



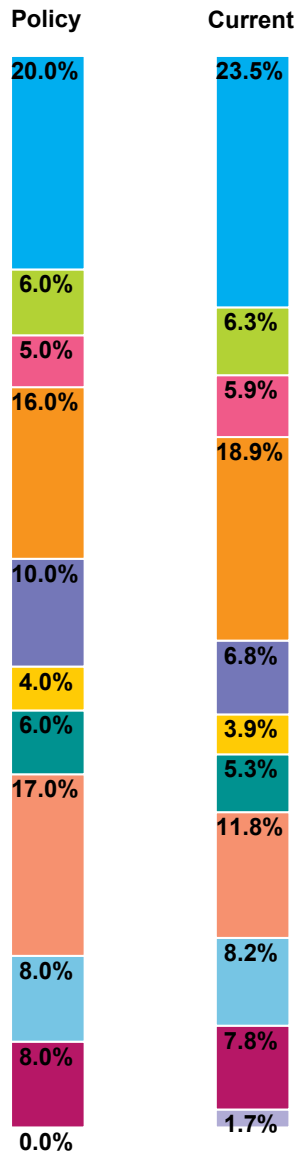
Massachusetts Housing Finance Agency Retirement System

August 12, 2025

2025 Q2 Review

Second Quarter 2025 Performance Review

Asset Allocation Compliance | As of June 30, 2025



		Allocation vs. Targets					
		Balance (\$)	Current Allocation (%)	Policy (%)	Difference (%)	Policy Range (%)	Within IPS Range?
<div></div>	US Equity	62,907,762	24	20	4	15 - 25	Yes
<div></div>	Developed Market Equity	16,725,193	6	6	0	2 - 10	Yes
<div></div>	Emerging Market Equity	15,716,650	6	5	1	0 - 15	Yes
<div></div>	Investment Grade Bonds	50,588,565	19	16	3	11 - 21	Yes
<div></div>	TIPS	18,291,477	7	10	-3	5 - 15	Yes
<div></div>	Emerging Market Bonds	10,414,808	4	4	0	1 - 7	Yes
<div></div>	High Yield Bonds	14,052,688	5	6	-1	3 - 9	Yes
<div></div>	Private Equity	31,593,174	12	17	-5	12 - 22	No
<div></div>	Real Estate	21,868,394	8	8	0	5 - 11	Yes
<div></div>	Infrastructure	20,890,251	8	8	0	5 - 12	Yes
<div></div>	Cash	4,536,949	2	0	2	0 - 5	Yes
Total		267,585,911	100	100	0		

Trailing Net Performance | As of June 30, 2025

Asset Class Performance Summary										
	Market Value (\$)	% of Portfolio	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Total Retirement System	267,585,911	100.0	4.4	5.1	8.1	8.2	9.4	7.6	6.3	Jul-01
60% MSCI ACWI / 40% Barclays Global Aggregate			8.7	9.0	13.3	11.4	7.7	6.6	6.1	
InvMetrics Public DB \$250M-\$1B Median			6.6	6.3	10.8	10.3	9.0	7.3	6.5	
Total Retirement System Rank			93	82	95	88	30	32	69	
Domestic Equity Assets	62,907,762	23.5	10.7	5.4	15.0	18.3	15.6	12.8	8.9	Jul-01
Russell 3000 Index			11.0	5.8	15.3	19.1	16.0	13.0	9.1	
eV US Large Cap Equity Median			8.9	5.9	13.4	16.8	14.9	11.6	8.9	
Domestic Equity Assets Rank			39	59	34	41	39	35	52	
Total International Developed Market Equity	16,725,193	6.3	12.9	20.0	19.0	15.3	10.7	6.6	6.5	Jul-01
MSCI EAFE (Net)			11.8	19.4	17.7	16.0	11.2	6.5	5.9	
eV EAFE Core Equity Median			12.8	20.2	19.8	15.9	11.3	6.9	6.6	
Total International Developed Market Equity Rank			46	55	57	57	60	61	58	
International Emerging Market Equity Assets	15,716,650	5.9	7.7	7.8	-0.4	13.2	9.3	5.1	2.9	Jul-07
MSCI Emerging Markets (Net)			12.0	15.3	15.3	9.7	6.8	4.8	3.2	
eV Emg Mkts Equity Median			12.7	15.1	14.8	11.2	8.1	5.4	3.7	
International Emerging Market Equity Assets Rank			97	96	99	30	37	63	79	
Investment Grade Bond Assets	50,588,565	18.9	1.2	4.0	6.2	3.3	0.3	2.3	3.9	Jul-01
Blmbg. U.S. Aggregate Index			1.2	4.0	6.1	2.5	-0.7	1.8	3.6	
eV US Core Fixed Inc Median			1.3	4.0	6.2	2.9	-0.4	2.0	3.9	
Investment Grade Bond Assets Rank			75	55	43	17	11	18	54	
High Yield Bond Assets	14,052,688	5.3	3.3	3.8	9.4	9.2	5.9	5.0	5.9	Feb-05
Credit Suisse High Yield Index			3.6	4.3	9.6	9.7	6.1	5.2	6.3	
eV US High Yield Fixed Inc Median			3.4	4.4	9.2	9.3	5.7	4.9	5.9	
High Yield Bond Assets Rank			60	78	42	58	42	42	53	

Trailing Net Performance | As of June 30, 2025

	Market Value (\$)	% of Portfolio	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
TIPS Assets	18,291,477	6.8	0.5	4.7	5.8	2.3	1.6	2.6	3.6	Jul-07
<i>Blmbg. U.S. TIPS Index</i>			<i>0.5</i>	<i>4.7</i>	<i>5.8</i>	<i>2.3</i>	<i>1.6</i>	<i>2.7</i>	<i>3.7</i>	
<i>eV US TIPS / Inflation Fixed Inc Median</i>			<i>0.6</i>	<i>4.7</i>	<i>6.0</i>	<i>2.5</i>	<i>1.7</i>	<i>2.7</i>	<i>3.6</i>	
<i>TIPS Assets Rank</i>			<i>70</i>	<i>58</i>	<i>64</i>	<i>65</i>	<i>65</i>	<i>64</i>	<i>40</i>	
Emerging Market Debt Assets	10,414,808	3.9	4.0	6.0	10.5	10.0	2.9	2.5	-0.1	Mar-13
<i>50% JPM EMBI GD / 50% JPM GBI-EM</i>			<i>5.5</i>	<i>8.9</i>	<i>11.9</i>	<i>8.7</i>	<i>1.9</i>	<i>2.9</i>	<i>1.7</i>	
Real Estate Assets	21,868,394	8.2	0.7	2.5	2.2	-4.5	3.3	5.7	5.3	Apr-05
<i>NCREIF ODCE (Net)</i>			<i>0.8</i>	<i>1.7</i>	<i>2.7</i>	<i>-6.2</i>	<i>2.5</i>	<i>4.4</i>	<i>5.3</i>	
Private Equity Assets	31,593,174	11.8	-0.3	0.6	1.7	1.4	15.9	12.9	8.3	Oct-03
<i>Preqin Private Equity 1Q Lagged</i>			<i>0.0</i>	<i>2.8</i>	<i>5.4</i>	<i>4.0</i>	<i>16.0</i>	<i>13.5</i>	<i>12.9</i>	
Infrastructure Assets	20,890,251	7.8	2.5	5.6	12.4	8.2	10.4	--	9.8	Oct-18
<i>CPI +3% (Unadjusted)</i>			<i>1.6</i>	<i>3.7</i>	<i>5.7</i>	<i>5.9</i>	<i>7.7</i>	<i>6.1</i>	<i>6.8</i>	
Cash	4,536,949	1.7								

Trailing Net Performance | As of June 30, 2025

Trailing Net Performance										
	Market Value (\$)	% of Portfolio	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Total Retirement System	267,585,911	100.0	4.4	5.1	8.1	8.2	9.4	7.6	6.3	Jul-01
60% MSCI ACWI / 40% Barclays Global Aggregate			8.7	9.0	13.3	11.4	7.7	6.6	6.1	
InvMetrics Public DB \$250M-\$1B Median			6.6	6.3	10.8	10.3	9.0	7.3	6.5	
Total Retirement System Rank			93	82	95	88	30	32	69	
Domestic Equity Assets	62,907,762	23.5	10.7	5.4	15.0	18.3	15.6	12.8	8.9	Jul-01
Russell 3000 Index			11.0	5.8	15.3	19.1	16.0	13.0	9.1	
eV US Large Cap Equity Median			8.9	5.9	13.4	16.8	14.9	11.6	8.9	
Domestic Equity Assets Rank			39	59	34	41	39	35	52	
SSgA Russell 1000 Value Index-NL	26,861,621	10.0	3.8	6.0	13.7	12.7	13.9	9.1	7.9	Jan-05
Russell 1000 Value Index			3.8	6.0	13.7	12.8	13.9	9.2	8.0	
eV US Large Cap Value Equity Median			4.4	5.6	12.5	12.9	14.5	9.8	8.4	
SSgA Russell 1000 Value Index-NL Rank			60	44	39	54	59	65	72	
SSgA Russell 1000 Growth-NL	31,575,391	11.8	17.8	6.1	17.1	25.7	18.1	16.9	13.0	Jul-07
Russell 1000 Growth Index			17.8	6.1	17.2	25.8	18.1	17.0	13.1	
eV US Large Cap Growth Equity Median			17.1	6.8	15.4	23.5	15.1	14.7	11.7	
SSgA Russell 1000 Growth-NL Rank			43	62	29	27	11	8	10	
SSgA Russell 2000 Index-NL	4,470,750	1.7	8.4	-1.8	7.6	10.0	10.1	7.1	9.9	Aug-10
Russell 2000 Index			8.5	-1.8	7.7	10.0	10.0	7.1	9.9	
eV US Small Cap Core Equity Median			7.1	-1.5	6.7	10.7	12.5	8.0	10.8	
SSgA Russell 2000 Index-NL Rank			33	51	44	58	78	76	78	

Trailing Net Performance | As of June 30, 2025

	Market Value (\$)	% of Portfolio	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Total International Developed Market Equity	16,725,193	6.3	12.9	20.0	19.0	15.3	10.7	6.6	6.5	Jul-01
<i>MSCI EAFE (Net)</i>			11.8	19.4	17.7	16.0	11.2	6.5	5.9	
eV EAFE Core Equity Median			12.8	20.2	19.8	15.9	11.3	6.9	6.6	
Total International Developed Market Equity Rank			46	55	57	57	60	61	58	
SSgA MSCI EAFE Index-NL	13,049,795	4.9	12.0	19.8	18.0	16.2	11.4	6.8	7.1	Aug-10
<i>MSCI EAFE (Net)</i>			11.8	19.4	17.7	16.0	11.2	6.5	6.9	
eV EAFE Core Equity Median			12.8	20.2	19.8	15.9	11.3	6.9	7.7	
SSgA MSCI EAFE Index-NL Rank			62	57	63	44	50	54	75	
SSgA MSCI EAFE Small Cap Index-NL	3,675,398	1.4	16.6	20.9	22.5	13.4	9.3	6.5	7.9	Aug-10
<i>MSCI EAFE Small Cap (Net)</i>			16.6	20.9	22.5	13.3	9.3	6.5	7.9	
eV EAFE Small Cap Core Median			17.2	22.9	24.0	14.9	10.7	7.3	8.8	
SSgA MSCI EAFE Small Cap Index-NL Rank			56	60	58	62	60	70	68	
International Emerging Market Equity Assets	15,716,650	5.9	7.7	7.8	-0.4	13.2	9.3	5.1	2.9	Jul-07
<i>MSCI Emerging Markets (Net)</i>			12.0	15.3	15.3	9.7	6.8	4.8	3.2	
eV Emg Mkts Equity Median			12.7	15.1	14.8	11.2	8.1	5.4	3.7	
International Emerging Market Equity Assets Rank			97	96	99	30	37	63	79	
GQG Partners Emerging Markets	11,139,906	4.2	5.4	5.3	-2.8	12.2	9.1	--	8.6	Apr-19
<i>MSCI Emerging Markets (Net)</i>			12.0	15.3	15.3	9.7	6.8	4.8	4.9	
eV Emg Mkts Equity Median			12.7	15.1	14.8	11.2	8.1	5.4	5.9	
GQG Partners Emerging Markets Rank			100	98	100	37	40	--	19	
ABS Emerging Markets	4,576,744	1.7	13.9	14.4	--	--	--	--	14.4	Jan-25
<i>MSCI Emerging Markets (Net)</i>			12.0	15.3	15.3	9.7	6.8	4.8	15.3	
eV Emg Mkts Equity Median			12.7	15.1	14.8	11.2	8.1	5.4	15.1	
ABS Emerging Markets Rank			29	60	--	--	--	--	60	

Trailing Net Performance | As of June 30, 2025

	Market Value (\$)	% of Portfolio	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Investment Grade Bond Assets	50,588,565	18.9	1.2	4.0	6.2	3.3	0.3	2.3	3.9	Jul-01
<i>Blmbg. U.S. Aggregate Index</i>			1.2	4.0	6.1	2.5	-0.7	1.8	3.6	
eV US Core Fixed Inc Median			1.3	4.0	6.2	2.9	-0.4	2.0	3.9	
Investment Grade Bond Assets Rank			75	55	43	17	11	18	54	
Longfellow Investment Grade Bond	50,588,565	18.9	1.2	4.0	6.2	3.3	0.3	--	2.0	Sep-17
<i>Blmbg. U.S. Aggregate Index</i>			1.2	4.0	6.1	2.5	-0.7	1.8	1.4	
eV US Core Fixed Inc Median			1.3	4.0	6.2	2.9	-0.4	2.0	1.6	
Longfellow Investment Grade Bond Rank			75	55	43	17	11	--	11	
High Yield Bond Assets	14,052,688	5.3	3.3	3.8	9.4	9.2	5.9	5.0	5.9	Feb-05
<i>Credit Suisse High Yield Index</i>			3.6	4.3	9.6	9.7	6.1	5.2	6.3	
eV US High Yield Fixed Inc Median			3.4	4.4	9.2	9.3	5.7	4.9	5.9	
High Yield Bond Assets Rank			60	78	42	58	42	42	53	
Lord Abbett High Yield Core	14,052,688	5.3	3.3	3.8	9.4	9.2	5.9	--	4.7	Jul-19
<i>Blmbg. U.S. Corp: High Yield Index</i>			3.5	4.6	10.3	9.9	6.0	5.4	5.0	
eV US High Yield Fixed Inc Median			3.4	4.4	9.2	9.3	5.7	4.9	4.7	
Lord Abbett High Yield Core Rank			60	78	42	59	42	--	51	

Trailing Net Performance | As of June 30, 2025

	Market Value (\$)	% of Portfolio	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
TIPS Assets	18,291,477	6.8	0.5	4.7	5.8	2.3	1.6	2.6	3.6	Jul-07
<i>Blmbg. U.S. TIPS Index</i>			<i>0.5</i>	<i>4.7</i>	<i>5.8</i>	<i>2.3</i>	<i>1.6</i>	<i>2.7</i>	<i>3.7</i>	
<i>eV US TIPS / Inflation Fixed Inc Median</i>			<i>0.6</i>	<i>4.7</i>	<i>6.0</i>	<i>2.5</i>	<i>1.7</i>	<i>2.7</i>	<i>3.6</i>	
TIPS Assets Rank			70	58	64	65	65	64	40	
SSgA TIPS-NL	18,291,477	6.8	0.5	4.7	5.8	2.3	1.6	2.6	3.6	Jul-07
<i>Blmbg. U.S. TIPS Index</i>			<i>0.5</i>	<i>4.7</i>	<i>5.8</i>	<i>2.3</i>	<i>1.6</i>	<i>2.7</i>	<i>3.7</i>	
<i>eV US TIPS / Inflation Fixed Inc Median</i>			<i>0.6</i>	<i>4.7</i>	<i>6.0</i>	<i>2.5</i>	<i>1.7</i>	<i>2.7</i>	<i>3.6</i>	
SSgA TIPS-NL Rank			70	58	64	65	65	68	47	
Emerging Market Debt Assets	10,414,808	3.9	4.0	6.0	10.5	10.0	2.9	2.5	-0.1	Mar-13
<i>50% JPM EMBI GD / 50% JPM GBI-EM</i>			<i>5.5</i>	<i>8.9</i>	<i>11.9</i>	<i>8.7</i>	<i>1.9</i>	<i>2.9</i>	<i>1.7</i>	
Metlife Emerging Markets Debt	3,713,576	1.4	4.3	6.5	9.9	9.0	3.0	--	3.3	Nov-16
<i>MetLife Custom Benchmark</i>			<i>3.9</i>	<i>7.0</i>	<i>10.2</i>	<i>8.1</i>	<i>2.3</i>	<i>3.3</i>	<i>2.8</i>	
Aberdeen Emerging Markets Bond Fund	6,701,232	2.5	3.9	5.8	10.8	10.7	2.8	--	3.2	Dec-16
<i>JPM EMBI Global Diversified</i>			<i>3.3</i>	<i>5.6</i>	<i>10.0</i>	<i>8.9</i>	<i>1.8</i>	<i>3.5</i>	<i>3.2</i>	
Real Estate Assets	21,868,394	8.2	0.7	2.5	2.2	-4.5	3.3	5.7	5.3	Apr-05
<i>NCREIF ODCE (Net)</i>			<i>0.8</i>	<i>1.7</i>	<i>2.7</i>	<i>-6.2</i>	<i>2.5</i>	<i>4.4</i>	<i>5.3</i>	
Intercontinental U.S. REIF	8,457,320	3.2	1.0	1.5	0.7	-8.3	1.1	4.9	5.2	Oct-14
<i>NCREIF ODCE (Net)</i>			<i>0.8</i>	<i>1.7</i>	<i>2.7</i>	<i>-6.2</i>	<i>2.5</i>	<i>4.4</i>	<i>5.0</i>	
AEW Core Property Trust	8,833,080	3.3	0.5	1.3	1.4	-4.6	3.5	4.8	5.3	Oct-14
<i>NCREIF ODCE (Net)</i>			<i>0.8</i>	<i>1.7</i>	<i>2.7</i>	<i>-6.2</i>	<i>2.5</i>	<i>4.4</i>	<i>5.0</i>	
AEW Partners IX, L.P.	4,577,994	1.7	0.2	7.1	7.2	7.5	--	--	-1.3	Apr-21
<i>NCREIF ODCE (Net)</i>			<i>0.8</i>	<i>1.7</i>	<i>2.7</i>	<i>-6.2</i>	<i>2.5</i>	<i>4.4</i>	<i>2.2</i>	

AEW Core Property Trust market value is preliminary as of 6/30/2025.

AEW Partners IX, L.P. market value is as of 3/31/2025 adjusted for subsequent cash flows.

Trailing Net Performance | As of June 30, 2025

	Market Value (\$)	% of Portfolio	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Private Equity Assets	31,593,174	11.8	-0.3	0.6	1.7	1.4	15.9	12.9	8.3	Oct-03
<i>Preqin Private Equity 1Q Lagged</i>			<i>0.0</i>	<i>2.8</i>	<i>5.4</i>	<i>4.0</i>	<i>16.0</i>	<i>13.5</i>	<i>12.9</i>	
Ascent Venture Partners - Fund V	584,816	0.2								
Ascent Venture Partners - Fund VI	1,285,937	0.5								
Constitution Capital Partners Ironsides III	25,850	0.0								
Constitution Capital Partners Ironsides IV	2,937,198	1.1								
Constitution Capital Partners Ironsides V	3,189,638	1.2								
Constitution Capital Direct IV	536,054	0.2								
Constitution Capital Direct V	3,366,449	1.3								
Constitution Capital Co-Investment Fund VI, L.P.	4,402,498	1.6								
Goldman Sachs PEP 2005	84,535	0.0								
HarbourVest Partners VIII	12,683	0.0								
HarbourVest Partners IX	1,237,348	0.5								
HarbourVest X Buyout Fund	5,192,226	1.9								
HarbourVest Partners XI	5,613,390	2.1								
HarbourVest Fund XII	2,298,141	0.9								
HarbourVest Fund XIII	48,000	0.0								
Mesirow Private Equity Fund IX	778,412	0.3								

Private Equity Asset market values are as of 3/31/2025 adjusted for subsequent cash flows.
HarbourVest Fund XIII was initially funded in April 2025.

Trailing Net Performance | As of June 30, 2025

	Market Value (\$)	% of Portfolio	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Infrastructure Assets	20,890,251	7.8	2.5	5.6	12.4	8.2	10.4	--	9.8	Oct-18
<i>CPI +3% (Unadjusted)</i>			<i>1.6</i>	<i>3.7</i>	<i>5.7</i>	<i>5.9</i>	<i>7.7</i>	<i>6.1</i>	<i>6.8</i>	
IFM Global Infrastructure (U.S.), L.P.	20,890,251	7.8	2.5	5.6	12.4	8.2	10.4	--	9.8	Oct-18
<i>CPI +3% (Unadjusted)</i>			<i>1.6</i>	<i>3.7</i>	<i>5.7</i>	<i>5.9</i>	<i>7.7</i>	<i>6.1</i>	<i>6.8</i>	
Cash	4,536,949	1.7								
Cash STIF	4,536,949	1.7								

Trailing Net Performance | As of June 30, 2025

	Calendar Year Performance							
	2024 (%)	2023 (%)	2022 (%)	2021 (%)	2020 (%)	2019 (%)	2018 (%)	2017 (%)
Total Retirement System	7.8	11.2	-8.6	16.2	14.1	17.4	-3.2	14.3
<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>
Domestic Equity Assets	22.8	24.3	-18.2	25.2	21.5	30.8	-5.6	20.9
<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>
Total International Developed Market Equity	3.5	16.6	-16.4	10.9	9.2	23.1	-14.8	27.3
<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>
International Emerging Market Equity Assets	7.0	30.3	-21.2	-1.5	24.6	15.8	-17.9	31.8
<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>

Trailing Net Performance | As of June 30, 2025

	2024 (%)	2023 (%)	2022 (%)	2021 (%)	2020 (%)	2019 (%)	2018 (%)	2017 (%)
Investment Grade Bond Assets	2.1	6.8	-13.1	-0.2	9.2	8.9	-0.1	3.5
<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>
High Yield Bond Assets	8.8	12.1	-13.0	5.8	8.6	15.5	-3.7	6.8
<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>
TIPS Assets	1.9	3.9	-12.0	5.9	10.9	8.4	-1.3	3.0
<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>
Emerging Market Debt Assets	6.3	13.3	-15.3	-4.0	5.5	14.9	-7.1	13.1
<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>

Trailing Net Performance | As of June 30, 2025

	2024 (%)	2023 (%)	2022 (%)	2021 (%)	2020 (%)	2019 (%)	2018 (%)	2017 (%)
Real Estate Assets	-1.5	-10.6	7.8	19.4	0.5	8.1	8.3	8.4
<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>
Private Equity Assets	0.0	3.3	11.1	46.1	25.3	15.7	13.7	11.8
<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								

Trailing Net Performance | As of June 30, 2025

	2024 (%)	2023 (%)	2022 (%)	2021 (%)	2020 (%)	2019 (%)	2018 (%)	2017 (%)
HarbourVest Partners XI								
HarbourVest Fund XII								
HarbourVest Fund XIII								
Mesirow Private Equity Fund IX								
Infrastructure Assets	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>
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>
Cash								
Cash STIF								

Cash Flow Summary | 1 Quarter Ending June 30, 2025

Cash Flow Summary							
	Beginning Market Value (\$)	Contributions (\$)	Distributions (\$)	Net Cash Flow (\$)	Net Investment Change (\$)	Income (\$)	Ending Market Value (\$)
SSgA Russell 1000 Value Index-NL	25,877,879	-	-	-	983,742	-	26,861,621
SSgA Russell 1000 Growth-NL	26,799,589	-	-	-	4,775,802	-	31,575,391
SSgA Russell 2000 Index-NL	4,122,588	-	-	-	348,161	-	4,470,750
SSgA MSCI EAFE Index-NL	11,654,694	-	-	-	1,395,101	-	13,049,795
SSgA MSCI EAFE Small Cap Index-NL	3,152,263	-	-	-	523,135	-	3,675,398
GQG Partners Emerging Markets	10,572,084	-	-	-	567,822	-	11,139,906
ABS Emerging Markets	4,016,773	-	-	-	559,971	-	4,576,744
Longfellow Investment Grade Bond	49,957,169	-	-	-	631,396	-	50,588,565
Lord Abbett High Yield Core	13,603,929	-	-	-	448,758	-	14,052,688
SSgA TIPS-NL	18,200,953	-	-	-	90,524	-	18,291,477
Metlife Emerging Markets Debt	3,555,755	-	-	-	157,821	-	3,713,576
Aberdeen Emerging Markets Bond Fund	6,450,070	-	-	-7,269	258,431	-	6,701,232
Intercontinental U.S. REIF	8,896,020	-	-526,493	-526,493	87,793	-	8,457,320
AEW Core Property Trust	9,013,395	-	-226,560	-226,560	46,245	-	8,833,080
AEW Partners IX, L.P.	4,595,622	-	-28,407	-28,407	10,779	-	4,577,994
Ascent Venture Partners - Fund V	581,907	-	-	-	2,908	-	584,816
Ascent Venture Partners - Fund VI	1,291,498	-	-	-	-5,561	-	1,285,937
Constitution Capital Partners Ironsides III	27,710	-	-	-	-1,859	-	25,850
Constitution Capital Partners Ironsides IV	2,920,743	-	-	-	16,455	-	2,937,198
Constitution Capital Partners Ironsides V	3,168,781	-	-	-	20,856	-	3,189,638
Constitution Capital Direct IV	597,369	-	-	-	-61,314	-	536,054
Constitution Capital Direct V	3,572,426	-	-229,393	-229,393	23,416	-	3,366,449
Constitution Capital Co-Investment Fund VI, L.P.	4,230,655	204,184	-	204,184	-32,341	-	4,402,498
Goldman Sachs PEP 2005	98,602	-	-	-	-14,067	-	84,535

Cash Flow Summary | 1 Quarter Ending June 30, 2025

	Beginning Market Value (\$)	Contributions (\$)	Distributions (\$)	Net Cash Flow (\$)	Net Investment Change (\$)	Income (\$)	Ending Market Value (\$)
HarbourVest Partners VIII	12,559	-	-	-	124	-	12,683
HarbourVest Partners IX	1,450,939	-	-162,910	-162,910	-50,681	-	1,237,348
HarbourVest X Buyout Fund	5,270,193	-	-	-	-77,967	-	5,192,226
HarbourVest Partners XI	5,607,338	-	-	-	6,052	-	5,613,390
HarbourVest Fund XII	2,157,653	112,000	-	112,000	28,488	-	2,298,141
HarbourVest Fund XIII	-	48,000	-	48,000	-	-	48,000
Mesirow Private Equity Fund IX	736,000	-	-	-	42,412	-	778,412
IFM Global Infrastructure (U.S.), L.P.	20,371,232	-	-	-	519,019	-	20,890,251
Cash STIF	5,479,447	2,455,062	-3,455,874	-1,000,812	58,314	-	4,536,949
Total	258,043,834	2,819,246	-4,629,637	-1,817,660	11,359,736	-	267,585,911

Benchmark History		
From Date	To Date	Benchmark
Metlife Emerging Markets Debt		
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 (%) Total Retirement System	5 Yrs (%) Total Retirement System
RETURN SUMMARY STATISTICS		
Maximum Return	4.6	5.7
Minimum Return	-4.4	-4.4
Return	8.2	9.4
Excess Return	3.7	6.5
Excess Performance	-3.2	1.7
RISK SUMMARY STATISTICS		
Beta	0.6	0.6
Upside Risk	6.1	6.9
Downside Risk	3.9	4.1
RISK/RETURN SUMMARY STATISTICS		
Standard Deviation	6.8	7.5
Sortino Ratio	0.8	1.4
Alpha	1.4	4.4
Sharpe Ratio	0.5	0.9
Excess Risk	6.8	7.6
Tracking Error	4.9	5.2
Information Ratio	-0.7	0.2
CORRELATION STATISTICS		
R-Squared	1.0	0.9
Actual Correlation	1.0	0.9

Closed End Funds Overview

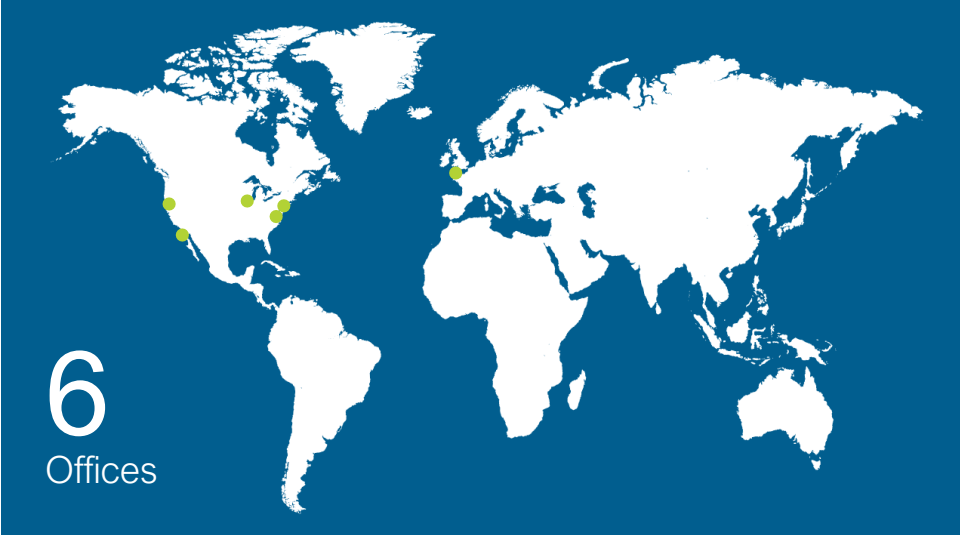
Fund	Vintage Year	Committed (\$mm)	Called (\$mm)	Distributed (\$mm)	Fair Value (\$mm)	Net IRR ¹ (%)
AEW Partners IX, L.P.	2019	5.0	4.2	0.5	4.6	7.5
Ascent Venture Partners – Fund V	2011	1.0	1.0	0.9	0.6	5.5
Ascent Venture Partners – Fund VI	2015	1.5	1.5	0.2	1.3	0.2
Constitution Capital Partnership Ironsides III	2014	5.0	6.7	13.4	0.0	23.4 ²
Constitution Capital Partnership Ironsides IV	2016	3.3	3.8	4.3	2.9	24.3
Constitution Capital Partnership Ironsides V	2020	2.5	2.3	0.3	3.2	15.8
Constitution Capital Partnership Ironsides VII	2023	8.0	--	--	--	--
Constitution Capital Direct IV	2016	3.3	3.9	5.6	0.5	16.5
Constitution Capital Direct V	2019	2.5	3.1	1.9	3.4	14.5
Constitution Capital Co-Investment Fund VI	2021	4.0	4.0	0.9	4.4	8.2
Goldman Sachs PEP 2005	2006	2.3	2.4	3.0	0.1	4.4
HarbourVest Partners VIII	2006	2.5	2.4	4.4	0.0	10.6
HarbourVest Partners IX	2010	5.0	4.4	8.1	1.2	17.0
HarbourVest X Buyout Fund	2016	6.5	5.6	4.9	5.2	18.6
HarbourVest Partners XI	2019	5.0	4.3	1.3	5.6	17.7
HarbourVest Fund XII	2019	4.0	1.8	0.0	2.3	14.6
HarbourVest Fund XIII	2024	8.0	0.0	0.0	0.0	NA
Mesirow Fund IX	2023	8.0	0.7	0.0	0.8	NA

¹ As of March 31, 2025.

² As of June 30, 2024.

Appendices

Corporate Update



UPCOMING EVENTS
Q1 Investment Perspectives Webcast
April 2025

Client and employee counts as of March 31, 2025; assets under advisement as of December 31, 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



Converging Paths or Persistent Gaps? Understanding Valuations Across Public and Private Equity

Valuations play a critical role in shaping long-term investment outcomes and are often considered to be an important determinant of future performance. Therefore, it is natural for allocators of large pools of assets to examine valuations across different markets. An area that has drawn attention in recent years is the comparison of valuations for the stock market and private equity, as both public and private equity valuations are near all-time highs. In this research note, we aim to evaluate where private equity valuations are relative to public markets, with a focus on North American buyout strategies and US equities, and what implications this may have.

Read more here:

<https://meketa.com/leadership/converging-paths-or-persistent-gaps-understanding-valuations-across-public-and-private-equity/>

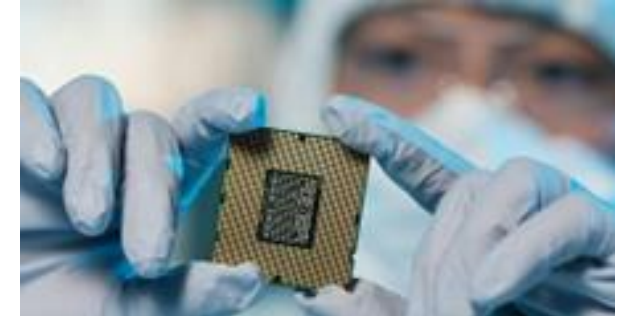


Sustaining Missions and Navigating Markets: Frameworks for Endowment and Foundation Spending Policies

Our focus in this paper is on endowments and foundations that aim to maintain intergenerational equity, and how best to maintain this goal through spending policy development.

Read more here:

<https://meketa.com/leadership/sustaining-missions-and-navigating-markets-frameworks-for-endowment-and-foundation-spending-policies/>



AI Infrastructure Investment

Since OpenAI launched its generative artificial intelligence application, ChatGPT, in late 2022, AI has catapulted to the forefront of technology companies in the US.

The growing competition in AI development has driven a significant surge in investments in technological research and innovation. In the US, the so-called “Magnificent Seven” companies have each developed their own proprietary large language models (LLMs).

Read more here:

<https://meketa.com/leadership/ai-infrastructure-investment>

ANNOUNCING OUR NEWEST SHAREHOLDER



Matt Curran
Research Consultant

HONORS AND AWARDS FOR MEKETA'S DECORATED LEADERS

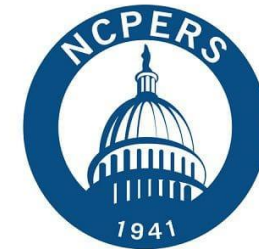


Congratulations to Meketa's Mika Malone, CAIA on being named to Chief Investment Officer magazine's 2025 Knowledge Brokers list!

The annual Knowledge Brokers list honors influential and insightful investment consultants, recognizing them for their strategic counsel and success in connecting asset owners with impactful investment opportunities. Mika's leadership, thoughtful guidance, and client-first mindset continue to make a lasting impact both at Meketa and across the industry.

View the full story here:

<https://www.linkedin.com/feed/update/urn:li:activity:7330986008714383361>



The Voice for Public Pensions

Meketa is proud to have received a 2025 Pension Partners of the Year Award from the National Conference on Public Employee Retirement Systems (NCPERS).

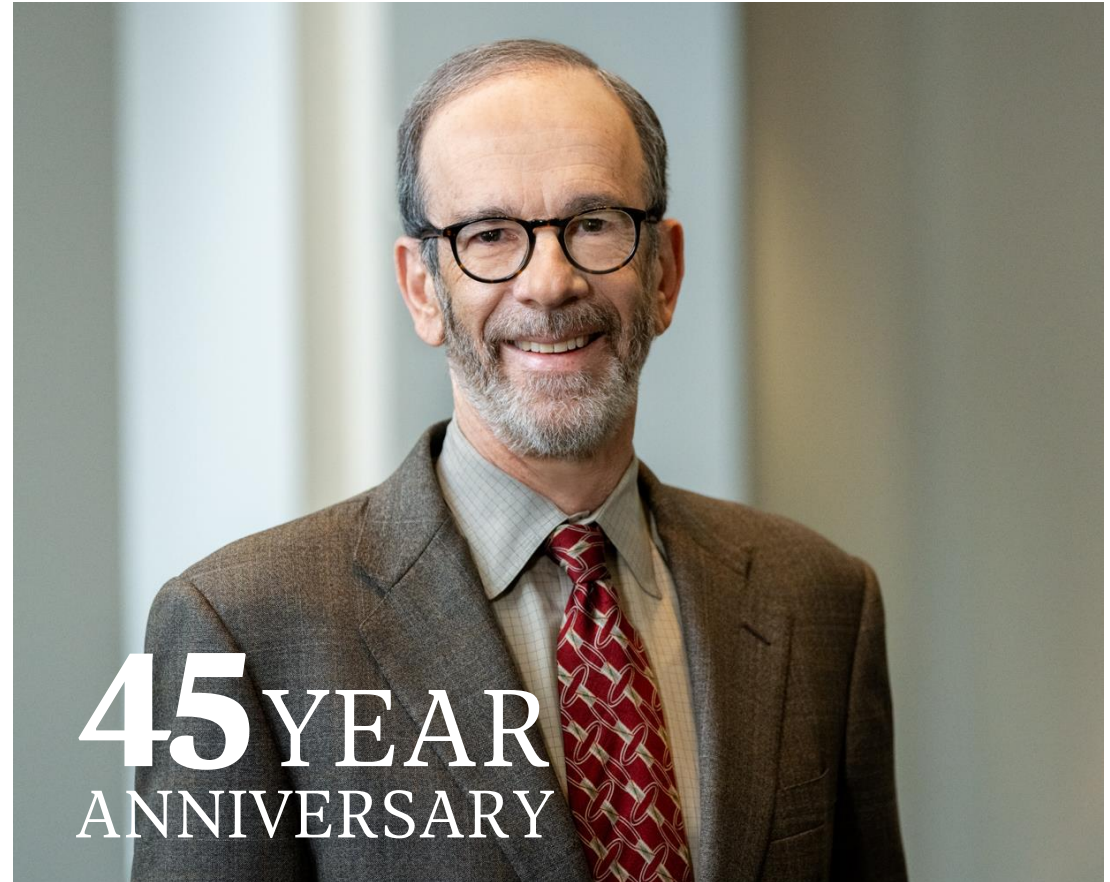
"Education is a crucial component of our service to clients and the wider pension fund industry" said Stephen McCourt, co-CEO, Meketa Investment Group. "We're honored to be recognized by NCPERS, and we're especially proud of the contributions of our colleagues Judy Chambers and David Sancewich, whose efforts have helped trustees navigate an increasingly complex investment landscape."

View full story here:

<https://www.linkedin.com/feed/update/urn:li:activity:7343354503682768897>

CONGRATULATIONS TO ALAN SPATRICK ON CELEBRATING 45 YEARS WITH MEKETA

Alan's journey at Meketa Investment Group spans an incredible 45 years, making him a living archive of the firm's history, evolution, and ethos. As employee number three, he has witnessed and influenced Meketa's transformation from a small operation to a sophisticated institutional investment advisory firm.



View the full story here: **[Celebrating 45 Years of Inspiration Insights from the Archive of Alan Spatrack, Meketa Consultant, from His Journey Along the Way](https://meketa.com/wp-content/uploads/2025/03/MEKETA_Anniversary-Alan-Spatrick.pdf)**
https://meketa.com/wp-content/uploads/2025/03/MEKETA_Anniversary-Alan-Spatrick.pdf

MEKETA IN THE WILD



IPEM Conference

Meketa's **Balaj Singh, CFA, CAIA** enjoyed moderating a panel at April's Pensions & Investments x IPEM conference, 2025 Private Markets: The LP Perspective. Balaj and his fellow panelists discussed the state of private equity and how LPs are monitoring their private equity portfolios to ensure they meet investment objectives, noting "private equity investing is not about a "set it and forget it" mentality."



Talking Hedge

It was great to hear Meketa's **Zachary Driscoll, CFA** moderate the panel, Leveraging Total Portfolio Principles to Compound Better, at last month's Talking Hedge Austin conference. The discussion offered valuable insights and was a great kick-off to the event.



PREA Institute

Christy Fields from Meketa had the pleasure of leading the session, The Performance of Real Estate and Other Alternatives, at the conference in Chicago, with **Rajeev Ranade** joining as well. The Institute is dedicated to exploring real estate investment where theory meets practice, fostering insightful discussions and innovative ideas.

MEKETA IN THE NEWS

Pensions&Investments

Expanding the Playbook – Private Equity's Evolving Opportunities in Sports | April 30, 2025
 Commentary by Balaj Singh, Senior Private Markets Analyst

"For private equity investors, the sports sector offers the allure of cultural relevance, anticipated steady demand and growing institutional acceptance. But it also requires patience, creativity and an understanding that this is not your typical PE asset class. The playbook is still being written."

EQDerivatives

Long Volatility Gains Momentum, Trend Strategies Show Resilience Amid Market Corrections

By Quratulain Tejani | May 7, 2025

Meketa said risk mitigating strategies helped institutional clients navigate volatility as markets tumbled in April. Long volatility strategies proved effective in mitigating risk, and should a drawdown or inflationary themes continue to extend, trend following strategies will be ready to take the baton.

Meketa's risk management framework, which is categorized into first responders, such as long volatility, second responders, such as trend following and diversifiers, is helping investors weather equity drawdowns and potentially benefit from bear market conditions. Ryan Lobdell, head of marketable alternatives, highlighted that many of these strategies have stood their ground during the recent market selloffs, despite liquidity concerns expressed by some.

"The vast majority of these [systematic strategies] trade futures contracts on different types of assets, such as equity, equity indices, rates, currencies [and] commodities," said Zack Driscoll, research consultant at Meketa.

"Many first responder strategies, [such as long volatility], did quite well over the first week to 10 days of April," said Lobdell. "There has been an uptick in interest, but in terms of people actually putting dollars to work, I think that's been a hit or miss because of liquidity constraints within private markets allocations."

Second responder strategies, such as trend following, tend to perform well during bear markets or prolonged drawdowns — especially when asset managers take long and short positions across macro markets within a six-week to six-month time horizon, Lobdell said. "This played out during the global financial crisis and again in 2022, when persistent market trends created favorable conditions for these approaches. But in times like the mid-April market selloffs, or the beginning of COVID-19, when trends rapidly reverse, the performance of the strategy can suffer in the short term as it repositions. If equities are trending down, trend followers will likely be net sellers, leading to negative correlations to equities." This, Lobdell said, may produce an attractive profile, such as convexity.

Diversifiers, such as global macro, equity market neutral, relative value, event-driven, insurance-linked securities, alternative risk premia and multistrategies, act as hedges and contribute to returns during bull and flat equity markets, particularly when bonds might be failing to deliver the required portfolio protection, Lobdell and Driscoll highlighted. "[These] diversified sets of hedges or protection in a portfolio tend to not do as well when there's no trend. When markets move sideways and are choppy, like we've seen, that's a harder environment for them to succeed in," Driscoll said. **"Ultimately, no single group of a risk management functional framework, or a single strategy within a group, is likely to effectively fulfill all objectives. We work hard to educate clients on the role of the framework and how each strategy within interacts, to manage their expectations."**

chief investment officer

How Companies With Frozen, Overfunded Pensions Approach the Future

By Matt Toledo | May 1, 2025

Corporations are increasingly evaluating de-risking options for their pension funds, while also adding risk to their portfolios.

"The majority of plans that are frozen and just a little bit overfunded are still targeting termination," says Jonathan Camp, a managing principal at Meketa. "But we have seen an uptick in companies that are opening back up their plans. ... Some of these frozen plans that have excess assets—let's say they are 5% or 10% overfunded—that's when [the sponsors] start to have to think to [themselves]: Are we going to terminate the plan and then use those assets for some other purpose?"

How Frozen, Surplus-Asset Plans Are Investing

"If you're 100% or over 100% funded, you're going to have a heavier allocation to bonds—the higher quality, the better," says Camp. "So typically Treasuries, AAA bonds, AA bonds...you're generally focused on investment-grade, high-quality corporate bonds."

Will More Plans Like IBM Reopen?

"The plans that I see that are frozen and using their assets to open back up and offer new benefits, from what I've seen, they tend to be cash balance plans," Camp says, noting that other types of plans are not unfreezing their pensions.

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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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