

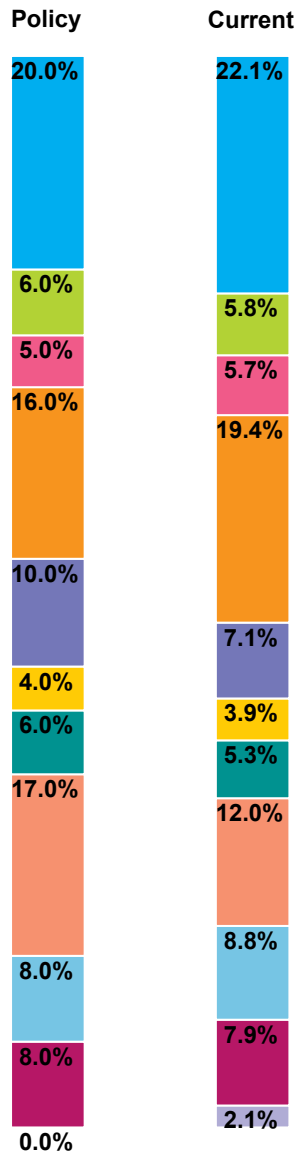
## Massachusetts Housing Finance Agency Retirement System

May 13, 2025

2025 Q1 Review

# **First Quarter 2025 Performance Review**

### Asset Allocation Compliance | As of March 31, 2025



### Allocation vs. Targets

	Balance (\$)	Current Allocation (%)	Policy (%)	Difference (%)	Policy Range (%)	Within IPS Range?
US Equity	56,800,056	22	20	2	15 - 25	Yes
Developed Market Equity	14,806,957	6	6	0	2 - 10	Yes
Emerging Market Equity	14,588,857	6	5	1	0 - 15	Yes
Investment Grade Bonds	49,957,169	19	16	3	11 - 21	Yes
TIPS	18,200,953	7	10	-3	5 - 15	Yes
Emerging Market Bonds	10,005,825	4	4	0	1 - 7	Yes
High Yield Bonds	13,603,929	5	6	-1	3 - 9	Yes
Private Equity	30,781,418	12	17	-5	12 - 22	No
Real Estate	22,497,200	9	8	1	5 - 11	Yes
Infrastructure	20,371,232	8	8	0	5 - 12	Yes
Cash	5,479,447	2	0	2	0 - 5	Yes
<b>Total</b>	<b>257,093,042</b>	<b>100</b>	<b>100</b>	<b>0</b>		

## Asset Allocation & Performance | As of March 31, 2025

Asset Class Performance Summary									
	Market Value \$	% of Portfolio	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
<b>Total Retirement System</b>	<b>257,093,042</b>	<b>100.0</b>	<b>0.6</b>	<b>4.4</b>	<b>4.1</b>	<b>10.2</b>	<b>7.1</b>	<b>6.1</b>	<b>Jul-01</b>
<i>60% MSCI ACWI / 40% Barclays Global Aggregate</i>			0.3	5.6	3.5	8.4	5.7	5.8	
<i>InvMetrics Public DB \$50mm-\$250mm Median</i>			-0.7	5.0	4.2	10.3	6.6	6.0	
Total Retirement System Rank			16	65	56	53	26	37	
<b>Domestic Equity Assets</b>	<b>56,800,056</b>	<b>22.1</b>	<b>-4.8</b>	<b>6.5</b>	<b>7.8</b>	<b>17.9</b>	<b>11.6</b>	<b>8.5</b>	<b>Jul-01</b>
<i>Russell 3000 Index</i>			-4.7	7.2	8.2	18.2	11.8	8.7	
<i>eV US Large Cap Equity Median</i>			-2.9	5.7	7.8	17.0	10.7	8.6	
Domestic Equity Assets Rank			65	41	50	37	34	55	
<b>Total International Developed Market Equity</b>	<b>14,806,957</b>	<b>5.8</b>	<b>6.3</b>	<b>4.7</b>	<b>4.7</b>	<b>11.5</b>	<b>5.5</b>	<b>6.1</b>	<b>Jul-01</b>
<i>MSCI EAFE (Net)</i>			6.9	4.9	6.1	11.8	5.4	5.5	
<i>eV EAFE Core Equity Median</i>			6.2	5.9	5.6	12.0	5.7	6.1	
Total International Developed Market Equity Rank			48	61	64	59	60	56	
<b>International Emerging Market Equity Assets</b>	<b>14,588,857</b>	<b>5.7</b>	<b>0.1</b>	<b>-3.5</b>	<b>6.1</b>	<b>11.5</b>	<b>4.5</b>	<b>2.5</b>	<b>Jul-07</b>
<i>MSCI Emerging Markets (Net)</i>			2.9	8.1	1.4	7.9	3.7	2.6	
<i>eV Emg Mkts Equity Median</i>			2.5	6.1	2.3	9.4	4.2	3.1	
International Emerging Market Equity Assets Rank			76	95	15	31	42	72	
<b>Investment Grade Bond Assets</b>	<b>49,957,169</b>	<b>19.4</b>	<b>2.8</b>	<b>5.3</b>	<b>1.2</b>	<b>0.8</b>	<b>2.0</b>	<b>3.9</b>	<b>Jul-01</b>
<i>Blmbg. U.S. Aggregate Index</i>			2.8	4.9	0.5	-0.4	1.5	3.6	
<i>eV US Core Fixed Inc Median</i>			2.7	5.0	0.7	0.2	1.7	3.9	
Investment Grade Bond Assets Rank			34	19	14	16	17	53	
<b>High Yield Bond Assets</b>	<b>13,603,929</b>	<b>5.3</b>	<b>0.5</b>	<b>7.2</b>	<b>4.1</b>	<b>7.6</b>	<b>4.6</b>	<b>5.8</b>	<b>Feb-05</b>
<i>Credit Suisse High Yield Index</i>			0.7	6.8	4.8	7.4	4.8	6.2	
<i>eV US High Yield Fixed Inc Median</i>			0.9	6.8	4.6	6.9	4.6	5.8	
High Yield Bond Assets Rank			79	29	74	28	45	54	

## Asset Allocation & Performance | As of March 31, 2025

	Market Value \$	% of Portfolio	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
<b>TIPS Assets</b>	<b>18,200,953</b>	<b>7.1</b>	<b>4.2</b>	<b>6.2</b>	<b>0.0</b>	<b>2.3</b>	<b>2.5</b>	<b>3.6</b>	<b>Jul-07</b>
<i>Blmbg. U.S. TIPS Index</i>			4.2	6.2	0.1	2.4	2.5	3.7	
<i>eV US TIPS / Inflation Fixed Inc Median</i>			4.1	6.2	0.1	2.4	2.5	3.6	
<i>TIPS Assets Rank</i>			39	59	66	62	62	37	
<b>Emerging Market Debt Assets</b>	<b>10,005,825</b>	<b>3.9</b>	<b>1.9</b>	<b>5.9</b>	<b>4.0</b>	<b>4.6</b>	<b>2.1</b>	<b>-0.4</b>	<b>Mar-13</b>
<i>50% JPM EMBI GD / 50% JPM GBI-EM</i>			3.3	5.4	3.1	2.9	2.3	1.3	
<b>Real Estate Assets</b>	<b>22,497,200</b>	<b>8.8</b>	<b>1.8</b>	<b>2.0</b>	<b>-3.1</b>	<b>3.1</b>	<b>6.0</b>	<b>5.3</b>	<b>Apr-05</b>
<i>NCREIF ODCE (Net)</i>			0.8	1.2	-5.1	2.0	4.7	5.4	
<b>Private Equity Assets</b>	<b>30,781,418</b>	<b>12.0</b>	<b>0.3</b>	<b>-1.1</b>	<b>2.6</b>	<b>14.4</b>	<b>12.7</b>	<b>8.4</b>	<b>Oct-03</b>
<i>Preqin Private Equity 1Q Lagged</i>			2.8	6.9	4.0	14.3	13.8	13.1	
<b>Infrastructure Assets</b>	<b>20,371,232</b>	<b>7.9</b>	<b>3.0</b>	<b>10.6</b>	<b>8.2</b>	<b>10.1</b>	<b>--</b>	<b>9.8</b>	<b>Oct-18</b>
<i>CPI +3% (Unadjusted)</i>			2.1	5.5	6.7	7.5	6.2	6.8	
<b>Cash</b>	<b>5,479,447</b>	<b>2.1</b>							

## Asset Allocation & Performance | As of March 31, 2025

	Trailing Net Performance								
	Market Value \$	% of Portfolio	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
<b>Total Retirement System</b>	<b>257,093,042</b>	<b>100.0</b>	<b>0.6</b>	<b>4.4</b>	<b>4.1</b>	<b>10.2</b>	<b>7.1</b>	<b>6.1</b>	<b>Jul-01</b>
<i>60% MSCI ACWI / 40% Barclays Global Aggregate</i>			<i>0.3</i>	<i>5.6</i>	<i>3.5</i>	<i>8.4</i>	<i>5.7</i>	<i>5.8</i>	
<i>InvMetrics Public DB \$50mm-\$250mm Median</i>			<i>-0.7</i>	<i>5.0</i>	<i>4.2</i>	<i>10.3</i>	<i>6.6</i>	<i>6.0</i>	
Total Retirement System Rank			16	65	56	53	26	37	
<b>Domestic Equity Assets</b>	<b>56,800,056</b>	<b>22.1</b>	<b>-4.8</b>	<b>6.5</b>	<b>7.8</b>	<b>17.9</b>	<b>11.6</b>	<b>8.5</b>	<b>Jul-01</b>
<i>Russell 3000 Index</i>			<i>-4.7</i>	<i>7.2</i>	<i>8.2</i>	<i>18.2</i>	<i>11.8</i>	<i>8.7</i>	
<i>eV US Large Cap Equity Median</i>			<i>-2.9</i>	<i>5.7</i>	<i>7.8</i>	<i>17.0</i>	<i>10.7</i>	<i>8.6</i>	
Domestic Equity Assets Rank			65	41	50	37	34	55	
SSgA Russell 1000 Value Index-NL	25,877,879	10.1	2.1	7.2	6.6	16.1	8.8	7.8	Jan-05
<i>Russell 1000 Value Index</i>			<i>2.1</i>	<i>7.2</i>	<i>6.6</i>	<i>16.1</i>	<i>8.8</i>	<i>7.9</i>	
<i>eV US Large Cap Value Equity Median</i>			<i>1.2</i>	<i>6.3</i>	<i>7.2</i>	<i>16.9</i>	<i>9.2</i>	<i>8.2</i>	
SSgA Russell 1000 Value Index-NL Rank			38	37	59	62	66	71	
SSgA Russell 1000 Growth-NL	26,799,589	10.4	-10.0	7.7	10.1	20.0	15.0	12.1	Jul-07
<i>Russell 1000 Growth Index</i>			<i>-10.0</i>	<i>7.8</i>	<i>10.1</i>	<i>20.1</i>	<i>15.1</i>	<i>12.2</i>	
<i>eV US Large Cap Growth Equity Median</i>			<i>-8.8</i>	<i>4.2</i>	<i>8.2</i>	<i>17.0</i>	<i>12.9</i>	<i>10.8</i>	
SSgA Russell 1000 Growth-NL Rank			68	19	22	11	8	8	
SSgA Russell 2000 Index-NL	4,122,588	1.6	-9.4	-4.0	0.6	13.3	6.3	9.5	Aug-10
<i>Russell 2000 Index</i>			<i>-9.5</i>	<i>-4.0</i>	<i>0.5</i>	<i>13.3</i>	<i>6.3</i>	<i>9.5</i>	
<i>eV US Small Cap Core Equity Median</i>			<i>-8.2</i>	<i>-3.1</i>	<i>2.4</i>	<i>15.5</i>	<i>7.3</i>	<i>10.5</i>	
SSgA Russell 2000 Index-NL Rank			75	56	75	78	81	82	

## Asset Allocation & Performance | As of March 31, 2025

	Market Value \$	% of Portfolio	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
<b>Total International Developed Market Equity</b>	<b>14,806,957</b>	<b>5.8</b>	<b>6.3</b>	<b>4.7</b>	<b>4.7</b>	<b>11.5</b>	<b>5.5</b>	<b>6.1</b>	<b>Jul-01</b>
<i>MSCI EAFE (Net)</i>			6.9	4.9	6.1	11.8	5.4	5.5	
eV EAFE Core Equity Median			6.2	5.9	5.6	12.0	5.7	6.1	
Total International Developed Market Equity Rank			48	61	64	59	60	56	
<b>SSgA MSCI EAFE Index-NL</b>	<b>11,654,694</b>	<b>4.5</b>	<b>7.0</b>	<b>5.1</b>	<b>6.3</b>	<b>12.0</b>	<b>5.7</b>	<b>6.4</b>	<b>Aug-10</b>
<i>MSCI EAFE (Net)</i>			6.9	4.9	6.1	11.8	5.4	6.2	
eV EAFE Core Equity Median			6.2	5.9	5.6	12.0	5.7	6.9	
SSgA MSCI EAFE Index-NL Rank			39	60	36	50	52	73	
<b>SSgA MSCI EAFE Small Cap Index-NL</b>	<b>3,152,263</b>	<b>1.2</b>	<b>3.7</b>	<b>3.2</b>	<b>1.1</b>	<b>9.9</b>	<b>5.4</b>	<b>6.9</b>	<b>Aug-10</b>
<i>MSCI EAFE Small Cap (Net)</i>			3.7	3.1	0.9	9.9	5.3	6.9	
eV EAFE Small Cap Core Median			4.3	3.6	2.5	11.1	6.1	7.7	
SSgA MSCI EAFE Small Cap Index-NL Rank			63	53	63	62	68	66	
<b>International Emerging Market Equity Assets</b>	<b>14,588,857</b>	<b>5.7</b>	<b>0.1</b>	<b>-3.5</b>	<b>6.1</b>	<b>11.5</b>	<b>4.5</b>	<b>2.5</b>	<b>Jul-07</b>
<i>MSCI Emerging Markets (Net)</i>			2.9	8.1	1.4	7.9	3.7	2.6	
eV Emg Mkts Equity Median			2.5	6.1	2.3	9.4	4.2	3.1	
International Emerging Market Equity Assets Rank			76	95	15	31	42	72	
<b>GQG Partners Emerging Markets</b>	<b>10,572,084</b>	<b>4.1</b>	<b>-0.1</b>	<b>-3.7</b>	<b>6.0</b>	<b>12.4</b>	<b>--</b>	<b>8.0</b>	<b>Apr-19</b>
<i>MSCI Emerging Markets (Net)</i>			2.9	8.1	1.4	7.9	3.7	3.2	
eV Emg Mkts Equity Median			2.5	6.1	2.3	9.4	4.2	4.2	
GQG Partners Emerging Markets Rank			77	96	15	24	--	10	
<b>ABS Emerging Markets</b>	<b>4,016,773</b>	<b>1.6</b>	<b>0.4</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>0.4</b>	<b>Jan-25</b>
<i>MSCI Emerging Markets (Net)</i>			2.9	8.1	1.4	7.9	3.7	2.9	
eV Emg Mkts Equity Median			2.5	6.1	2.3	9.4	4.2	2.5	
ABS Emerging Markets Rank			73	--	--	--	--	73	

## Asset Allocation & Performance | As of March 31, 2025

	Market Value \$	% of Portfolio	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
<b>Investment Grade Bond Assets</b>	<b>49,957,169</b>	<b>19.4</b>	<b>2.8</b>	<b>5.3</b>	<b>1.2</b>	<b>0.8</b>	<b>2.0</b>	<b>3.9</b>	<b>Jul-01</b>
<i>Blmbg. U.S. Aggregate Index</i>			2.8	4.9	0.5	-0.4	1.5	3.6	
eV US Core Fixed Inc Median			2.7	5.0	0.7	0.2	1.7	3.9	
Investment Grade Bond Assets Rank			34	19	14	16	17	53	
<b>Longfellow Investment Grade Bond</b>	<b>49,957,169</b>	<b>19.4</b>	<b>2.8</b>	<b>5.3</b>	<b>1.2</b>	<b>0.8</b>	<b>--</b>	<b>1.9</b>	<b>Sep-17</b>
<i>Blmbg. U.S. Aggregate Index</i>			2.8	4.9	0.5	-0.4	1.5	1.2	
eV US Core Fixed Inc Median			2.7	5.0	0.7	0.2	1.7	1.5	
Longfellow Investment Grade Bond Rank			34	19	14	16	--	10	
<b>High Yield Bond Assets</b>	<b>13,603,929</b>	<b>5.3</b>	<b>0.5</b>	<b>7.2</b>	<b>4.1</b>	<b>7.6</b>	<b>4.6</b>	<b>5.8</b>	<b>Feb-05</b>
<i>Credit Suisse High Yield Index</i>			0.7	6.8	4.8	7.4	4.8	6.2	
eV US High Yield Fixed Inc Median			0.9	6.8	4.6	6.9	4.6	5.8	
High Yield Bond Assets Rank			79	29	74	28	45	54	
<b>Lord Abbett High Yield Core</b>	<b>13,603,929</b>	<b>5.3</b>	<b>0.5</b>	<b>7.2</b>	<b>4.1</b>	<b>7.6</b>	<b>--</b>	<b>4.3</b>	<b>Jul-19</b>
<i>Blmbg. U.S. Corp: High Yield Index</i>			1.0	7.7	5.0	7.3	5.0	4.5	
eV US High Yield Fixed Inc Median			0.9	6.8	4.6	6.9	4.6	4.3	
Lord Abbett High Yield Core Rank			79	29	76	27	--	49	



## Asset Allocation & Performance | As of March 31, 2025

	Market Value \$	% of Portfolio	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
<b>TIPS Assets</b>	<b>18,200,953</b>	<b>7.1</b>	<b>4.2</b>	<b>6.2</b>	<b>0.0</b>	<b>2.3</b>	<b>2.5</b>	<b>3.6</b>	<b>Jul-07</b>
<i>Blmbg. U.S. TIPS Index</i>			4.2	6.2	0.1	2.4	2.5	3.7	
<i>eV US TIPS / Inflation Fixed Inc Median</i>			4.1	6.2	0.1	2.4	2.5	3.6	
TIPS Assets Rank			39	59	66	62	62	37	
<b>SSgA TIPS-NL</b>	<b>18,200,953</b>	<b>7.1</b>	<b>4.2</b>	<b>6.2</b>	<b>0.0</b>	<b>2.3</b>	<b>2.4</b>	<b>3.6</b>	<b>Jul-07</b>
<i>Blmbg. U.S. TIPS Index</i>			4.2	6.2	0.1	2.4	2.5	3.7	
<i>eV US TIPS / Inflation Fixed Inc Median</i>			4.1	6.2	0.1	2.4	2.5	3.6	
SSgA TIPS-NL Rank			39	59	66	62	66	43	
<b>Emerging Market Debt Assets</b>	<b>10,005,825</b>	<b>3.9</b>	<b>1.9</b>	<b>5.9</b>	<b>4.0</b>	<b>4.6</b>	<b>2.1</b>	<b>-0.4</b>	<b>Mar-13</b>
<i>50% JPM EMBI GD / 50% JPM GBI-EM</i>			3.3	5.4	3.1	2.9	2.3	1.3	
Metlife Emerging Markets Debt	3,555,755	1.4	2.1	4.7	3.4	4.8	--	2.9	Nov-16
<i>MetLife Custom Benchmark</i>			3.0	6.3	3.7	3.6	2.9	2.5	
Aberdeen Emerging Markets Bond Fund	6,450,070	2.5	1.8	6.7	4.5	4.5	--	2.8	Dec-16
<i>JPM EMBI Global Diversified</i>			2.2	6.8	3.4	3.5	3.2	2.9	
<b>Real Estate Assets</b>	<b>22,497,200</b>	<b>8.8</b>	<b>1.8</b>	<b>2.0</b>	<b>-3.1</b>	<b>3.1</b>	<b>6.0</b>	<b>5.3</b>	<b>Apr-05</b>
<i>NCREIF ODCE (Net)</i>			0.8	1.2	-5.1	2.0	4.7	5.4	
Intercontinental U.S. REIF	8,896,020	3.5	0.5	-0.7	-6.6	0.8	5.1	5.3	Oct-14
<i>NCREIF ODCE (Net)</i>			0.8	1.2	-5.1	2.0	4.7	5.1	
AEW Core Property Trust	9,005,558	3.5	0.7	0.7	-3.8	3.4	5.2	5.4	Oct-14
<i>NCREIF ODCE (Net)</i>			0.8	1.2	-5.1	2.0	4.7	5.1	
AEW Partners IX, L.P.	4,595,622	1.8	6.8	10.5	8.8	--	--	-1.4	Apr-21
<i>NCREIF ODCE (Net)</i>			0.8	1.2	-5.1	2.0	4.7	2.1	

AEW Core Property Trust market value is preliminary as of 3/31/2025.  
 AEW Partners IX, L.P. market value is as of 12/31/2024 adjusted for subsequent cash flows.

## Asset Allocation & Performance | As of March 31, 2025

	Market Value \$	% of Portfolio	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
<b>Private Equity Assets</b>	<b>30,781,418</b>	<b>12.0</b>	<b>0.3</b>	<b>-1.1</b>	<b>2.6</b>	<b>14.4</b>	<b>12.7</b>	<b>8.4</b>	<b>Oct-03</b>
<i>Preqin Private Equity 1Q Lagged</i>			<i>2.8</i>	<i>6.9</i>	<i>4.0</i>	<i>14.3</i>	<i>13.8</i>	<i>13.1</i>	
Ascent Venture Partners - Fund V	581,907	0.2							
Ascent Venture Partners - Fund VI	1,291,498	0.5							
Constitution Capital Partners Ironsides III	27,710	0.0							
Constitution Capital Partners Ironsides IV	2,920,743	1.1							
Constitution Capital Partners Ironsides V	3,168,781	1.2							
Constitution Capital Direct IV	597,369	0.2							
Constitution Capital Direct V	3,572,426	1.4							
Constitution Capital Co-Investment Fund VI, L.P.	4,230,655	1.6							
Goldman Sachs PEP 2005	98,602	0.0							
HarbourVest Partners VIII	12,559	0.0							
HarbourVest Partners IX	1,450,939	0.6							
HarbourVest X Buyout Fund	5,270,193	2.0							
HarbourVest Partners XI	5,492,558	2.1							
HarbourVest Fund XII	2,065,478	0.8							
Mesirow Private Equity Fund IX	736,000	0.3							

HarbourVest Partners XI and Fund XII are as of 9/30/2024 adjusted for subsequent cash flows.  
 Remaining Private Equity Asset market values are as of 12/31/2024 adjusted for subsequent cash flows.

## Asset Allocation & Performance | As of March 31, 2025

	Market Value \$	% of Portfolio	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
<b>Infrastructure Assets</b>	<b>20,371,232</b>	<b>7.9</b>	<b>3.0</b>	<b>10.6</b>	<b>8.2</b>	<b>10.1</b>	<b>--</b>	<b>9.8</b>	<b>Oct-18</b>
<i>CPI +3% (Unadjusted)</i>			<i>2.1</i>	<i>5.5</i>	<i>6.7</i>	<i>7.5</i>	<i>6.2</i>	<i>6.8</i>	
IFM Global Infrastructure (U.S.), L.P.	20,371,232	7.9	3.0	10.6	8.2	10.1	--	9.8	Oct-18
<i>CPI +3% (Unadjusted)</i>			<i>2.1</i>	<i>5.5</i>	<i>6.7</i>	<i>7.5</i>	<i>6.2</i>	<i>6.8</i>	
<b>Cash</b>	<b>5,479,447</b>	<b>2.1</b>							
Cash STIF	5,479,447	2.1							

## Asset Allocation & Performance | As of March 31, 2025

	Calendar Year Performance							
	2024 (%)	2023 (%)	2022 (%)	2021 (%)	2020 (%)	2019 (%)	2018 (%)	2017 (%)
<b>Total Retirement System</b>	<b>7.8</b>	<b>11.2</b>	<b>-8.6</b>	<b>16.2</b>	<b>14.1</b>	<b>17.4</b>	<b>-3.2</b>	<b>14.3</b>
<i>60% MSCI ACWI / 40% Barclays Global Aggregate</i>	<i>9.5</i>	<i>15.4</i>	<i>-17.3</i>	<i>8.8</i>	<i>14.0</i>	<i>18.6</i>	<i>-6.0</i>	<i>17.1</i>
<b>Domestic Equity Assets</b>	<b>22.8</b>	<b>24.3</b>	<b>-18.2</b>	<b>25.2</b>	<b>21.5</b>	<b>30.8</b>	<b>-5.6</b>	<b>20.9</b>
<i>Russell 3000 Index</i>	<i>23.8</i>	<i>26.0</i>	<i>-19.2</i>	<i>25.7</i>	<i>20.9</i>	<i>31.0</i>	<i>-5.2</i>	<i>21.1</i>
SSgA Russell 1000 Value Index-NL	14.4	11.4	-7.6	25.1	2.8	26.5	-8.3	13.7
<i>Russell 1000 Value Index</i>	<i>14.4</i>	<i>11.5</i>	<i>-7.5</i>	<i>25.2</i>	<i>2.8</i>	<i>26.5</i>	<i>-8.3</i>	<i>13.7</i>
SSgA Russell 1000 Growth-NL	33.3	42.7	-29.2	27.5	38.4	36.3	-1.8	30.1
<i>Russell 1000 Growth Index</i>	<i>33.4</i>	<i>42.7</i>	<i>-29.1</i>	<i>27.6</i>	<i>38.5</i>	<i>36.4</i>	<i>-1.5</i>	<i>30.2</i>
SSgA Russell 2000 Index-NL	11.5	17.0	-20.3	14.9	19.9	25.5	-11.0	14.6
<i>Russell 2000 Index</i>	<i>11.5</i>	<i>16.9</i>	<i>-20.4</i>	<i>14.8</i>	<i>20.0</i>	<i>25.5</i>	<i>-11.0</i>	<i>14.6</i>
<b>Total International Developed Market Equity</b>	<b>3.5</b>	<b>16.6</b>	<b>-16.4</b>	<b>10.9</b>	<b>9.2</b>	<b>23.1</b>	<b>-14.8</b>	<b>27.3</b>
<i>MSCI EAFE (Net)</i>	<i>3.8</i>	<i>18.2</i>	<i>-14.5</i>	<i>11.3</i>	<i>7.8</i>	<i>22.0</i>	<i>-13.8</i>	<i>25.0</i>
SSgA MSCI EAFE Index-NL	4.0	18.5	-14.2	11.4	8.2	22.4	-13.6	25.4
<i>MSCI EAFE (Net)</i>	<i>3.8</i>	<i>18.2</i>	<i>-14.5</i>	<i>11.3</i>	<i>7.8</i>	<i>22.0</i>	<i>-13.8</i>	<i>25.0</i>
SSgA MSCI EAFE Small Cap Index-NL	1.8	13.4	-21.1	9.9	12.2	24.7	-17.8	33.0
<i>MSCI EAFE Small Cap (Net)</i>	<i>1.8</i>	<i>13.2</i>	<i>-21.4</i>	<i>10.1</i>	<i>12.3</i>	<i>25.0</i>	<i>-17.9</i>	<i>33.0</i>
<b>International Emerging Market Equity Assets</b>	<b>7.0</b>	<b>30.3</b>	<b>-21.2</b>	<b>-1.5</b>	<b>24.6</b>	<b>15.8</b>	<b>-17.9</b>	<b>31.8</b>
<i>MSCI Emerging Markets (Net)</i>	<i>7.5</i>	<i>9.8</i>	<i>-20.1</i>	<i>-2.5</i>	<i>18.3</i>	<i>18.4</i>	<i>-14.6</i>	<i>37.3</i>
GQG Partners Emerging Markets	6.9	30.3	-21.2	-1.5	33.9	--	--	--
<i>MSCI Emerging Markets (Net)</i>	<i>7.5</i>	<i>9.8</i>	<i>-20.1</i>	<i>-2.5</i>	<i>18.3</i>	<i>18.4</i>	<i>-14.6</i>	<i>37.3</i>
ABS Emerging Markets	--	--	--	--	--	--	--	--
<i>MSCI Emerging Markets (Net)</i>	<i>7.5</i>	<i>9.8</i>	<i>-20.1</i>	<i>-2.5</i>	<i>18.3</i>	<i>18.4</i>	<i>-14.6</i>	<i>37.3</i>

## Asset Allocation & Performance | As of March 31, 2025

	2024 (%)	2023 (%)	2022 (%)	2021 (%)	2020 (%)	2019 (%)	2018 (%)	2017 (%)
<b>Investment Grade Bond Assets</b>	<b>2.1</b>	<b>6.8</b>	<b>-13.1</b>	<b>-0.2</b>	<b>9.2</b>	<b>8.9</b>	<b>-0.1</b>	<b>3.5</b>
<i>Blmbg. U.S. Aggregate Index</i>	<i>1.3</i>	<i>5.5</i>	<i>-13.0</i>	<i>-1.5</i>	<i>7.5</i>	<i>8.7</i>	<i>0.0</i>	<i>3.5</i>
Longfellow Investment Grade Bond	2.1	6.8	-13.1	-0.2	9.2	8.9	-0.1	--
<i>Blmbg. U.S. Aggregate Index</i>	<i>1.3</i>	<i>5.5</i>	<i>-13.0</i>	<i>-1.5</i>	<i>7.5</i>	<i>8.7</i>	<i>0.0</i>	<i>3.5</i>
<b>High Yield Bond Assets</b>	<b>8.8</b>	<b>12.1</b>	<b>-13.0</b>	<b>5.8</b>	<b>8.6</b>	<b>15.5</b>	<b>-3.7</b>	<b>6.8</b>
<i>Credit Suisse High Yield Index</i>	<i>7.9</i>	<i>13.6</i>	<i>-10.6</i>	<i>5.5</i>	<i>5.5</i>	<i>14.0</i>	<i>-2.4</i>	<i>7.0</i>
Lord Abbett High Yield Core	8.8	12.1	-12.9	5.8	8.6	--	--	--
<i>Blmbg. U.S. Corp: High Yield Index</i>	<i>8.2</i>	<i>13.4</i>	<i>-11.2</i>	<i>5.3</i>	<i>7.1</i>	<i>14.3</i>	<i>-2.1</i>	<i>7.5</i>
<b>TIPS Assets</b>	<b>1.9</b>	<b>3.9</b>	<b>-12.0</b>	<b>5.9</b>	<b>10.9</b>	<b>8.4</b>	<b>-1.3</b>	<b>3.0</b>
<i>Blmbg. U.S. TIPS Index</i>	<i>1.8</i>	<i>3.9</i>	<i>-11.8</i>	<i>6.0</i>	<i>11.0</i>	<i>8.4</i>	<i>-1.3</i>	<i>3.0</i>
SSgA TIPS-NL	1.9	3.9	-12.0	5.9	10.9	8.4	-1.3	2.9
<i>Blmbg. U.S. TIPS Index</i>	<i>1.8</i>	<i>3.9</i>	<i>-11.8</i>	<i>6.0</i>	<i>11.0</i>	<i>8.4</i>	<i>-1.3</i>	<i>3.0</i>
<b>Emerging Market Debt Assets</b>	<b>6.3</b>	<b>13.3</b>	<b>-15.3</b>	<b>-4.0</b>	<b>5.5</b>	<b>14.9</b>	<b>-7.1</b>	<b>13.1</b>
<i>50% JPM EMBI GD / 50% JPM GBI-EM</i>	<i>2.0</i>	<i>11.9</i>	<i>-14.8</i>	<i>-5.3</i>	<i>4.0</i>	<i>14.3</i>	<i>-5.2</i>	<i>12.7</i>
Metlife Emerging Markets Debt	4.0	12.6	-13.3	-3.7	6.1	14.5	-6.6	13.4
<i>MetLife Custom Benchmark</i>	<i>3.9</i>	<i>10.7</i>	<i>-13.5</i>	<i>-2.9</i>	<i>5.4</i>	<i>13.7</i>	<i>-4.0</i>	<i>10.6</i>
Aberdeen Emerging Markets Bond Fund	7.8	13.8	-16.6	-4.0	5.0	15.3	-7.5	12.7
<i>JPM EMBI Global Diversified</i>	<i>6.5</i>	<i>11.1</i>	<i>-17.8</i>	<i>-1.8</i>	<i>5.3</i>	<i>15.0</i>	<i>-4.3</i>	<i>10.3</i>

## Asset Allocation & Performance | As of March 31, 2025

	2024 (%)	2023 (%)	2022 (%)	2021 (%)	2020 (%)	2019 (%)	2018 (%)	2017 (%)
<b>Real Estate Assets</b>	<b>-1.5</b>	<b>-10.6</b>	<b>7.8</b>	<b>19.4</b>	<b>0.5</b>	<b>8.1</b>	<b>8.3</b>	<b>8.4</b>
<i>NCREIF ODCE (Net)</i>	<i>-2.3</i>	<i>-12.7</i>	<i>6.5</i>	<i>21.0</i>	<i>0.3</i>	<i>4.4</i>	<i>7.4</i>	<i>6.7</i>
Intercontinental U.S. REIF	-5.0	-16.0	7.4	20.0	1.0	8.2	9.3	7.5
<i>NCREIF ODCE (Net)</i>	<i>-2.3</i>	<i>-12.7</i>	<i>6.5</i>	<i>21.0</i>	<i>0.3</i>	<i>4.4</i>	<i>7.4</i>	<i>6.7</i>
AEW Core Property Trust	-1.1	-10.3	7.8	20.8	0.3	5.1	6.6	6.6
<i>NCREIF ODCE (Net)</i>	<i>-2.3</i>	<i>-12.7</i>	<i>6.5</i>	<i>21.0</i>	<i>0.3</i>	<i>4.4</i>	<i>7.4</i>	<i>6.7</i>
AEW Partners IX, L.P.	5.9	6.5	5.6	--	--	--	--	--
<i>NCREIF ODCE (Net)</i>	<i>-2.3</i>	<i>-12.7</i>	<i>6.5</i>	<i>21.0</i>	<i>0.3</i>	<i>4.4</i>	<i>7.4</i>	<i>6.7</i>
<b>Private Equity Assets</b>	<b>0.0</b>	<b>3.3</b>	<b>11.1</b>	<b>46.1</b>	<b>25.3</b>	<b>15.7</b>	<b>13.7</b>	<b>11.8</b>
<i>Preqin Private Equity 1Q Lagged</i>	<i>5.9</i>	<i>7.6</i>	<i>2.9</i>	<i>44.7</i>	<i>17.0</i>	<i>10.2</i>	<i>15.7</i>	<i>18.0</i>
Ascent Venture Partners - Fund V								
Ascent Venture Partners - Fund VI								
Constitution Capital Partners Ironsides III								
Constitution Capital Partners Ironsides IV								
Constitution Capital Partners Ironsides V								
Constitution Capital Direct IV								
Constitution Capital Direct V								
Constitution Capital Co-Investment Fund VI, L.P.								
Goldman Sachs PEP 2005								
HarbourVest Partners VIII								
HarbourVest Partners IX								
HarbourVest X Buyout Fund								

## Asset Allocation & Performance | As of March 31, 2025

	2024 (%)	2023 (%)	2022 (%)	2021 (%)	2020 (%)	2019 (%)	2018 (%)	2017 (%)
HarbourVest Partners XI								
HarbourVest Fund XII								
Mesirow Private Equity Fund IX								
<b>Infrastructure Assets</b>	<b>6.2</b>	<b>8.4</b>	<b>8.2</b>	<b>17.4</b>	<b>3.1</b>	<b>14.6</b>	<b>--</b>	<b>--</b>
<i>CPI +3% (Unadjusted)</i>	<i>6.0</i>	<i>6.4</i>	<i>9.6</i>	<i>10.2</i>	<i>4.4</i>	<i>5.3</i>	<i>5.0</i>	<i>5.2</i>
IFM Global Infrastructure (U.S.), L.P.	6.2	8.4	8.2	17.4	3.1	14.6	--	--
<i>CPI +3% (Unadjusted)</i>	<i>6.0</i>	<i>6.4</i>	<i>9.6</i>	<i>10.2</i>	<i>4.4</i>	<i>5.3</i>	<i>5.0</i>	<i>5.2</i>
<b>Cash</b>								
Cash STIF								

Benchmark History

From Date	To Date	Benchmark
<b>Metlife Emerging Markets Debt</b>		
02/01/2002	Present	30.0% JPM GBI-EM Global Diversified, 35.0% JPM CEMBI Broad Diversified Index, 35.0% JPM EMBI Global Index (USD)



	Risk Return Statistics	
	3 Yrs (%)	5 Yrs (%)
	Total Retirement System	Total Retirement System
<b>RETURN SUMMARY STATISTICS</b>		
Maximum Return	4.6	5.7
Minimum Return	-4.4	-4.4
Return	4.1	10.2
Excess Return	0.2	7.5
Excess Performance	0.6	1.8
<b>RISK SUMMARY STATISTICS</b>		
Beta	0.6	0.6
Upside Risk	5.9	7.2
Downside Risk	4.9	4.1
<b>RISK/RETURN SUMMARY STATISTICS</b>		
Standard Deviation	7.5	7.8
Sortino Ratio	0.0	1.7
Alpha	1.8	4.7
Sharpe Ratio	0.0	1.0
Excess Risk	7.4	7.9
Tracking Error	5.4	5.2
Information Ratio	0.0	0.2
<b>CORRELATION STATISTICS</b>		
R-Squared	1.0	0.9
Actual Correlation	1.0	0.9

### Closed End Funds Overview

Fund	Vintage Year	Committed (\$mm)	Called (\$mm)	Distributed (\$mm)	Fair Value (\$mm)	Net IRR <sup>1</sup> (%)
AEW Partners IX, L.P.	2019	5.0	4.2	0.5	4.6	8.2
Ascent Venture Partners – Fund V	2011	1.0	1.0	0.9	0.6	5.6
Ascent Venture Partners – Fund VI	2015	1.5	1.5	0.2	1.3	0.3
Constitution Capital Partnership Ironsides III	2014	5.0	6.7	13.4	0.0	23.4 <sup>2</sup>
Constitution Capital Partnership Ironsides IV	2016	3.3	3.8	4.3	2.9	24.9
Constitution Capital Partnership Ironsides V	2020	2.5	2.3	0.3	3.2	17.0
Constitution Capital Partnership Ironsides VII <sup>3</sup>	2025	8.0	N/A	N/A	N/A	N/A
Constitution Capital Direct IV	2016	3.3	3.9	5.6	0.6	16.6
Constitution Capital Direct V	2019	2.5	3.1	1.8	3.6	14.9
Constitution Capital Co-Investment Fund VI	2021	4.0	4.0	0.9	4.2	11.5
Goldman Sachs PEP 2005	2006	2.3	2.4	3.0	0.1	4.4

<sup>1</sup> As of December 31, 2024.

<sup>2</sup> Most recent reported value as of June 30, 2024.

<sup>3</sup> Constitution Capital Partnership Ironsides VII has not called capital.

Fund	Vintage Year	Committed (\$mm)	Called (\$mm)	Distributed (\$mm)	Fair Value (\$mm)	Net IRR <sup>1</sup> (%)
HarbourVest Partners VIII	2006	2.5	2.4	4.4	0.0	10.6
HarbourVest Partners IX	2010	5.0	4.4	8.0	1.5	17.3 <sup>2</sup>
HarbourVest Partners XIII <sup>3</sup>	2025	8.0	N/A	N/A	N/A	N/A
HarbourVest X Buyout Fund	2016	6.5	5.6	4.8	5.3	20.0 <sup>2</sup>
HarbourVest Partners XI	2019	5.0	4.3	1.2	5.5	19.8 <sup>2</sup>
HarbourVest Fund XII	2019	4.0	1.6	0.0	2.0	15.3 <sup>2</sup>
Mesirow Private Equity Fund IX <sup>4</sup>	2025	8.0	0.7	N/A	N/A	N/A

<sup>1</sup> As of December 31, 2024.

<sup>2</sup> Most recent reported value as of September 30, 2024.

<sup>3</sup> HarbourVest Partners XIII has not called capital.

<sup>4</sup> Mesirow Private Equity Fund IX called capital in February 2025.

# Appendices

## Corporate Update



**\$2.3T**  
Assets Under  
Advisement

**\$380B**  
Assets in Alternative  
Investments

Meketa Investment Group is proud to work for over 25 million American families everyday!

**UPCOMING EVENTS**  
Q1 Investment Perspectives Webcast  
April 2025

Client and employee counts as of December 31, 2024; assets under advisement as of June 30, 2024; assets in alternative investments as of December 31, 2024.

Client retention rate is one minus the number of clients lost divided by the number of clients at prior year-end. Average over the previous five years.

## THOUGHT LEADERSHIP



### Can US Listed Companies Sustain Earnings Growth?

With prices for the US equity market approaching all-time highs, the market is discounting significant earnings growth to justify higher valuations. The earnings growth rates US stocks have achieved in the post-GFC period could support these valuations if these growth rates are sustainable.

This paper provides an overview of some variables historically associated with earnings growth to help predict future earnings growth for the broad equity market. It also addresses differences in these factors between the US and other markets that may be driving disparities in earnings growth and valuations relative to non-US markets.

Read more here:

<https://meketa.com/leadership/can-listed-us-companies-sustain-earnings-growth/>



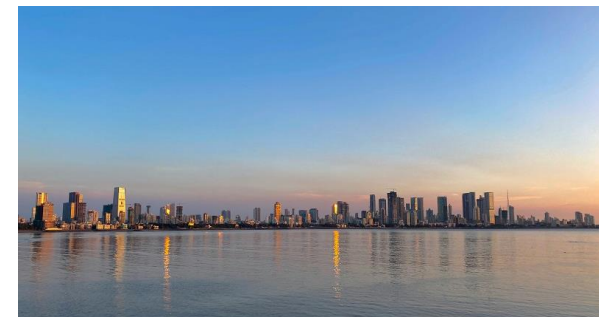
### Re-underwriting a Portfolio: A Strategic Discipline for Institutional Investors and Why it Matters

Re-underwriting a portfolio isn't about short-term market timing; it's about thinking through portfolio construction and raising the possibilities of achieving the institution's financial goals.

With inflation, interest rates, liquidity constraints, and geopolitical risks reshaping the investment environment, a disciplined reassessment of the portfolio, its underlying asset classes, and the managers that fill those asset classes is critical for risk management and value creation. Peter Woolley, Co-CEO, answers six questions that investment decision-makers should consider when re-underwriting their portfolio.

Read more here:

<https://meketa.com/news/meketa-connectives-re-underwriting-a-portfolio-a-strategic-discipline-for-institutional-investors-and-why-it-matters/>



### The Next AI Powerhouse: India's Bold Bet on AI Dominance

The race for artificial intelligence (AI) leadership is a global endeavor with economic and investment implications.

While the US and China have grabbed most of the headlines, India also seeks to be a serious contender. India recently announced the "AI for India 2030" initiative, which is intended to drive AI adoption and to help India along its path of economic development.

Read more here:

<https://meketa.com/news/meketa-connectives-the-next-ai-powerhouse-indias-bold-bet-on-ai-dominance/>

ANNOUNCING  
OUR NEWEST  
SHAREHOLDERS  
2025



**Laura Morgan**

Managing Principal /  
Director of Human Resources



**Erika Olson**

Managing Principal / Director of  
Public Markets Manager Research



**Jared Pratt**

Managing Principal / Consultant



# HONORS AND AWARDS FOR MEKETA'S DECORATED LEADERS



Congratulations to Meketa's **Christy Fields** on being selected to Kayo Conference Series' Top 25 in '25: Trailblazing Institutional Investors in Real Estate list! This well-earned recognition highlights Christy's leadership and deep expertise in the dynamic real estate sector. We're grateful for Christy's many contributions to Meketa and proud to have her on our team. View the full list here: <https://kayoconferenceseries.com/top-25-in-25-trailblazing-institutional-investors-in-real-estate/>



Our own **Hannah Schriener, CAIA** and **Lauren Giordano** enjoyed attending last week's Defined Contribution Institutional Investment Association (DCIIA) Leader and Rising Star Awards celebration. We're proud to see Hannah and Lauren receive these well deserved honors and are grateful for their contributions to our firm. View the full list of DCIIA's Leader and Rising Stars here: <https://dciia.org/page/2024RisingStarSLeaders>



Congratulations to our own **Judy Chambers** on being selected as one of Institutional Investor's Women in Investment Management 2025 leaders! This honor recognizes allocators who have demonstrated excellence and innovation in the alternatives and private markets arena. The honorees were celebrated at the AlphaEdge North America conference, where Judy also moderated a panel on alternatives.

# A GATEWAY TO SMARTER, MORE INFORMED DECISION MAKING

MEKETA essentials is our proprietary digital platform that puts powerful tools and insights at your fingertips. Designed exclusively for Meketa clients, it integrates four decades of institutional investment expertise into a single resource to support asset allocation, portfolio construction, manager due diligence, and performance analysis.

Whether you're analyzing portfolio risk, evaluating public or private market managers, or accessing our latest thought leadership, MEKETA essentials offers a comprehensive suite of tools to help you.

New this quarter we have released a [helpful brochure](#) to assist in navigating our MEKETA essentials toolkit with ease.



### Manage Portfolios

**Asset Allocation** | Using our extensive, annually updated Capital Market Expectations, MEKETA essentials Asset Allocation is an advanced risk management tool designed to provide a comprehensive perspective on diversification and its potential benefits.

**Portfolio Builder** | With more than 6,000 investment products accessible, Portfolio Builder allows you to quantitatively analyze and compare portfolio construction options.



### Research Investment Managers

**Public and Private Markets Research** Meketa's Public and Private Markets research includes current and historical notes and due diligence reports as well as performance and benchmark data.



### Review Portfolio Dashboard

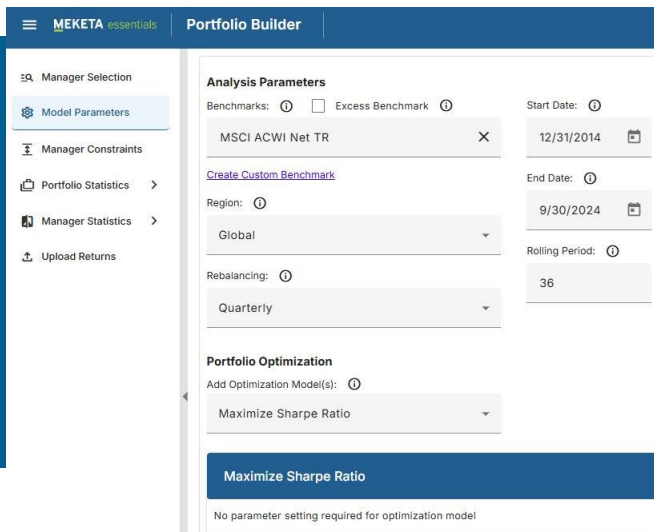
For clients that use Meketa for private markets reporting, MEKETA essentials provides a single point of access for manager performance reporting as well as essential access to manager documents.



### Access Thought Leadership

Provides users current and historical access to Meketa's wide array of thought leadership, including our annual capital market expectations, research primers, asset class innovations and a wide variety of global macro thematic content.

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With Portfolio Builder, users are able to quantitatively analyze and compare different portfolio construction options from approximately 6,000 products while understanding the impact of each underlying manager. The tool includes a broad array of public markets and liquid alternatives managers, as well as provides the ability for a user to upload managers. It allows for analysis and optimization of portfolios as well as screening by factors such as asset class, strategy, and Meketa rating.

“Combining both the art and science of portfolio construction, Portfolio Builder provides clients the ability to understand how changing managers and adjusting investments can impact portfolio risk and performance.”

**Stella Mach**  
Quantitative Analyst /Team Leader

## The Portfolio Builder tool can assist in answering questions such as...

- What is the information ratio of my current global equity allocation?
- What changes to my portfolio would optimize that information ratio?
- If I were to change the allocations to the managers in my US equity allocation, how would that impact my factor exposures?
- What impact would a change to my fixed income portfolio have had during the recent increase in interest rates?
- How would introducing a new manager affect the tracking error versus my benchmark and my overall risk exposure?

### MEKETA IN THE COMMUNITY



#### LA Wildfires

In early 2025, Los Angeles County, California suffered from a series of devastating wildfires causing loss of life, homes, businesses, and historical landmarks.

To show our support for the region, Meketa donated \$5,000 and encouraged employees to donate to several foundations listed here.



#### Cycle for Survival

On February 8th Team Meketa was excited to return for our 6th year of continued success to participate in Cycle for Survival, a national campaign to raise money for Sloan Kettering Cancer Center research for rare cancers. The event is a high energy Spin Class for all levels of participation and **100% of the proceeds go to directly to cancer research.**



9 Employees Participated



# MEKETA IN THE NEWS

## WSJ PRO PRIVATE EQUITY

Private Credit's Consolidation Is More Complicated Than You Think [By Jennifer Rossa | February 24, 2025](#)

"I think two of the biggest drivers of our industry now tie to the insurance market and to the mass affluent retail market," said Mary Bates, managing principal at Meketa.

## FUNDfire

### Inst'l Investors Give Securitized Fixed Income Another Look

[By Justin Mitchell & Bridget Hickey | January 31, 2025](#)

Mark McKeown, managing principal and head of fixed income research at Meketa, said he's observed a "much stronger" level of interest in securitized products in recent months than over the past five years. But investors are still a bit skittish about these products following the 2008 global financial crisis, which was famously triggered by speculation around securitized mortgage products, he added.

"There is a hangover and there's hesitancy from certain types of investors from the [global financial crisis] experience," Mark McKeown, Meketa.

However, the market has changed since the crisis, Kerschner said. Securitized debt products were a new asset class that exploded in size, and ratings agencies have since changed their approach. New regulations following the crisis also aim to ensure these products will not trigger another collapse. "[T]he market learned their lesson that ... having a new asset class grow that quickly was not smart," he said. "We can walk institutional investors through that, and if we're allowed to do that, I think a lot of them can get comfortable that what happened then won't happen again."

Part of why there is opportunity in this asset class stems from the number of investors who still do not feel comfortable because of the financial crisis, but that is changing, due to the favorable spread between corporate bonds and securitized products and minimal interest rate risk, as well as the simple passage of time, McKeown said. "I think that's fading, but it definitely still exists," he said. These days, most of the attention in the securitized space is focused on collateralized debt obligations, or CDOs, auto loans, and credit cards, he added.

## fin|news

### Infrastructure Trends Promise Consistent Long-Term Returns For E&Fs [By Justin Slaughter | March 19, 2025](#)

That mammoth deal, which cost the BlackRock consortium \$22.8 billion, is just one indication of the growing opportunity set across the international private infrastructure space, driven by strong and steady demand, expanding diversity of the asset class and the physical and mandated revenue structures of infrastructure projects generally, according to Meketa Managing Principal and Infrastructure Program Lead Lisa Bacon. Bacon finds the confluence of factors is building a promising opportunity set for endowments and foundations seeking reliable strong returns over the long term. Ports are only one segment of the asset class as a large and growing swath of the opportunity set is related to electricity, demand for which will likely continue to expand, boosting the need for private dollars to build more infrastructure to produce, transport or store energy, Bacon said.

While demand has been building, the global opportunity set has evolved from being dominated by traditional energy power generation, transportation and utility infrastructure to encompass a broader range of assets, including "lower carbon businesses and assets, such as electric vehicle charging networks" as well as renewable energy, which is increasingly cheaper than traditional sources of energy like fossil fuels, according to Bacon. "The demand for energy and electricity isn't going away, it has been growing overall and changing its footprint. In many situations, one or more renewable power sources are the cheapest source of energy, even unsubsidized, and so are an attractive option to meet some of those demands, recognizing, at least today, they cannot satisfy the full demand," she said. Though public policies around renewable energy sources in the U.S. may be in flux today, "there are a lot of dynamics at play with this," according to Bacon, who finds that "with the exception of recent executive orders, a lot of those factors were pushing in the same direction, pushing the demand and supply for those investments with some velocity."

["I'm not trying to say infrastructure is everything to everybody, but there is a lot of flexibility," Bacon said.](#)

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**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.



**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.

**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.