



# Dallas Police & Fire Pension System

June 30, 2022

Fund Evaluation Report



## Dallas Police & Fire Pension System

### Agenda

## Agenda

1. Executive Summary
2. Performance Update as of June 30, 2022
3. Disclaimer, Glossary, and Notes

## **Executive Summary As of June 30, 2022**



## Dallas Police & Fire Pension System

### Executive Summary

#### DPFP Trailing One-Year Flash Summary

Category	Results	Notes
Total Fund Performance Return	Negative	-11.4%
Performance vs. Policy Index	Underperformed	-11.4% vs. -10.5%
Performance vs. Peers <sup>1</sup>	Underperformed	-11.4% vs. -9.6% median (84th percentile in peer group)
Asset Allocation vs. Targets	Positive	Overweight private markets helped, underweight global equity helped
Public Active Management	Trailed	4 of 10 active public managers beat benchmarks
DPFP Public Markets vs. 60/40 <sup>2</sup>	Outperformed	-14.3% vs. -15.9%
DPFP Public Markets vs. Peers	Underperformed	-14.3% vs. -9.6%
Safety Reserve Exposure	Sufficient	\$139.2 million (approximately 8.1%)
Compliance with Targets	Yes	All asset classes in compliance

<sup>1</sup> InvestorForce Public DB \$1-5 billion net.

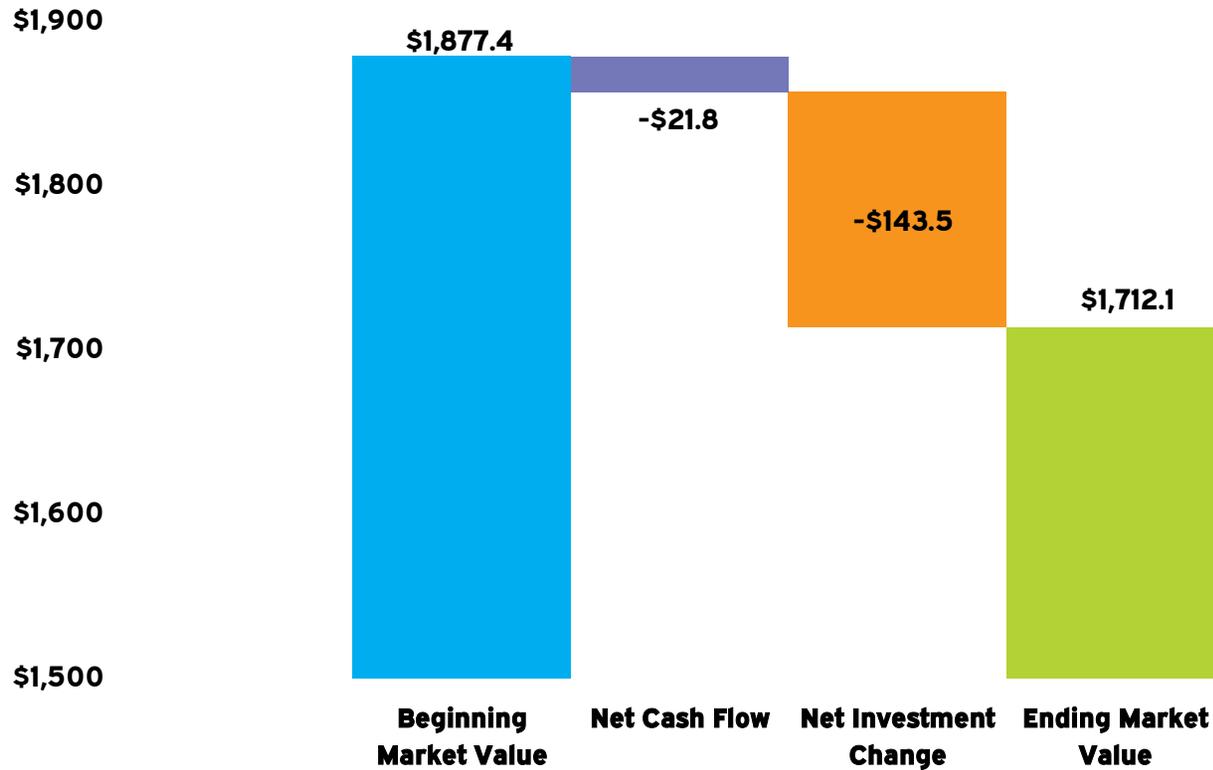
<sup>2</sup> Performance of Total Fund excluding private market investments relative to a 60% MSCI ACWI IMI Net/40% Barclays Global Aggregate Index.



Dallas Police & Fire Pension System

Executive Summary

Quarterly Change in Market Value



→ Total market value decreased due to negative investment performance and net outflows.



Dallas Police & Fire Pension System

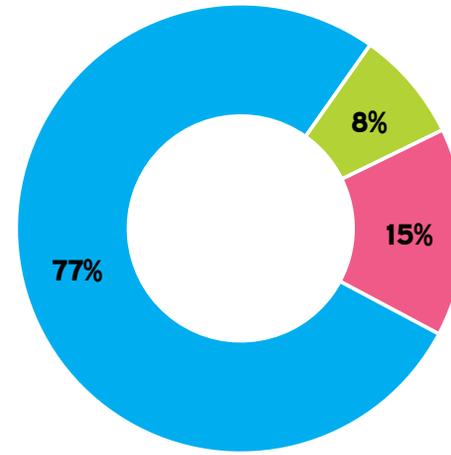
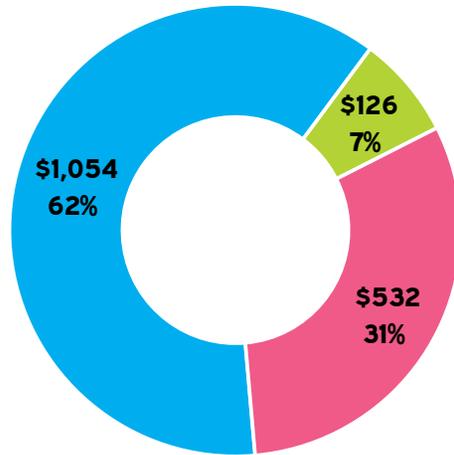
Executive Summary

Liquidity Exposure  
As of June 30, 2022

Exposure(\$M) Targets

■ Daily or Weekly ■ Monthly ■ Illiquid

■ Daily or Weekly ■ Monthly ■ Illiquid



→ Approximately 31% of the DPFP's assets are illiquid versus 15% of the target allocation.



## Dallas Police & Fire Pension System

### Executive Summary

#### Quarterly Manager Scorecard

	1 Yr Outperformance vs. Benchmark	3 Yr Outperformance vs. Benchmark	5 Yr Outperformance vs. Benchmark
Boston Partners Global Equity Fund	Yes	Yes	No
Manulife Global Equity Strategy	Yes	No	No
Invesco (fka OFI) Global Equity	No	No	No
Walter Scott Global Equity Fund	No	No	Yes
Eastern Shore US Small Cap	NA	NA	NA
Global Alpha Int'l Small Cap	NA	NA	NA
RBC Emerging Markets Equity	Yes	No	NA
IR&M 1-3 Year Strategy	No	Yes	Yes
Longfellow Core Fixed Income	No	NA	NA
Pacific Asset Management (Bank) Loans	Yes	Yes	NA
Loomis High Yield Fund	No	NA	NA
Ashmore EM Blended Debt	No	No	NA



Dallas Police & Fire Pension System

Executive Summary

Equity Regional Exposure<sup>1</sup>

	Market Value (\$)	% of DFPF Public Equity	US (%)	Developed Non-US (%)	EM (%)
NT MSCI ACWI IMI	161,225,976	21	60	29	10
Walter Scott	119,683,277	15	57	40	3
Manulife	119,517,737	15	59	39	3
Invesco	118,055,580	15	59	36	6
Boston Partners	114,133,097	15	53	45	3
RBC	83,045,914	11	0	19	81
Eastern Shore	29,673,793	4	99	1	0
Global Alpha	35,819,058	5	3	97	0
<b>DFPF Public Equity</b>	<b>781,154,432</b>	<b>100</b>	<b>51</b>	<b>37</b>	<b>13</b>
<i>MSCI ACWI IMI</i>			<i>60</i>	<i>29</i>	<i>10</i>



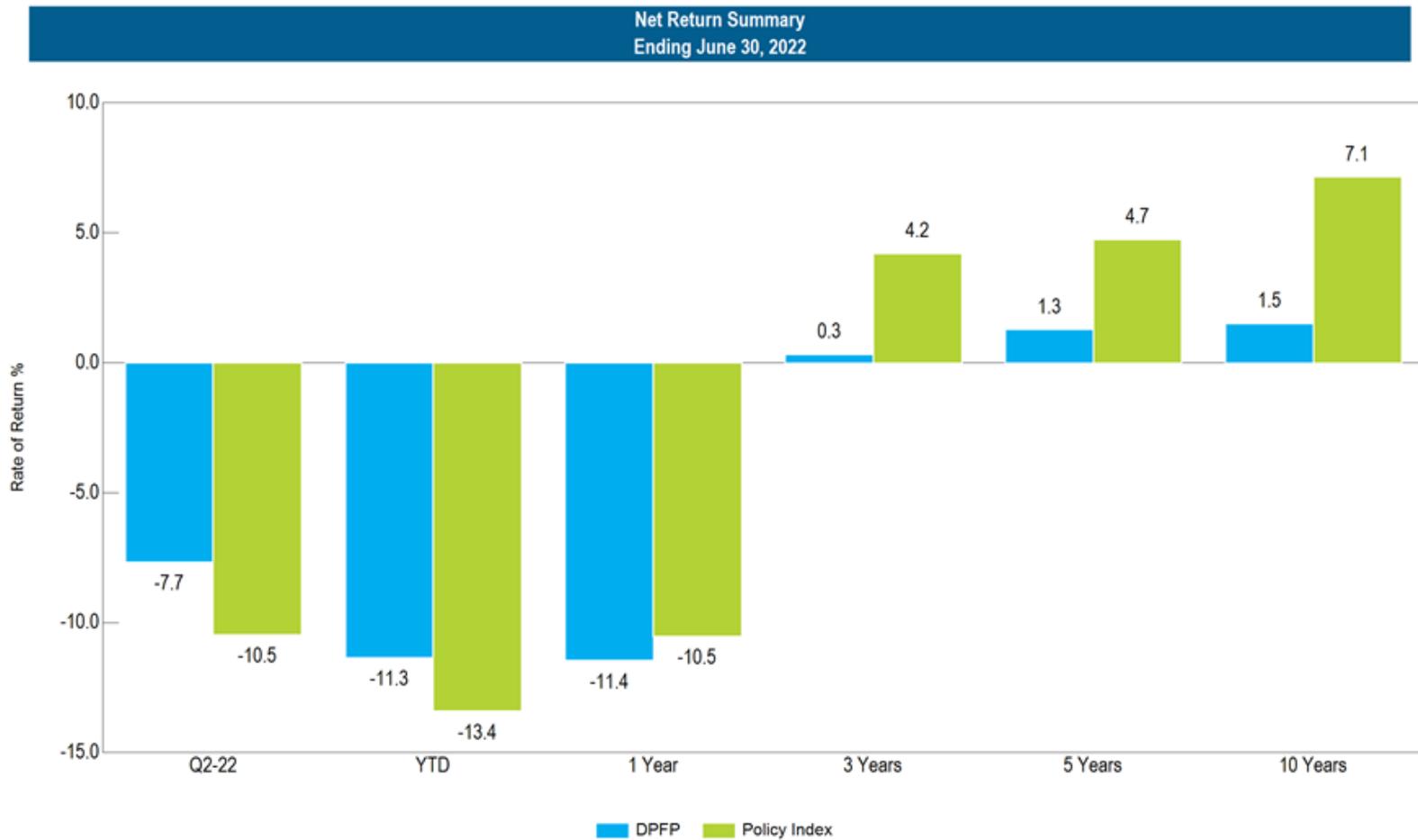
<sup>1</sup> Percentages may not always sum to 100% due to rounding.

**Performance Update**  
**As of June 30, 2022**



Dallas Police & Fire Pension System

DPFP | As of June 30, 2022

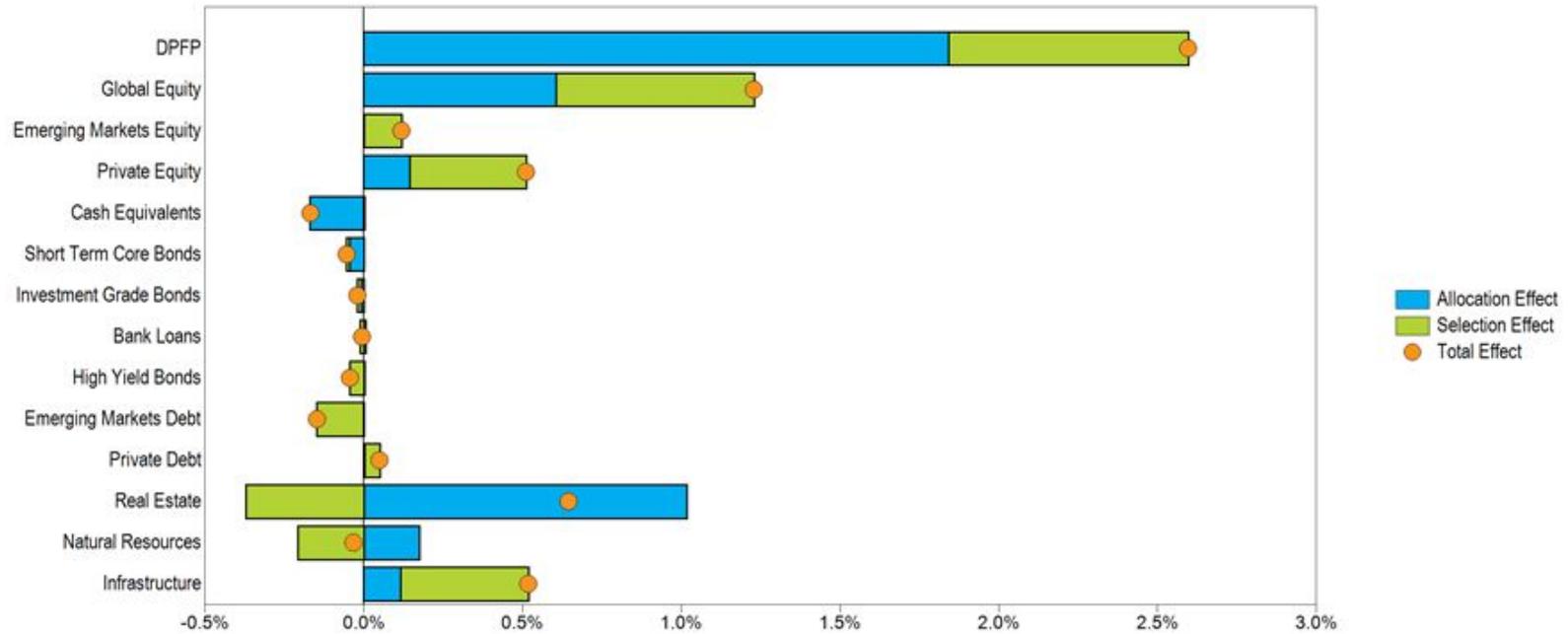




Dallas Police & Fire Pension System

DPFP | As of June 30, 2022

Attribution Effects vs. Policy Benchmark  
3 Months Ending June 30, 2022



Attribution Summary 3 Months Ending June 30, 2022						
	Wtd. Actual Return	Wtd. Index Return	Excess Return	Selection Effect	Allocation Effect	Total Effects
<b>Total</b>	<b>-7.9%</b>	<b>-10.4%</b>	<b>2.6%</b>	<b>0.8%</b>	<b>1.8%</b>	<b>2.6%</b>

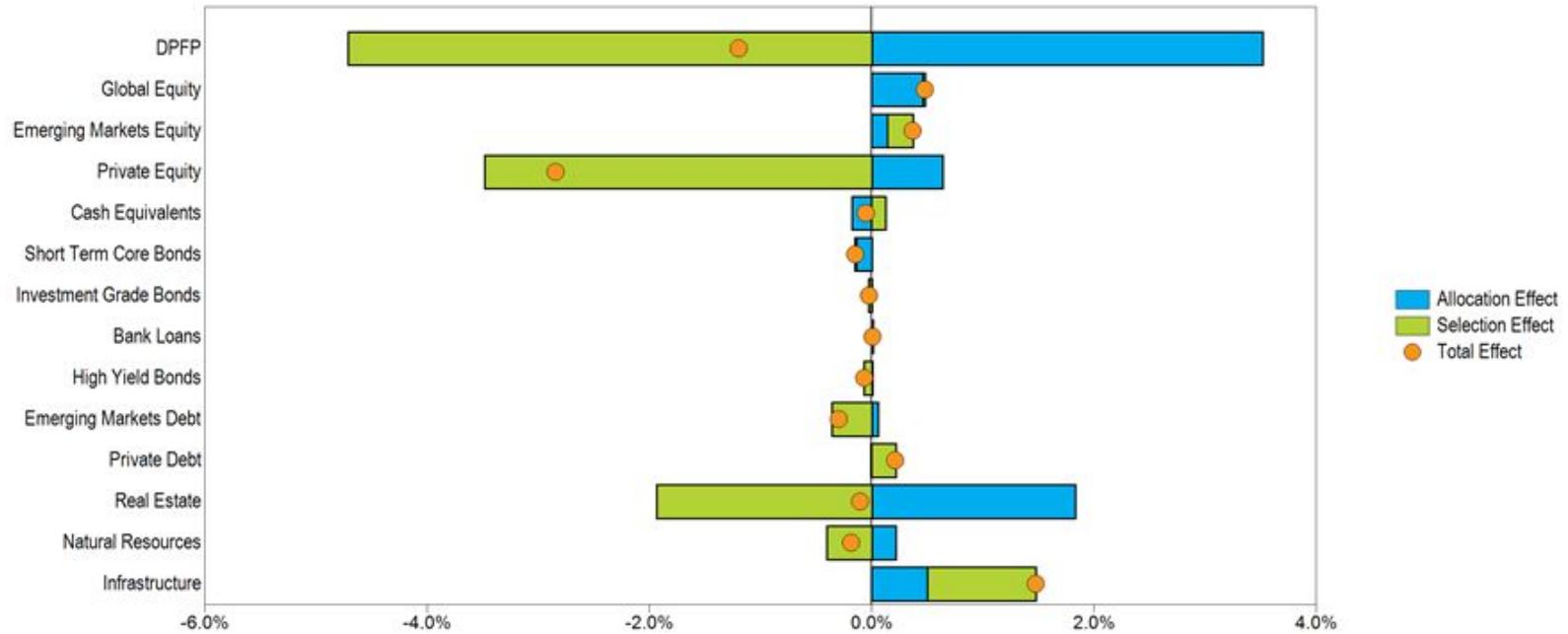
The performance calculation methodology in attribution tables is different from the standard time weighted returns (geometric linkage of monthly returns) found throughout the rest of the report. In attribution tables, the average weight of each asset class (over the specified time period) is multiplied by the time period performance of that asset class and summed. Values may not sum due to rounding.



Dallas Police & Fire Pension System

DPFP | As of June 30, 2022

**Attribution Effects vs. Policy Benchmark  
1 Year Ending June 30, 2022**



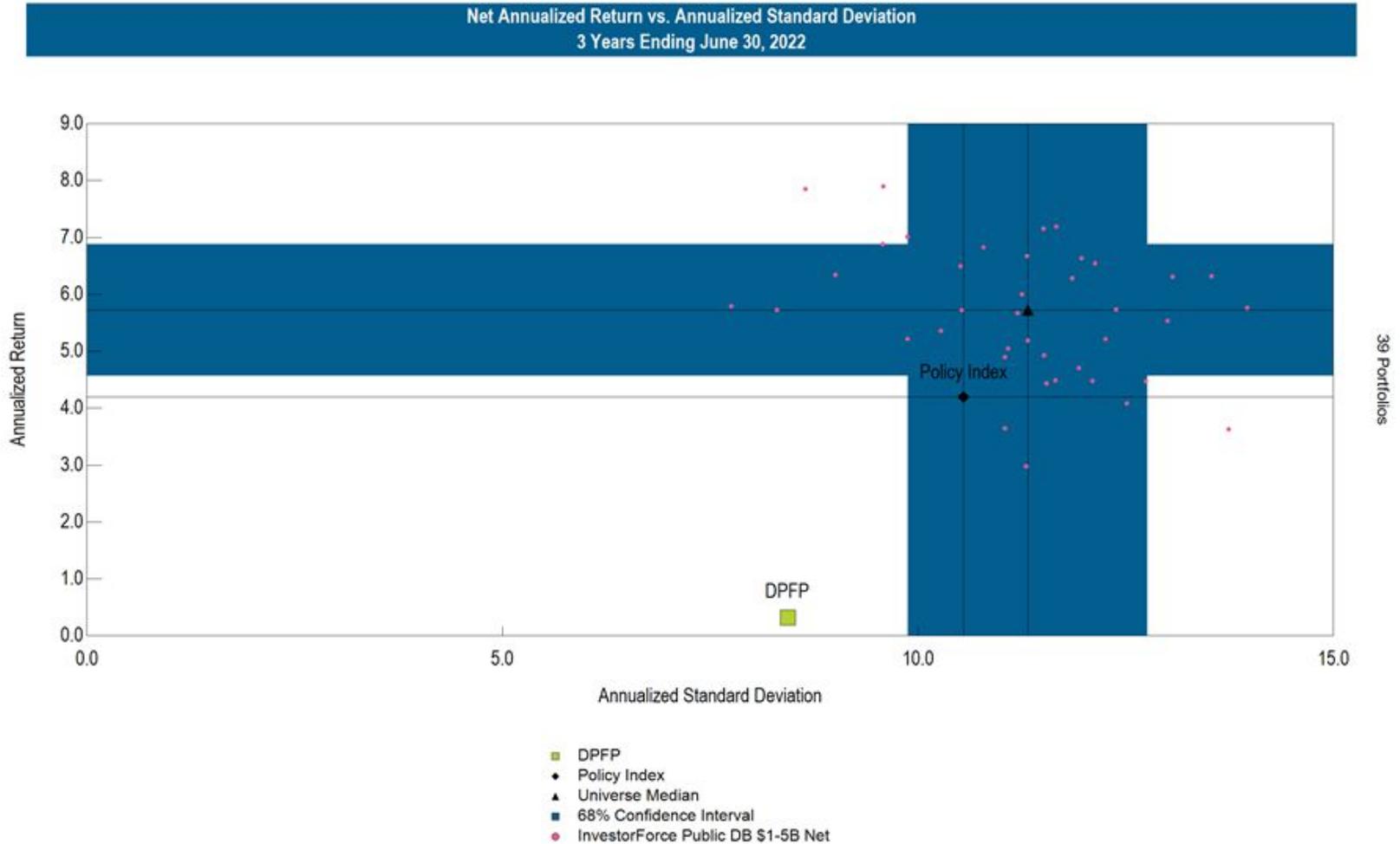
Attribution Summary 1 Year Ending June 30, 2022						
	Wtd. Actual Return	Wtd. Index Return	Excess Return	Selection Effect	Allocation Effect	Total Effects
<b>Total</b>	<b>-11.5%</b>	<b>-10.2%</b>	<b>-1.2%</b>	<b>-4.7%</b>	<b>3.5%</b>	<b>-1.2%</b>

The performance calculation methodology in attribution tables is different from the standard time weighted returns (geometric linkage of monthly returns) found throughout the rest of the report. In attribution tables, the average weight of each asset class (over the specified time period) is multiplied by the time period performance of that asset class and summed. Values may not sum due to rounding.



# Dallas Police & Fire Pension System

DPFP | As of June 30, 2022





## Dallas Police &amp; Fire Pension System

DPFP | As of June 30, 2022

Asset Class Performance Summary (Net)										
	Market Value (\$)	% of Portfolio	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	S.I. (%)	S.I. Date
<b>DPFP</b>	<b>1,712,108,441</b>	<b>100.0</b>	<b>-7.7</b>	<b>-11.3</b>	<b>-11.4</b>	<b>0.3</b>	<b>1.3</b>	<b>1.5</b>	<b>5.1</b>	<b>Jun-96</b>
<i>Policy Index</i>			-10.5	-13.4	-10.5	4.2	4.7	7.1	--	Jun-96
<i>Allocation Index</i>			-8.6	-10.6	-5.8	5.2	5.5	8.0	7.0	Jun-96
<i>Total Fund Ex Private Markets</i>			-11.2	-16.7	-14.3	2.8	4.0	5.5	5.2	Jun-96
<i>60% MSCI ACWI IMI Net/40% Bloomberg Global Aggregate Index</i>			-12.8	-17.8	-15.9	2.5	4.0	5.4	5.6	Jun-96
<b>Global Equity</b>	<b>698,108,518</b>	<b>40.8</b>	<b>-14.5</b>	<b>-20.9</b>	<b>-16.4</b>	<b>5.8</b>	<b>7.1</b>	<b>9.6</b>	<b>6.4</b>	<b>Jul-06</b>
<i>MSCI ACWI IMI Net USD</i>			-15.8	-20.4	-16.5	6.0	6.7	8.7	6.0	Jul-06
<b>Emerging Markets Equity</b>	<b>83,045,914</b>	<b>4.9</b>	<b>-9.7</b>	<b>-14.4</b>	<b>-20.8</b>	<b>-0.1</b>	<b>--</b>	<b>--</b>	<b>0.2</b>	<b>Jan-18</b>
<i>MSCI Emerging Markets IMI Net</i>			-12.1	-17.9	-24.8	1.1	2.3	3.2	-0.7	Jan-18
<b>Private Equity</b>	<b>135,370,388</b>	<b>7.9</b>	<b>1.0</b>	<b>0.6</b>	<b>-29.8</b>	<b>-14.1</b>	<b>-10.3</b>	<b>-9.3</b>	<b>-3.7</b>	<b>Oct-05</b>
<i>Russell 3000 +3% 1-Quarter Lag</i>			-4.6	5.0	15.3	21.7	18.8	17.7	13.7	Oct-05
<b>Cash Equivalents</b>	<b>54,528,026</b>	<b>3.2</b>	<b>0.2</b>	<b>0.2</b>	<b>3.5</b>	<b>1.8</b>	<b>1.8</b>	<b>--</b>	<b>1.6</b>	<b>Apr-15</b>
<i>91 Day T-Bills</i>			0.1	0.1	0.2	0.5	1.0	0.6	0.8	Apr-15
<b>Short Term Core Bonds</b>	<b>84,651,769</b>	<b>4.9</b>	<b>-0.8</b>	<b>-3.2</b>	<b>-3.7</b>	<b>0.7</b>	<b>1.4</b>	<b>--</b>	<b>1.4</b>	<b>Jun-17</b>
<i>Bloomberg US Aggregate 1-3 Yr TR</i>			-0.6	-3.1	-3.6	0.2	1.0	1.0	1.0	Jun-17
<b>Investment Grade Bonds</b>	<b>68,042,529</b>	<b>4.0</b>	<b>-5.0</b>	<b>-10.7</b>	<b>-10.8</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>-1.4</b>	<b>Oct-19</b>
<i>Bloomberg US Aggregate TR</i>			-4.7	-10.3	-10.3	-0.9	0.9	1.5	-1.8	Oct-19
<b>Bank Loans</b>	<b>68,690,340</b>	<b>4.0</b>	<b>-4.6</b>	<b>-4.4</b>	<b>-2.5</b>	<b>2.3</b>	<b>3.1</b>	<b>--</b>	<b>3.5</b>	<b>Jan-14</b>
<i>Credit Suisse Leveraged Loan</i>			-4.4	-4.4	-2.7	2.0	3.0	--	3.3	Jan-14
<b>High Yield Bonds</b>	<b>65,722,958</b>	<b>3.8</b>	<b>-10.9</b>	<b>-15.0</b>	<b>-14.5</b>	<b>-0.8</b>	<b>0.4</b>	<b>3.6</b>	<b>4.3</b>	<b>Dec-10</b>
<i>Bloomberg US Corporate High Yield TR</i>			-9.8	-14.2	-12.8	0.2	2.1	4.5	5.0	Dec-10
<b>Emerging Markets Debt</b>	<b>57,206,179</b>	<b>3.3</b>	<b>-14.1</b>	<b>-22.4</b>	<b>-29.4</b>	<b>-10.6</b>	<b>-4.9</b>	<b>-1.0</b>	<b>0.0</b>	<b>Dec-10</b>
<i>50% JPM EMBI/50% JPM GBI-EM</i>			-10.0	-17.5	-20.2	-5.5	-1.7	0.3	1.1	Dec-10
<b>Private Debt</b>	<b>6,116,626</b>	<b>0.4</b>	<b>5.5</b>	<b>-0.6</b>	<b>76.3</b>	<b>23.9</b>	<b>15.5</b>	<b>--</b>	<b>13.4</b>	<b>Jan-16</b>
<i>Barclays Global High Yield +2%</i>			-11.4	-16.0	-16.1	-0.7	2.1	--	5.2	Jan-16



Dallas Police & Fire Pension System

DPFP | As of June 30, 2022

Asset Class Performance Summary (Net)										
	Market Value (\$)	% of Portfolio	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	S.I. (%)	S.I. Date
<b>Real Estate</b>	<b>207,149,883</b>	<b>12.1</b>	<b>2.0</b>	<b>4.7</b>	<b>2.0</b>	<b>0.3</b>	<b>1.9</b>	<b>-2.7</b>	<b>3.5</b>	<b>Mar-85</b>
<i>NCREIF Property (1 Qtr Lag)</i>			5.3	11.8	21.9	9.6	8.5	9.6	8.2	Mar-85
<b>Natural Resources</b>	<b>116,220,634</b>	<b>6.8</b>	<b>-0.7</b>	<b>1.2</b>	<b>2.3</b>	<b>2.4</b>	<b>-0.4</b>	<b>3.1</b>	<b>3.6</b>	<b>Dec-10</b>
<i>NCREIF Farmland Total Return Index (1 Qtr Lag)</i>			2.6	6.5	9.7	5.9	6.2	9.6	10.5	Dec-10
<b>Infrastructure</b>	<b>67,254,677</b>	<b>3.9</b>	<b>4.5</b>	<b>9.1</b>	<b>52.5</b>	<b>11.1</b>	<b>4.5</b>	<b>8.2</b>	<b>8.2</b>	<b>Jul-12</b>
<i>S&amp;P Global Infrastructure TR USD</i>			-7.4	-0.5	5.6	3.5	4.8	7.2	7.2	Jul-12

<sup>1</sup> Please see the Appendix for composition of the Custom Benchmarks. <sup>2</sup>As of 06/30/2022, the Safety Reserve exposure was approximately \$139.2 million (8.1%).

<sup>3</sup> All private market data is one quarter lagged, unless otherwise noted. <sup>4</sup>Lone Star Funds 12/31/2020 valuation used



## Dallas Police &amp; Fire Pension System

DPFP | As of June 30, 2022

Trailing Net Performance											
	Market Value (\$)	% of Portfolio	% of Sector	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	S.I. (%)	S.I. Date
<b>DPFP</b>	<b>1,712,108,441</b>	<b>100.0</b>	<b>--</b>	<b>-7.7</b>	<b>-11.3</b>	<b>-11.4</b>	<b>0.3</b>	<b>1.3</b>	<b>1.5</b>	<b>5.1</b>	<b>Jun-96</b>
<i>Policy Index</i>				-10.5	-13.4	-10.5	4.2	4.7	7.1	--	Jun-96
<i>Allocation Index</i>				-8.6	-10.6	-5.8	5.2	5.5	8.0	7.0	Jun-96
<i>Total Fund Ex Private Markets</i>				-11.2	-16.7	-14.3	2.8	4.0	5.5	5.2	Jun-96
<i>60% MSCI ACWI IMI Net/40% Bloomberg Global Aggregate Index</i>				-12.8	-17.8	-15.9	2.5	4.0	5.4	5.6	Jun-96
<i>InvestorForce Public DB \$1-5B Net Rank</i>				24	33	84	99	99	99	99	Jun-96
<b>Total Equity</b>	<b>916,524,820</b>	<b>53.5</b>	<b>53.5</b>	<b>-12.1</b>	<b>-17.8</b>	<b>-19.2</b>	<b>1.3</b>	<b>2.5</b>	<b>4.0</b>	<b>3.3</b>	<b>Dec-10</b>
<i>MSCI ACWI IMI Net USD</i>				-15.8	-20.4	-16.5	6.0	6.7	8.7	7.3	Dec-10
<b>Public Equity</b>	<b>781,154,432</b>	<b>45.6</b>	<b>85.2</b>	<b>-14.0</b>	<b>-20.3</b>	<b>-16.7</b>	<b>5.6</b>	<b>6.9</b>	<b>9.5</b>	<b>6.3</b>	<b>Jul-06</b>
<i>MSCI ACWI IMI Net USD</i>				-15.8	-20.4	-16.5	6.0	6.7	8.7	6.0	Jul-06
<i>eV All Global Equity Net Rank</i>				34	45	54	52	48	37	44	Jul-06
<b>Global Equity</b>	<b>698,108,518</b>	<b>40.8</b>	<b>89.4</b>	<b>-14.5</b>	<b>-20.9</b>	<b>-16.4</b>	<b>5.8</b>	<b>7.1</b>	<b>9.6</b>	<b>6.4</b>	<b>Jul-06</b>
<i>MSCI ACWI IMI Net USD</i>				-15.8	-20.4	-16.5	6.0	6.7	8.7	6.0	Jul-06
<i>eV All Global Equity Net Rank</i>				38	50	51	49	43	34	43	Jul-06
<i>Boston Partners Global Equity Fund</i>	114,133,097	6.7	16.3	-11.1	-11.9	-8.7	7.4	5.7	--	5.7	Jul-17
<i>MSCI World Net</i>				-16.2	-20.5	-14.3	7.0	7.7	9.5	7.7	Jul-17
<i>MSCI World Value</i>				-11.6	-12.2	-6.6	4.5	4.7	7.6	4.7	Jul-17
<i>eV Global All Cap Value Eq Net Rank</i>				17	20	21	21	29	--	29	Jul-17
<i>Manulife Global Equity Strategy</i>	119,517,737	7.0	17.1	-10.7	-16.8	-10.5	6.1	6.5	--	6.5	Jul-17
<i>MSCI ACWI Net</i>				-15.7	-20.2	-15.8	6.2	7.0	8.8	7.0	Jul-17
<i>MSCI ACWI Value NR USD</i>				-11.5	-12.3	-8.1	3.9	4.3	6.9	4.3	Jul-17
<i>eV Global Large Cap Value Eq Net Rank</i>				27	67	44	38	18	--	18	Jul-17

<sup>1</sup> All Private Equity market values are one quarter lagged unless otherwise noted.

<sup>2</sup> 60% MSCI ACWI IMI Net/40% Bloomberg Global Aggregate Index composed of 60% MSCI ACWI (Net)/ 40% Bloomberg Global Aggregate in periods before 2/1/1997.



## Dallas Police &amp; Fire Pension System

DPFP | As of June 30, 2022

	Market Value (\$)	% of Portfolio	% of Sector	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	S.I. (%)	S.I. Date
Walter Scott Global Equity Fund	119,683,277	7.0	17.1	-15.6	-23.6	-16.2	5.7	9.3	9.9	9.0	Dec-09
<i>MSCI ACWI Net</i>				-15.7	-20.2	-15.8	6.2	7.0	8.8	7.9	Dec-09
<i>MSCI ACWI Growth</i>				-20.2	-27.9	-23.5	7.6	9.2	10.3	9.4	Dec-09
<i>eV Global Large Cap Growth Eq Net Rank</i>				19	25	20	54	42	57	63	Dec-09
Invesco (fka OFI) Global Equity	118,055,580	6.9	16.9	-18.6	-31.3	-29.6	3.1	5.9	9.7	5.7	Oct-07
<i>MSCI ACWI Net</i>				-15.7	-20.2	-15.8	6.2	7.0	8.8	4.6	Oct-07
<i>MSCI ACWI Growth</i>				-20.2	-27.9	-23.5	7.6	9.2	10.3	6.1	Oct-07
<i>eV Global Large Cap Growth Eq Net Rank</i>				55	70	69	90	84	58	64	Oct-07
NT ACWI Index IMI	161,225,976	9.4	23.1	-15.3	-20.1	-16.1	--	--	--	-8.0	Apr-21
<i>MSCI ACWI IMI Net USD</i>				-15.8	-20.4	-16.5	6.0	6.7	8.7	-8.5	Apr-21
<i>eV Global All Cap Equity Net Rank</i>				48	44	43	--	--	--	39	Apr-21
Eastern Shore US Small Cap	29,673,793	1.7	4.3	-18.2	-27.2	--	--	--	--	-22.0	Oct-21
<i>Russell 2000</i>				-17.2	-23.4	-25.2	4.2	5.2	9.4	-21.8	Oct-21
<i>eV US Small Cap Equity Net Rank</i>				75	76	--	--	--	--	72	Oct-21
Global Alpha International Small Cap	35,819,058	2.1	5.1	--	--	--	--	--	--	-11.0	May-22
<i>MSCI EAFE Small Cap</i>				-17.7	-24.7	-24.0	1.1	1.7	7.2	-11.6	May-22
<b>Emerging Markets Equity</b>	<b>83,045,914</b>	<b>4.9</b>	<b>10.6</b>	<b>-9.7</b>	<b>-14.4</b>	<b>-20.8</b>	<b>-0.1</b>	<b>--</b>	<b>--</b>	<b>0.2</b>	<b>Jan-18</b>
<i>MSCI Emerging Markets IMI Net</i>				-12.1	-17.9	-24.8	1.1	2.3	3.2	-0.7	Jan-18
<i>eV Emg Mkts Equity Net Rank</i>				11	13	26	68	--	--	32	Jan-18
RBC Emerging Markets Equity	83,045,914	4.9	100.0	-9.7	-14.4	-20.8	-0.1	--	--	0.2	Jan-18
<i>MSCI Emerging Markets IMI Net</i>				-12.1	-17.9	-24.8	1.1	2.3	3.2	-0.7	Jan-18
<i>eV Emg Mkts Equity Net Rank</i>				11	13	26	68	--	--	32	Jan-18



Dallas Police & Fire Pension System

DPPF | As of June 30, 2022

	Market Value (\$)	% of Portfolio	% of Sector	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	S.I. (%)	S.I. Date
<b>Private Equity</b>	<b>135,370,388</b>	<b>7.9</b>	<b>14.8</b>	<b>1.0</b>	<b>0.6</b>	<b>-29.8</b>	<b>-14.1</b>	<b>-10.3</b>	<b>-9.3</b>	<b>-3.7</b>	<b>Oct-05</b>
<i>Russell 3000 +3% 1-Quarter Lag</i>				-4.6	5.0	15.3	21.7	18.8	17.7	13.7	Oct-05
<b>Total Fixed Income and Cash</b>	<b>404,958,427</b>	<b>23.7</b>	<b>23.7</b>	<b>-5.6</b>	<b>-9.1</b>	<b>-8.9</b>	<b>-0.7</b>	<b>0.9</b>	<b>2.6</b>	<b>4.2</b>	<b>Jul-06</b>
<i>Bloomberg Multiverse TR</i>				-8.4	-14.0	-15.4	-3.2	-0.5	0.3	2.5	Jul-06
<i>eV All Global Fixed Inc Net Rank</i>				20	19	21	38	50	42	34	Jul-06
<b>Cash Equivalents</b>	<b>54,528,026</b>	<b>3.2</b>	<b>13.5</b>	<b>0.2</b>	<b>0.2</b>	<b>3.5</b>	<b>1.8</b>	<b>1.8</b>	<b>--</b>	<b>1.6</b>	<b>Apr-15</b>
<i>91 Day T-Bills</i>				0.1	0.1	0.2	0.5	1.0	0.6	0.8	Apr-15
<b>Public Fixed Income</b>	<b>344,313,775</b>	<b>20.1</b>	<b>85.0</b>	<b>-6.6</b>	<b>-10.6</b>	<b>-11.5</b>	<b>-1.3</b>	<b>0.6</b>	<b>2.7</b>	<b>3.6</b>	<b>Dec-10</b>
<i>Bloomberg Multiverse TR</i>				-8.4	-14.0	-15.4	-3.2	-0.5	0.3	0.9	Dec-10
<i>eV All Global Fixed Inc Net Rank</i>				26	27	33	51	58	40	28	Dec-10
<b>Short Term Core Bonds</b>	<b>84,651,769</b>	<b>4.9</b>	<b>24.6</b>	<b>-0.8</b>	<b>-3.2</b>	<b>-3.7</b>	<b>0.7</b>	<b>1.4</b>	<b>--</b>	<b>1.4</b>	<b>Jun-17</b>
<i>Bloomberg US Aggregate 1-3 Yr TR</i>				-0.6	-3.1	-3.6	0.2	1.0	1.0	1.0	Jun-17
<i>IR&amp;M 1-3 Year Strategy</i>	84,651,769	4.9	100.0	-0.8	-3.2	-3.7	0.7	1.4	--	1.4	Jul-17
<i>Bloomberg US Aggregate 1-3 Yr TR</i>				-0.6	-3.1	-3.6	0.2	1.0	1.0	1.0	Jul-17
<i>eV US Short Duration Fixed Inc Net Rank</i>				26	34	42	14	17	--	17	Jul-17
<b>Investment Grade Bonds</b>	<b>68,042,529</b>	<b>4.0</b>	<b>19.8</b>	<b>-5.0</b>	<b>-10.7</b>	<b>-10.8</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>-1.4</b>	<b>Oct-19</b>
<i>Bloomberg US Aggregate TR</i>				-4.7	-10.3	-10.3	-0.9	0.9	1.5	-1.8	Oct-19
<i>eV US Core Fixed Inc Net Rank</i>				59	65	68	--	--	--	36	Oct-19
<i>Longfellow Core Fixed Income</i>	68,042,529	4.0	100.0	-5.0	-10.7	-10.8	--	--	--	-5.0	Jul-20
<i>Bloomberg US Aggregate TR</i>				-4.7	-10.3	-10.3	-0.9	0.9	1.5	-5.4	Jul-20
<i>eV US Core Fixed Inc Net Rank</i>				59	65	68	--	--	--	42	Jul-20

<sup>1</sup> All Private Equity market values are one quarter lagged unless otherwise noted.

<sup>2</sup> Lone Star Funds 12/31/2020 valuation used.



## Dallas Police &amp; Fire Pension System

DPFP | As of June 30, 2022

	Market Value (\$)	% of Portfolio	% of Sector	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	S.I. (%)	S.I. Date
<b>Bank Loans</b>	<b>68,690,340</b>	<b>4.0</b>	<b>19.9</b>	<b>-4.6</b>	<b>-4.4</b>	<b>-2.5</b>	<b>2.3</b>	<b>3.1</b>	<b>--</b>	<b>3.5</b>	<b>Jan-14</b>
<i>Credit Suisse Leveraged Loan</i>				<i>-4.4</i>	<i>-4.4</i>	<i>-2.7</i>	<i>2.0</i>	<i>3.0</i>	<i>--</i>	<i>3.3</i>	<i>Jan-14</i>
<i>eV US Float-Rate Bank Loan Fixed Inc Net Rank</i>				<i>38</i>	<i>23</i>	<i>24</i>	<i>8</i>	<i>13</i>	<i>--</i>	<i>11</i>	<i>Jan-14</i>
Pacific Asset Mgmt Corporate (Bank) Loans	68,690,340	4.0	100.0	-4.6	-4.4	-2.5	2.0	--	--	2.9	Aug-17
<i>Credit Suisse Leveraged Loan</i>				<i>-4.4</i>	<i>-4.4</i>	<i>-2.7</i>	<i>2.0</i>	<i>3.0</i>	<i>--</i>	<i>2.9</i>	<i>Aug-17</i>
<i>eV US Float-Rate Bank Loan Fixed Inc Net Rank</i>				<i>38</i>	<i>23</i>	<i>24</i>	<i>17</i>	<i>--</i>	<i>--</i>	<i>16</i>	<i>Aug-17</i>
<b>High Yield Bonds</b>	<b>65,722,958</b>	<b>3.8</b>	<b>19.1</b>	<b>-10.9</b>	<b>-15.0</b>	<b>-14.5</b>	<b>-0.8</b>	<b>0.4</b>	<b>3.6</b>	<b>4.3</b>	<b>Dec-10</b>
<i>Bloomberg US Corporate High Yield TR</i>				<i>-9.8</i>	<i>-14.2</i>	<i>-12.8</i>	<i>0.2</i>	<i>2.1</i>	<i>4.5</i>	<i>5.0</i>	<i>Dec-10</i>
<i>eV US High Yield Fixed Inc Net Rank</i>				<i>91</i>	<i>89</i>	<i>93</i>	<i>91</i>	<i>99</i>	<i>80</i>	<i>63</i>	<i>Dec-10</i>
Loomis US High Yield Fund	65,722,958	3.8	100.0	-10.9	-15.0	-14.5	--	--	--	-8.1	Jan-21
<i>Bloomberg US High Yield 2% Issuer Cap TR</i>				<i>-9.8</i>	<i>-14.2</i>	<i>-12.8</i>	<i>0.2</i>	<i>2.1</i>	<i>4.5</i>	<i>-6.6</i>	<i>Jan-21</i>
<i>eV US High Yield Fixed Inc Net Rank</i>				<i>91</i>	<i>89</i>	<i>93</i>	<i>--</i>	<i>--</i>	<i>--</i>	<i>96</i>	<i>Jan-21</i>
<b>Emerging Markets Debt</b>	<b>57,206,179</b>	<b>3.3</b>	<b>16.6</b>	<b>-14.1</b>	<b>-22.4</b>	<b>-29.4</b>	<b>-10.6</b>	<b>-4.9</b>	<b>-1.0</b>	<b>0.0</b>	<b>Dec-10</b>
<i>50% JPM EMBI/50% JPM GBI-EM</i>				<i>-10.0</i>	<i>-17.5</i>	<i>-20.2</i>	<i>-5.5</i>	<i>-1.7</i>	<i>0.3</i>	<i>1.1</i>	<i>Dec-10</i>
<i>eV All Emg Mkts Fixed Inc Net Rank</i>				<i>96</i>	<i>95</i>	<i>99</i>	<i>99</i>	<i>99</i>	<i>82</i>	<i>75</i>	<i>Dec-10</i>
Ashmore EM Blended Debt	57,206,179	3.3	100.0	-14.1	-22.4	-29.4	-10.6	--	--	-5.9	Dec-17
<i>Ashmore Blended Debt Benchmark</i>				<i>-9.0</i>	<i>-16.3</i>	<i>-18.5</i>	<i>-4.8</i>	<i>-1.4</i>	<i>0.6</i>	<i>-2.1</i>	<i>Dec-17</i>
<i>eV All Emg Mkts Fixed Inc Net Rank</i>				<i>96</i>	<i>95</i>	<i>99</i>	<i>99</i>	<i>--</i>	<i>--</i>	<i>99</i>	<i>Dec-17</i>
<b>Private Debt</b>	<b>6,116,626</b>	<b>0.4</b>	<b>1.5</b>	<b>5.5</b>	<b>-0.6</b>	<b>76.3</b>	<b>23.9</b>	<b>16.7</b>	<b>--</b>	<b>9.0</b>	<b>Jan-16</b>
<i>Bloomberg US High Yield+2%</i>				<i>-9.4</i>	<i>-13.3</i>	<i>-11.1</i>	<i>2.2</i>	<i>4.1</i>	<i>6.6</i>	<i>7.0</i>	<i>Jan-16</i>



## Dallas Police & Fire Pension System

DPFP | As of June 30, 2022

	Market Value (\$)	% of Portfolio	% of Sector	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	S.I. (%)	S.I. Date
<b>Total Real Assets</b>	<b>390,625,194</b>	<b>22.8</b>	<b>22.8</b>	<b>1.6</b>	<b>4.4</b>	<b>8.0</b>	<b>2.5</b>	<b>2.1</b>	<b>-0.3</b>	<b>-0.7</b>	<b>Dec-10</b>
<i>Total Real Assets Policy Index</i>				<i>4.0</i>	<i>9.2</i>	<i>15.7</i>	<i>7.8</i>	<i>7.4</i>	<i>9.6</i>	<i>10.4</i>	<i>Dec-10</i>
<b>Real Estate</b>	<b>207,149,883</b>	<b>12.1</b>	<b>53.0</b>	<b>2.0</b>	<b>4.7</b>	<b>2.0</b>	<b>0.3</b>	<b>1.9</b>	<b>-2.7</b>	<b>3.5</b>	<b>Mar-85</b>
<i>NCREIF Property (1 Qtr Lag)</i>				<i>5.3</i>	<i>11.8</i>	<i>21.9</i>	<i>9.6</i>	<i>8.5</i>	<i>9.6</i>	<i>8.2</i>	<i>Mar-85</i>
<b>Natural Resources</b>	<b>116,220,634</b>	<b>6.8</b>	<b>29.8</b>	<b>-0.7</b>	<b>1.2</b>	<b>2.3</b>	<b>2.4</b>	<b>-0.4</b>	<b>3.1</b>	<b>3.6</b>	<b>Dec-10</b>
<i>NCREIF Farmland Total Return Index (1 Qtr Lag)</i>				<i>2.6</i>	<i>6.5</i>	<i>9.7</i>	<i>5.9</i>	<i>6.2</i>	<i>9.6</i>	<i>10.5</i>	<i>Dec-10</i>
<b>Infrastructure</b>	<b>67,254,677</b>	<b>3.9</b>	<b>17.2</b>	<b>4.5</b>	<b>9.1</b>	<b>52.5</b>	<b>11.1</b>	<b>4.5</b>	<b>8.2</b>	<b>8.2</b>	<b>Jul-12</b>
<i>S&amp;P Global Infrastructure TR USD</i>				<i>-7.4</i>	<i>-0.5</i>	<i>5.6</i>	<i>3.5</i>	<i>4.8</i>	<i>7.2</i>	<i>7.2</i>	<i>Jul-12</i>

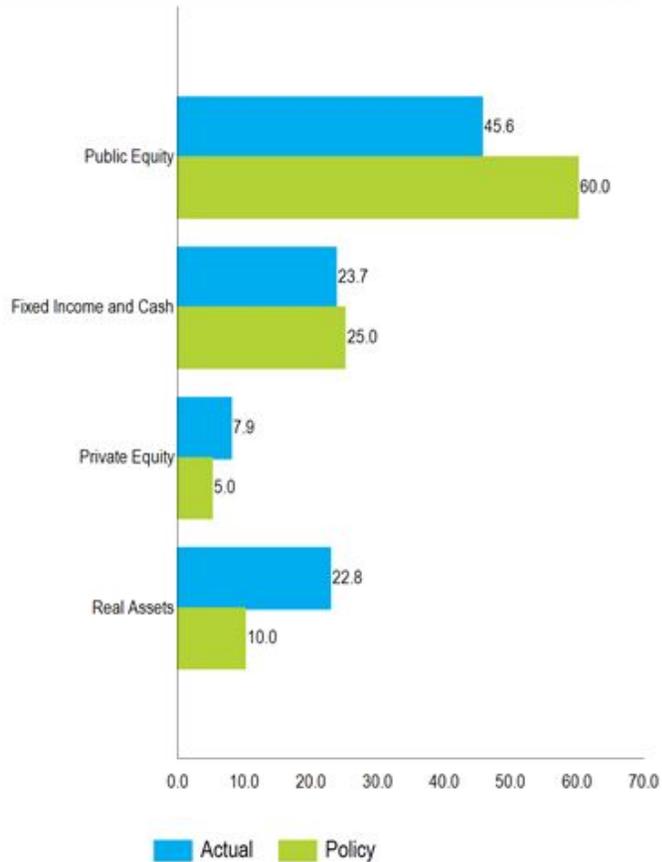
<sup>1</sup> All Private Market market values are one quarter lagged unless otherwise noted.



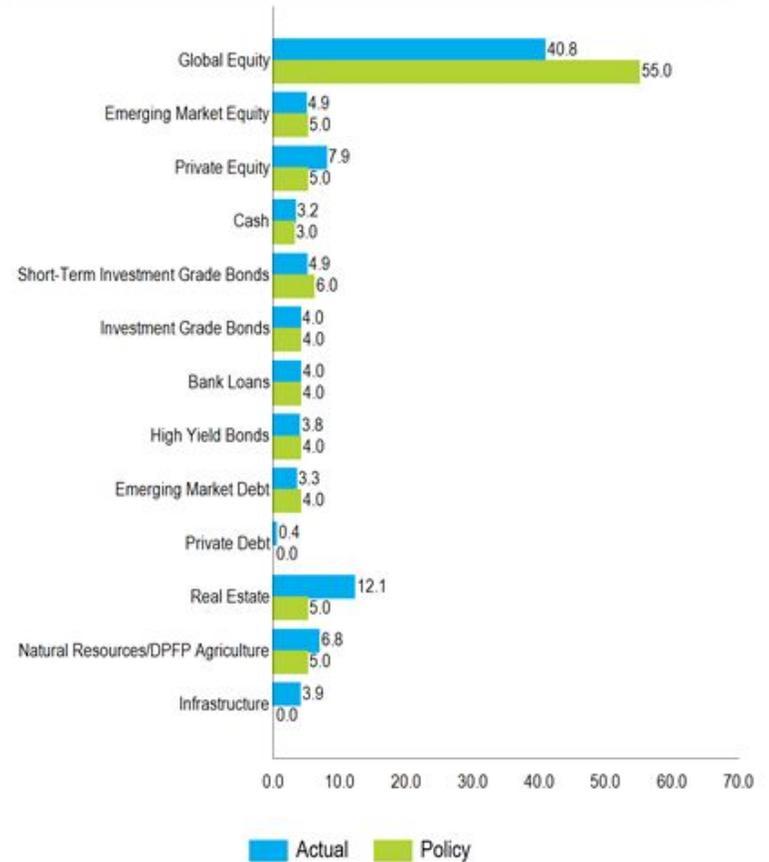
## Dallas Police & Fire Pension System

DPFP | As of June 30, 2022

**Asset Category Actual vs Target Allocation (%)**  
As of June 30, 2022



**Asset Classes Actual vs Target Allocation (%)**  
As of June 30, 2022





## Dallas Police & Fire Pension System

DPFP | As of June 30, 2022

	Current Balance	Current Allocation	Policy	Policy Range	Within IPS Range?
<b>Equity</b>	<b>\$916,524,820</b>	<b>53%</b>	<b>65%</b>		
Global Equity	\$698,108,518	41%	55%	36% - 60%	Yes
Emerging Market Equity	\$83,045,914	5%	5%	3% - 7%	Yes
Private Equity	\$135,370,388	8%	5%		
<b>Fixed Income and Cash</b>	<b>\$404,958,427</b>	<b>24%</b>	<b>25%</b>		
Cash	\$54,528,026	3%	3%	0% - 6%	Yes
Short-Term Investment Grade Bonds	\$84,651,769	5%	6%	0% - 9%	Yes
Investment Grade Bonds	\$68,042,529	4%	4%	2% - 6%	Yes
Bank Loans	\$68,690,340	4%	4%	2% - 6%	Yes
High Yield Bonds	\$65,722,958	4%	4%	2% - 6%	Yes
Emerging Market Debt	\$57,206,179	3%	4%	2% - 6%	Yes
Private Debt	\$6,116,626	0%	0%		
<b>Real Assets</b>	<b>\$390,625,194</b>	<b>23%</b>	<b>10%</b>		
Real Estate	\$207,149,883	12%	5%		
Natural Resources/DPFP Agriculture	\$116,220,634	7%	5%		
Infrastructure	\$67,254,677	4%	0%		
<b>Total</b>	<b>\$1,712,108,441</b>	<b>100%</b>	<b>100%</b>		

<sup>1</sup> As of 6/30/2022, the Safety Reserve exposure was approximately \$139.2 million (8.1%).

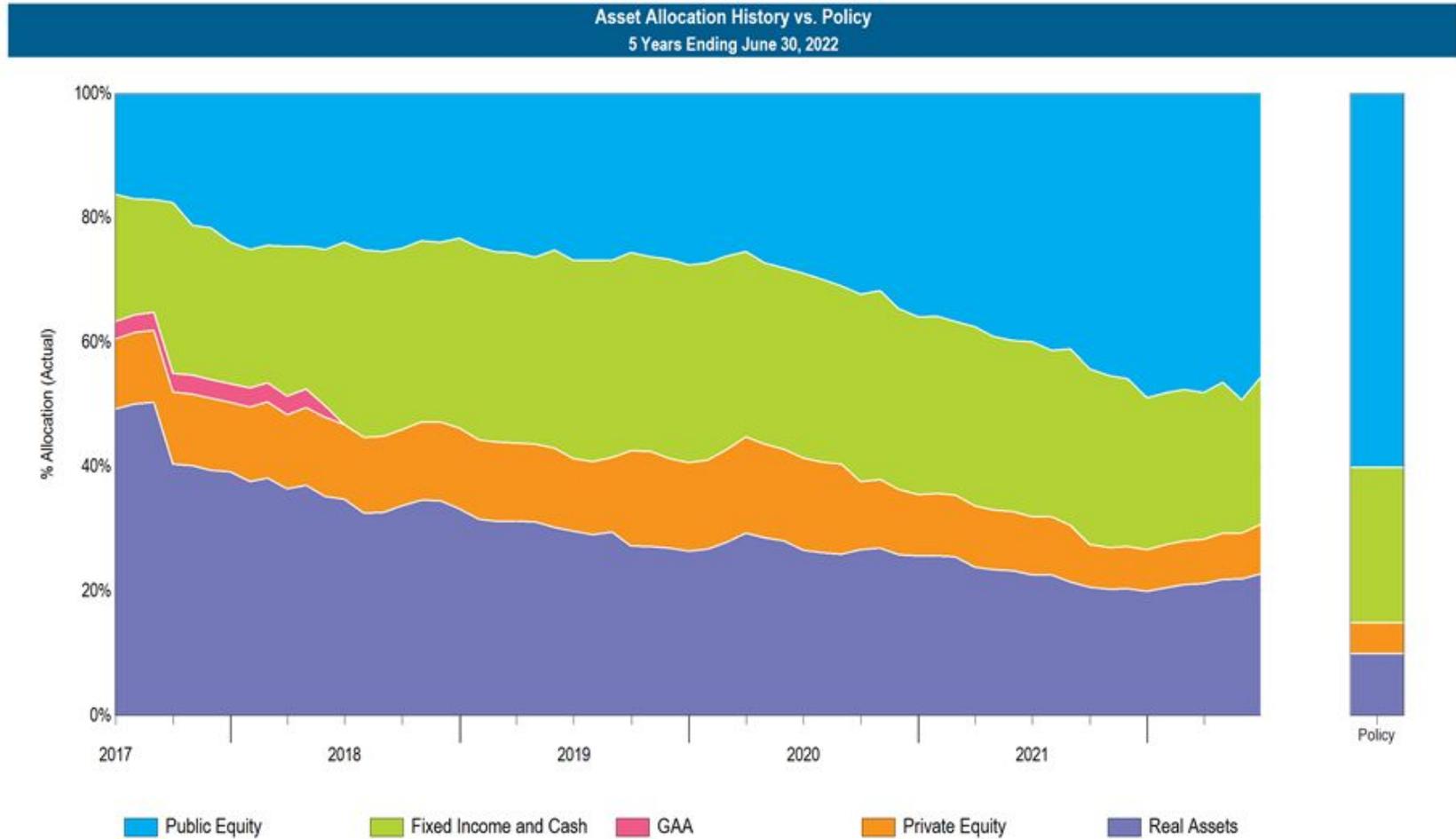
<sup>2</sup> Global equity consists of 23% US, 16% Developed Non-US, and 2% Emerging Markets.

<sup>3</sup> Rebalancing ranges are not established for illiquid assets (Private Equity, Private Debt, Natural Resources, Infrastructure and Real Estate).



Dallas Police & Fire Pension System

DPFP | As of June 30, 2022





## Dallas Police & Fire Pension System

DPFP | As of June 30, 2022

Statistics Summary						
5 Years Ending June 30, 2022						
	Anlzd Return	Anlzd Standard Deviation	Information Ratio	Beta	Sharpe Ratio	Tracking Error
DPFP	1.3%	6.9%	-0.7	0.6	0.0	5.1%
Policy Index	4.7%	9.4%	--	1.0	0.4	0.0%
Public Equity	6.9%	16.1%	0.1	1.0	0.4	2.2%
MSCI ACWI IMI Net USD	6.7%	16.5%	--	1.0	0.3	0.0%
Global Equity	7.1%	16.6%	0.2	1.0	0.4	2.2%
MSCI ACWI IMI Net USD	6.7%	16.5%	--	1.0	0.3	0.0%
Private Equity	-10.3%	25.7%	-1.0	0.1	-0.4	29.4%
Russell 3000 +3% 1-Quarter Lag	18.8%	16.4%	--	1.0	1.1	0.0%
Short Term Core Bonds	1.4%	1.6%	0.4	1.0	0.2	1.0%
Bloomberg US Aggregate 1-3 Yr TR	1.0%	1.3%	--	1.0	0.0	0.0%
Bank Loans	3.1%	4.7%	0.0	0.6	0.4	2.8%
Credit Suisse Leveraged Loan	3.0%	7.0%	--	1.0	0.3	0.0%
High Yield Bonds	0.4%	9.2%	-1.0	1.1	-0.1	1.7%
Bloomberg US Corporate High Yield TR	2.1%	8.4%	--	1.0	0.1	0.0%
Emerging Markets Debt	-4.9%	13.7%	-0.7	1.3	-0.4	4.5%
50% JPM EMBI/50% JPM GBI-EM	-1.7%	10.2%	--	1.0	-0.3	0.0%



## Dallas Police & Fire Pension System

DPFP | As of June 30, 2022

Statistics Summary						
5 Years Ending June 30, 2022						
	Anlzd Return	Anlzd Standard Deviation	Information Ratio	Beta	Sharpe Ratio	Tracking Error
Real Estate	1.9%	3.3%	-1.4	0.2	0.3	4.9%
NCREIF Property (1 Qtr Lag)	8.5%	4.8%	--	1.0	1.6	0.0%
Natural Resources	-0.4%	6.7%	-1.0	0.8	-0.2	6.3%
NCREIF Farmland Total Return Index (1 Qtr Lag)	6.2%	3.1%	--	1.0	1.6	0.0%
Infrastructure	4.5%	15.5%	0.0	0.1	0.2	21.8%
S&P Global Infrastructure TR USD	4.8%	17.2%	--	1.0	0.2	0.0%



Dallas Police & Fire Pension System

DPFP | As of June 30, 2022

Benchmark History		
As of June 30, 2022		
<b>DPFP</b>		
10/1/2021	Present	55% MSCI ACWI IMI Net USD / 5% MSCI Emerging Markets IMI Net / 5% Russell 3000 +3% 1-Quarter Lag / 6% Bloomberg US Aggregate 1-3 Yr TR / 4% Bloomberg US Corporate High Yield TR / 4% Bloomberg US Aggregate TR / 4% S&P/LSTA Leveraged Loan / 4% 50% JPM EMBI/50% JPM GBI-EM / 5% NCREIF Farmland Total Return Index (1 Qtr Lag) / 5% NCREIF Property (1 Qtr Lag) / 3% 91 Day T-Bills
8/1/2021	9/30/2021	55% MSCI ACWI IMI Net USD / 5% MSCI Emerging Markets IMI Net / 5% Cambridge Associates US All PE (1 Qtr Lag) / 6% Bloomberg US Aggregate 1-3 Yr TR / 4% Bloomberg US Corporate High Yield TR / 4% Bloomberg US Aggregate TR / 4% S&P/LSTA Leveraged Loan / 4% 50% JPM EMBI/50% JPM GBI-EM / 5% NCREIF Farmland Total Return Index (1 Qtr Lag) / 5% NCREIF Property (1 Qtr Lag) / 3% 91 Day T-Bills
1/1/2019	7/31/2021	40% MSCI ACWI IMI Net USD / 10% MSCI Emerging Markets IMI Net / 5% Cambridge Associates US All PE (1 Qtr Lag) / 12% Bloomberg US Aggregate 1-3 Yr TR / 4% Bloomberg Global Aggregate TR / 4% Bloomberg US Corporate High Yield TR / 4% Bloomberg US Aggregate TR / 4% S&P/LSTA Leveraged Loan / 4% 50% JPM EMBI/50% JPM GBI-EM / 5% NCREIF Farmland Total Return Index (1 Qtr Lag) / 5% NCREIF Property (1 Qtr Lag) / 3% 91 Day T-Bills
10/1/2018	12/31/2018	40% MSCI ACWI Gross / 10% MSCI Emerging Markets Gross / 5% Private Equity Custom Benchmark / 12% Bloomberg US Aggregate 1-3 Yr TR / 4% Bloomberg Global Aggregate TR / 4% Bloomberg US High Yield 2% Issuer Cap TR / 4% S&P/LSTA Leveraged Loan / 4% Bloomberg US Aggregate TR / 4% 50% JPM EMBI/50% JPM GBI-EM / 5% Natural Resources Benchmark (Linked) / 5% NCREIF Property Index / 3% 91 Day T-Bills
4/1/2016	9/30/2018	20% MSCI ACWI Gross / 5% MSCI Emerging Markets Gross / 5% Private Equity Custom Benchmark / 2% Bloomberg US Aggregate 1-3 Yr TR / 3% Bloomberg Global Aggregate TR / 5% Bloomberg Global High Yield TR / 6% S&P/LSTA Leveraged Loan / 6% HFRI RV: FI (50/50-ABS/Corp) / 6% 50% JPM EMBI/50% JPM GBI-EM / 5% Barclays Global High Yield +2% / 5% 60% MSCI ACWI/40% Barclays Global Agg / 3% 60% MSCI ACWI/40% Barclays Global Agg / 2% HFRX Absolute Return Index / 5% Natural Resources Benchmark (Linked) / 5% S&P Global Infrastructure TR USD / 12% NCREIF Property Index / 3% CPI + 5% (Seasonally Adjusted) / 2% 91 Day T-Bills
<b>Ashmore EM Blended Debt</b>		
12/1/2017	Present	50% JP Morgan EMBI Global Diversified / 25% JPM ELMI+ TR USD / 25% JP Morgan GBI EM Global Diversified TR USD
<b>Total Real Assets</b>		
12/31/2010	Present	50% NCREIF Property (1 Qtr Lag) / 50% NCREIF Farmland Total Return Index (1 Qtr Lag)
<b>Private Equity</b>		
10/1/2021	Present	Russell 3000 + 2% 1Q Lagged

## **Disclaimer, Glossary, and Notes**



## Disclaimer, Glossary, and Notes

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SIGNIFICANT EVENTS MAY OCCUR (OR HAVE OCCURRED) AFTER THE DATE OF THIS REPORT AND THAT IT IS NOT OUR FUNCTION OR RESPONSIBILITY TO UPDATE THIS REPORT. ANY OPINIONS OR RECOMMENDATIONS PRESENTED HEREIN REPRESENT OUR GOOD FAITH VIEWS AS OF THE DATE OF THIS REPORT AND ARE SUBJECT TO CHANGE AT ANY TIME. ALL INVESTMENTS INVOLVE RISK. THERE CAN BE NO GUARANTEE THAT THE STRATEGIES, TACTICS, AND METHODS DISCUSSED HERE WILL BE SUCCESSFUL.

INFORMATION USED TO PREPARE THIS REPORT WAS OBTAINED FROM INVESTMENT MANAGERS, CUSTODIANS, AND OTHER EXTERNAL SOURCES. WHILE WE HAVE EXERCISED REASONABLE CARE IN PREPARING THIS REPORT, WE CANNOT GUARANTEE THE ACCURACY OF ALL SOURCE INFORMATION CONTAINED HEREIN.

CERTAIN INFORMATION CONTAINED IN THIS REPORT MAY CONSTITUTE "FORWARD - LOOKING STATEMENTS," WHICH CAN BE IDENTIFIED BY THE USE OF TERMINOLOGY SUCH AS "MAY," "WILL," "SHOULD," "EXPECT," "AIM", "ANTICIPATE," "TARGET," "PROJECT," "ESTIMATE," "INTEND," "CONTINUE" OR "BELIEVE," OR THE NEGATIVES THEREOF OR OTHER VARIATIONS THEREON OR COMPARABLE TERMINOLOGY. ANY FORWARD-LOOKING STATEMENTS, FORECASTS, PROJECTIONS, VALUATIONS, OR RESULTS IN THIS PRESENTATION ARE BASED UPON CURRENT ASSUMPTIONS. CHANGES TO ANY ASSUMPTIONS MAY HAVE A MATERIAL IMPACT ON FORWARD - LOOKING STATEMENTS, FORECASTS, PROJECTIONS, VALUATIONS, OR RESULTS. ACTUAL RESULTS MAY THEREFORE BE MATERIALLY DIFFERENT FROM ANY FORECASTS, PROJECTIONS, VALUATIONS, OR RESULTS IN THIS PRESENTATION.

PERFORMANCE DATA CONTAINED HEREIN REPRESENT PAST PERFORMANCE. PAST PERFORMANCE IS NO GUARANTEE OF FUTURE RESULTS.



## Disclaimer, Glossary, and Notes

**Credit Risk:** Refers to the risk that the issuer of a fixed income security may default (i.e., the issuer will be unable to make timely principal and/or interest payments on the security).

**Duration:** Measure of the sensitivity of the price of a bond to a change in its yield to maturity. Duration summarizes, in a single number, the characteristics that cause bond prices to change in response to a change in interest rates. For example, the price of a bond with a duration of three years will rise by approximately 3% for each 1% decrease in its yield to maturity. Conversely, the price will decrease 3% for each 1% increase in the bond's yield. Price changes for two different bonds can be compared using duration. A bond with a duration of six years will exhibit twice the percentage price change of a bond with a three-year duration. The actual calculation of a bond's duration is somewhat complicated, but the idea behind the calculation is straightforward. The first step is to measure the time interval until receipt for each cash flow (coupon and principal payments) from a bond. The second step is to compute a weighted average of these time intervals. Each time interval is measured by the present value of that cash flow. This weighted average is the duration of the bond measured in years.

**Information Ratio:** This statistic is a measure of the consistency of a portfolio's performance relative to a benchmark. It is calculated by subtracting the benchmark return from the portfolio return (excess return), and dividing the resulting excess return by the standard deviation (volatility) of this excess return. A positive information ratio indicates outperformance versus the benchmark, and the higher the information ratio, the more consistent the outperformance.

**Jensen's Alpha:** A measure of the average return of a portfolio or investment in excess of what is predicted by its beta or "market" risk.  $\text{Portfolio Return} - [\text{Risk Free Rate} + \text{Beta} \times (\text{market return} - \text{Risk Free Rate})]$ .

**Market Capitalization:** For a firm, market capitalization is the total market value of outstanding common stock. For a portfolio, market capitalization is the sum of the capitalization of each company weighted by the ratio of holdings in that company to total portfolio holdings; thus it is a weighted-average capitalization. Meketa Investment Group considers the largest 65% of the broad domestic equity market as large capitalization, the next 25% of the market as medium capitalization, and the smallest 10% of stocks as small capitalization.

**Market Weighted:** Stocks in many indices are weighted based on the total market capitalization of the issue. Thus, the individual returns of higher market-capitalization issues will more heavily influence an index's return than the returns of the smaller market-capitalization issues in the index.

**Maturity:** The date on which a loan, bond, mortgage, or other debt/security becomes due and is to be paid off.

**Prepayment Risk:** The risk that prepayments will increase (homeowners will prepay all or part of their mortgage) when mortgage interest rates decline; hence, investors' monies will be returned to them in a lower interest rate environment. Also, the risk that prepayments will slow down when mortgage interest rates rise; hence, investors will not have as much money as previously anticipated in a higher interest rate environment. A prepayment is any payment in excess of the scheduled mortgage payment.

**Price-Book Value (P/B) Ratio:** The current market price of a stock divided by its book value per share. Meketa Investment Group calculates P/B as the current price divided by Compustat's quarterly common equity. Common equity includes common stock, capital surplus, retained earnings, and treasury stock adjusted for both common and nonredeemable preferred stock. Similar to high P/E stocks, stocks with high P/B's tend to be riskier investments.



## Disclaimer, Glossary, and Notes

**Price-Earnings (P/E) Ratio:** A stock's market price divided by its current or estimated future earnings. Lower P/E ratios often characterize stocks in low growth or mature industries, stocks in groups that have fallen out of favor, or stocks of established blue chip companies with long records of stable earnings and regular dividends. Sometimes a company that has good fundamentals may be viewed unfavorably by the market if it is an industry that is temporarily out of favor. Or a business may have experienced financial problems causing investors to be skeptical about its future. Either of these situations would result in lower relative P/E ratios. Some stocks exhibit above-average sales and earnings growth or expectations for above average growth. Consequently, investors are willing to pay more for these companies' earnings, which results in elevated P/E ratios. In other words, investors will pay more for shares of companies whose profits, in their opinion, are expected to increase faster than average. Because future events are in no way assured, high P/E stocks tend to be riskier and more volatile investments. Meketa Investment Group calculates P/E as the current price divided by the I/B/E/S consensus of twelve-month forecast earnings per share.

**Quality Rating:** The rank assigned a security by such rating services as Fitch, Moody's, and Standard & Poor's. The rating may be determined by such factors as (1) the likelihood of fulfillment of dividend, income, and principal payment of obligations; (2) the nature and provisions of the issue; and (3) the security's relative position in the event of liquidation of the company. Bonds assigned the top four grades (AAA, AA, A, BBB) are considered investment grade because they are eligible bank investments as determined by the controller of the currency.

**Sharpe Ratio:** A commonly used measure of risk-adjusted return. It is calculated by subtracting the risk free return (usually three-month Treasury bill) from the portfolio return and dividing the resulting excess return by the portfolio's total risk level (standard deviation). The result is a measure of return per unit of total risk taken. The higher the Sharpe ratio, the better the fund's historical risk adjusted performance.

**STIF Account:** Short-term investment fund at a custodian bank that invests in cash-equivalent instruments. It is generally used to safely invest the excess cash held by portfolio managers.

**Standard Deviation:** A measure of the total risk of an asset or a portfolio. Standard deviation measures the dispersion of a set of numbers around a central point (e.g., the average return). If the standard deviation is small, the distribution is concentrated within a narrow range of values. For a normal distribution, about two thirds of the observations will fall within one standard deviation of the mean, and 95% of the observations will fall within two standard deviations of the mean.

**Style:** The description of the type of approach and strategy utilized by an investment manager to manage funds. For example, the style for equities is determined by portfolio characteristics such as price-to-book value, price-to-earnings ratio, and dividend yield. Equity styles include growth, value, and core.

**Tracking Error:** A divergence between the price behavior of a position or a portfolio and the price behavior of a benchmark, as defined by the difference in standard deviation.



## Disclaimer, Glossary, and Notes

**Yield to Maturity:** The yield, or return, provided by a bond to its maturity date; determined by a mathematical process, usually requiring the use of a “basis book.” For example, a 5% bond pays \$5 a year interest on each \$100 par value. To figure its current yield, divide \$5 by \$95—the market price of the bond—and you get 5.26%. Assume that the same bond is due to mature in five years. On the maturity date, the issuer is pledged to pay \$100 for the bond that can be bought now for \$95. In other words, the bond is selling at a discount of 5% below par value. To figure yield to maturity, a simple and approximate method is to divide 5% by the five years to maturity, which equals 1% pro rata yearly. Add that 1% to the 5.26% current yield, and the yield to maturity is roughly 6.26%.

$$\frac{5\% \text{ (discount)}}{5 \text{ (yrs. to maturity)}} = 1\% \text{ pro rata, plus } 5.26\% \text{ (current yield)} = 6.26\% \text{ (yield to maturity)}$$

**Yield to Worst:** The lowest potential yield that can be received on a bond without the issuer actually defaulting. The yield to worst is calculated by making worst-case scenario assumptions on the issue by calculating the returns that would be received if provisions, including prepayment, call, or sinking fund, are used by the issuer.

**NCREIF Property Index (NPI):** Measures unleveraged investment performance of a very large pool of individual commercial real estate properties acquired in the private market by tax-exempt institutional investors for investment purposes only. The NPI index is capitalization-weighted for a quarterly time series composite total rate of return.

**NCREIF Fund Index - Open End Diversified Core Equity (NFI-ODCE):** Measures the investment performance of 28 open-end commingled funds pursuing a core investment strategy that reflects funds' leverage and cash positions. The NFI-ODCE index is equal-weighted and is reported gross and net of fees for a quarterly time series composite total rate of return.

Sources: [Investment Terminology](#), International Foundation of Employee Benefit Plans, 1999.  
[The Handbook of Fixed Income Securities](#), Fabozzi, Frank J., 1991

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Throughout this report, numbers may not sum due to rounding.

Returns for periods greater than one year are annualized throughout this report.

Values shown are in millions of dollars, unless noted otherwise.