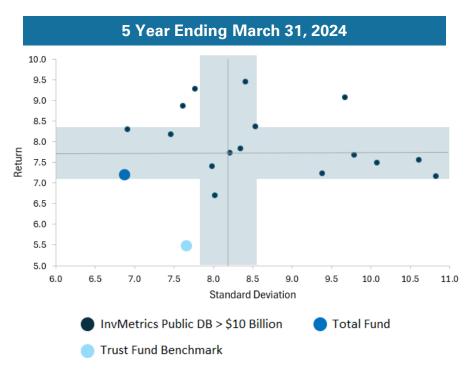


InvMetrics Public DB > \$10B Median includes 18 observations.



⁻ The scatterplot for the one-year period displays NEPC clients only.

TOTAL FUND RISK VS. NET RETURN: FIVE YEARS AS OF MARCH 31, 2024



The Trust Fund underperformed in its peer universe due to having the least amount of risk as measured by standard deviation in the 5-year period, among other Public Defined Benefit Plans with more than \$10 billion in assets.

| 5 Year Ending March 31, 2024 | | | | | | | | | | |
|--|------|------------------|--------|------------------|-----------------|------------------|--|--|--|--|
| | Risk | Quartile Rank | Return | Quartile Rank | Sharpe Ratio | Quartile Rank | | | | |
| Total Fund | 6.88 | 1 st | 7.19 | 4 th | 0.75 | 2 nd | | | | |
| Trust Fund Benchmark | 7.66 | 1 st | 5.47 | 4 th | 0.47 | 4 th | | | | |
| InvMetrics Public DB > \$10 Billion Median | 8.28 | | 7.73 | | 0.71 | | | | | |



- The Standard Deviation interquartile range is defined as the lowest Standard Deviation measuring in the first quartile.
- InvMetrics Public DB > \$10B Median includes 17 observations.

Texas Municipal Retirement System

PERFORMANCE DETAIL AS OF MARCH 31, 2024

| | Allocatio | | Performance (%) | | | | | | | |
|--------------------------------------|----------------------|----------------|-----------------|--------------|--------------|--------------|--------------|---------------|------------------|-------------------|
| | Market Value (\$) | % of Portfolio | 3 Mo (%) | 1 Yr (%) | 3 Yrs (%) | 5 Yrs (%) | 7 Yrs (%) | 10 Yrs (%) | Inception (%) | Inception Date |
| Total Fund | 40,486,272,481 | 100.0 | 3.67 | 11.62 | 6.05 | 7.19 | 6.99 | 6.38 | 8.22 | Jan-89 |
| Trust Fund Benchmark | | | <u>3.66</u> | <u>10.06</u> | <u>3.07</u> | <u>5.47</u> | <u>5.67</u> | <u>5.37</u> | <u>7.51</u> | |
| Over/Under | | | 0.01 | 1.56 | 2.98 | 1.72 | 1.32 | 1.01 | 0.71 | |
| Global Equity | 15,324,370,219 | 37.9 | 7.95 | 22.77 | 6.15 | 10.02 | 9.50 | 8.45 | 6.60 | Jan-08 |
| Total Equity Index | | | <u>7.72</u> | <u>22.45</u> | <u>6.31</u> | <u>10.57</u> | <u>9.99</u> | <u>8.77</u> | <u>6.75</u> | |
| Over/Under | | | 0.23 | 0.32 | -0.16 | -0.55 | -0.49 | -0.32 | -0.15 | |
| Core Fixed Income | 2,311,879,428 | 5.7 | -0.79 | 1.88 | -2.33 | 0.60 | 1.32 | 1.75 | 6.46 | Jan-89 |
| Core Fixed Income Benchmark | | | <u>-0.78</u> | <u>1.70</u> | <u>-2.46</u> | <u>0.36</u> | <u>1.06</u> | <u>1.54</u> | <u>5.98</u> | |
| Over/Under | | | -0.01 | 0.18 | 0.13 | 0.24 | 0.26 | 0.21 | 0.48 | |
| Non-Core Fixed Income | 2,836,730,886 | 7.0 | 2.97 | 10.72 | 1.48 | 3.09 | 3.50 | | 3.57 | Jan-15 |
| Non-Core Fixed Income (Public) Index | | | <u>2.70</u> | <u>4.33</u> | <u>-1.13</u> | <u>1.48</u> | <u>2.28</u> | | <u>2.37</u> | |
| Over/Under | | | 0.27 | 6.39 | 2.61 | 1.61 | 1.22 | | 1.20 | |
| Hedge Funds | 1,945,626,353 | 4.8 | 6.17 | 11.69 | 5.34 | 6.11 | 5.96 | | 5.11 | Aug-14 |
| Hedge Funds Benchmark | | | <u>3.85</u> | <u>5.75</u> | <u>3.84</u> | <u>5.61</u> | <u>4.74</u> | | <u>3.76</u> | |
| Over/Under | | | 2.32 | 5.94 | 1.50 | 0.50 | 1.22 | | 1.35 | |
| Cash Composite | 250,446,560 | 0.6 | 1.34 | 5.47 | 2.87 | 2.15 | 1.94 | 1.53 | 1.05 | Jun-08 |
| FTSE 1 Month US T-Bill index | | | <u>1.36</u> | <u>5.40</u> | <u>2.65</u> | <u>2.00</u> | <u>1.87</u> | <u>1.34</u> | <u>0.91</u> | |
| Over/Under | | | -0.02 | 0.07 | 0.22 | 0.15 | 0.07 | 0.19 | 0.14 | |



Texas Municipal Retirement System

PERFORMANCE DETAIL AS OF MARCH 31, 2024

| | Allocatio | n | | | Performance (%) | | | | | |
|-----------------------------|----------------------|----------------|--------------|---------------|-----------------|--------------|--------------|---------------|------------------|-------------------|
| | Market Value (\$) | % of Portfolio | 3 Mo (%) | 1 Yr (%) | 3 Yrs (%) | 5 Yrs (%) | 7 Yrs (%) | 10 Yrs (%) | Inception (%) | Inception Date |
| Private Equity | 4,660,256,237 | 11.5 | 2.58 | 7.01 | 15.38 | 17.45 | 17.71 | | 15.27 | Dec-15 |
| Private Equity Index | | | <u>2.38</u> | <u>12.00</u> | <u>4.62</u> | <u>10.75</u> | <u>12.87</u> | | <u>11.28</u> | |
| Over/Under | | | 0.20 | -4.99 | 10.76 | 6.70 | 4.84 | | 3.99 | |
| Private Debt | 4,790,920,711 | 11.8 | 1.89 | 10.85 | 7.64 | 7.22 | 6.95 | | 6.88 | Apr-16 |
| Private Debt Index | | | <u>2.37</u> | <u>4.01</u> | <u>-1.23</u> | <u>1.41</u> | <u>2.24</u> | | <u>2.86</u> | |
| Over/Under | | | -0.48 | 6.84 | 8.87 | 5.81 | 4.71 | | 4.02 | |
| Real Estate | 4,638,762,907 | 11.5 | -4.22 | -7.67 | 8.09 | 6.05 | 7.23 | 8.87 | 8.99 | Nov-11 |
| Real Estate Benchmark | | | <u>-5.00</u> | <u>-12.73</u> | <u>4.09</u> | <u>3.75</u> | <u>4.94</u> | <u>7.03</u> | <u>8.19</u> | |
| Over/Under | | | 0.78 | 5.06 | 4.00 | 2.30 | 2.29 | 1.84 | 0.80 | |
| Infrastructure | 2,195,338,117 | 5.4 | 5.55 | 11.24 | 11.43 | 10.95 | 9.74 | | 9.31 | Feb-16 |
| Infrastructure Index | | | <u>3.49</u> | <u>12.81</u> | <u>2.11</u> | <u>3.30</u> | <u>3.77</u> | | <u>4.25</u> | |
| Over/Under | | | 2.06 | -1.57 | 9.32 | 7.65 | 5.97 | | 5.06 | |
| Other Private Markets | 1,531,941,063 | 3.8 | -0.18 | 12.08 | 4.74 | 5.33 | 5.22 | 3.98 | 4.08 | Mar-11 |
| Other Private Markets Index | | | <u>11.14</u> | <u>21.15</u> | <u>4.56</u> | <u>4.78</u> | <u>4.83</u> | <u>3.94</u> | <u>3.95</u> | |
| Over/Under | | | -11.32 | -9.07 | 0.18 | 0.55 | 0.39 | 0.04 | 0.13 | |



Texas Municipal Retirement System

COMPOSITE BENCHMARK DEFINITIONS AS OF MARCH 31, 2024

The Trust Fund Benchmark represents the Actual Allocation Benchmark through 12/31/2023, and is based on the Strategic Target Allocation weights as of 1/1/2024, which is currently as follows:

- 35.0% Total Equity Benchmark
- 6.0% Core Fixed Income Benchmark
- 6.0% Non-Core Fixed Income Benchmark
- 5.0% Hedge Funds Benchmark
- 13.0% Private Equity Benchmark
- 12.0% Real Estate Benchmark
- 6.0% Infrastructure Benchmark
- 4.0% Other Private Markets Benchmark
- 13.0% Private Debt Benchmark

The Actual Allocation Benchmark was calculated monthly using the beginning of the month asset class weights applied to each corresponding benchmark return.

Asset Class Composite Benchmarks:

The Total Equity Benchmark is calculated monthly and consists of 50% Russell 3000 Index and 50% MSCI EAFE Index (USD) (Net) through 07/31/2010; a blend of the Russell 3000 Index, MSCI ACW Ex US IM Index (USD) (Net) and MSCI EAFE Index (USD) (Net) at beginning of month investment weights through 11/30/2012; and a blend of the Russell 3000 Index and MSCI ACW Ex US IM Index (USD) (Net) at beginning of the month weights through 12/31/2018; and MSCI ACW IM Index (USD) (Net) thereafter.

The Core Fixed Income Benchmark is calculated monthly and consists of the Bloomberg US Gov't Crdt Lng Trm Bond Index through 06/30/2009; Bloomberg US Agg Bond Index thereafter.

The Non-Core Fixed Income Benchmark is calculated using the beginning of the month sub-asset class weights within the Non-Core Fixed Income Composite applied to each sub-asset class primary benchmark return through 6/30/2021, the Bloomberg US Agg Bond Index + 1.5% on an unlagged, month lagged, or quarter lagged basis in proportion of the managers in the composite on an unlagged, month lagged, or quarter lagged basis through 12/31/2023, and consists of 50% CS Leveraged Loan Index and 50% ICE BofA U.S. High Yield Constrained Index on an unlagged, month lagged, or quarter lagged basis in proportion of the managers in the composite on an unlagged, month lagged, or quarter lagged basis thereafter.

The Hedge Funds Benchmark is calculated monthly and consists of the HFRI FOF: Dvf'd Index (1 Mo Lag) through 6/30/2021, and HFRI Asset Weighted Composite Index (1 Mo Lag) thereafter.

The Private Equity Benchmark is set equal to the Composite return through 6/30/2021, the MSCI ACW IM Index (USD) (Net), one quarter lag through 12/31/2023, and the Cambridge US PE and Venture Capital, one quarter lag thereafter.

The Real Estate Benchmark is the NCREIF ODCE Index (Gross), one quarter lag through 06/30/2021, and NCREIF ODCE Index (Net), one quarter lag thereafter.

The Infrastructure Benchmark consists of the Cambridge Infrastructure Fund Index on an unlagged, month lagged, or quarter lagged basis in proportion of the managers in the composite on an unlagged, month lagged, or quarter lagged basis thereafter.

The Other Private Markets Benchmark consists of the MSCI ACW IM Index (USD)(Net) on an unlagged, month lagged, or quarter lagged basis in proportion of the managers in the composite on an unlagged, month lagged, or quarter lagged basis thereafter.

The Private Debt Benchmark consists of the Credit Suisse Leveraged Loan Index + 100bps on an unlagged, month lagged, or quarter lagged basis in proportion of the managers in the composite on an unlagged, month lagged, or quarter lagged basis thereafter.

