

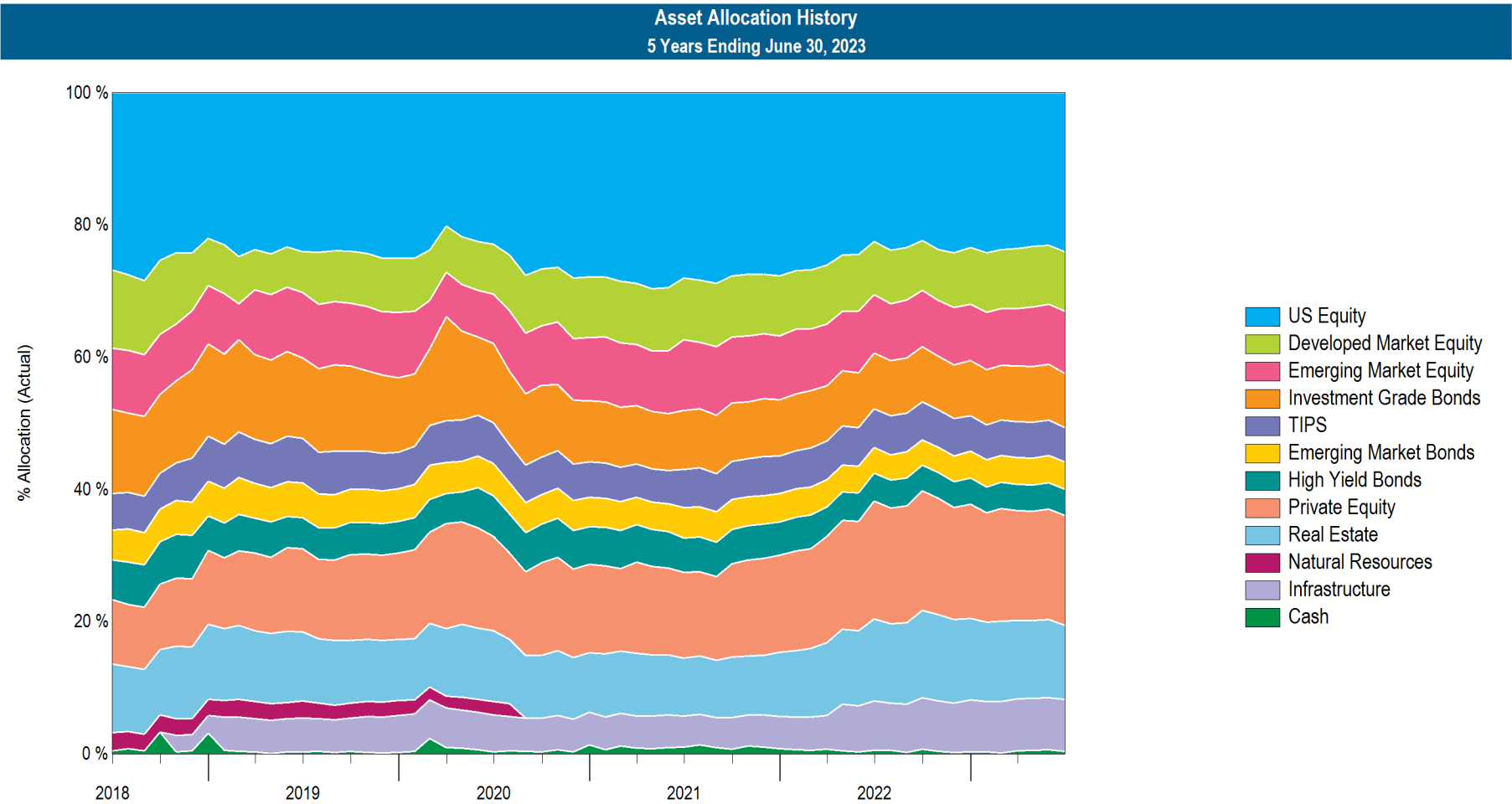
Massachusetts Housing Finance Agency Retirement System

Quarterly Review
June 30, 2023

Fund Evaluation Report

Second Quarter 2023 Performance Review

	Allocation vs. Targets and Policy				
	Current Balance	Current Allocation	Policy	Policy Range	Within IPS Range?
US Equity	\$55,199,454	24%	20%	15% - 25%	Yes
Developed Market Equity	\$20,692,110	9%	6%	2% - 10%	Yes
Emerging Market Equity	\$21,582,964	9%	5%	0% - 15%	Yes
Investment Grade Bonds	\$18,790,917	8%	16%	11% - 21%	No
TIPS	\$12,035,266	5%	10%	5% - 15%	Yes
Emerging Market Bonds	\$9,435,230	4%	4%	1% - 7%	Yes
High Yield Bonds	\$9,041,586	4%	6%	3% - 9%	Yes
Private Equity	\$38,156,240	17%	17%	12% - 22%	Yes
Real Estate	\$25,697,840	11%	8%	5% - 11%	No
Infrastructure	\$18,063,854	8%	8%	5% - 12%	Yes
Cash	\$915,902	0%	0%	0% - 5%	Yes
Total	\$229,611,363	100%	100%		



Asset Class Performance Summary

	Market Value (\$)	% of Portfolio	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Total Retirement System	229,611,363	100.0	3.3	6.2	6.8	9.7	7.9	7.3	6.0	Jul-01
60% MSCI ACWI / 40% Barclays Global Aggregate			3.1	8.8	9.2	4.5	4.6	5.5	5.6	Jul-01
InvMetrics Public DB \$50mm-\$250mm Net Median			3.4	8.0	9.2	7.7	6.6	7.2	5.9	Jul-01
InvMetrics Public DB \$50mm-\$250mm Net Rank			53	88	91	7	5	46	43	Jul-01
Domestic Equity Assets	55,199,454	24.0	8.0	14.9	18.2	13.9	11.3	12.3	8.0	Jul-01
Russell 3000			8.4	16.2	19.0	13.9	11.4	12.3	8.2	Jul-01
eV US Large Cap Equity Net Median			6.5	11.6	16.0	13.2	10.5	11.4	8.3	Jul-01
eV US Large Cap Equity Net Rank			38	38	40	41	38	34	62	Jul-01
Total International Developed Market Equity	20,692,110	9.0	2.4	10.0	16.4	8.1	3.6	5.7	5.8	Jul-01
MSCI EAFE			3.0	11.7	18.8	8.9	4.4	5.4	5.1	Jul-01
eV EAFE Core Equity Net Median			2.6	10.7	16.2	8.2	3.8	5.7	6.0	Jul-01
eV EAFE Core Equity Net Rank			58	60	50	52	57	54	64	Jul-01
International Emerging Market Equity Assets	21,582,964	9.4	10.8	14.6	10.5	5.9	2.6	2.8	1.5	Jul-07
MSCI Emerging Markets			0.9	4.9	1.7	2.3	0.9	3.0	2.0	Jul-07
eV Emg Mkts Equity Net Median			2.2	7.5	6.3	4.2	2.2	3.7	2.5	Jul-07
eV Emg Mkts Equity Net Rank			2	7	29	41	42	78	84	Jul-07
Investment Grade Bond Assets	18,790,917	8.2	-0.6	2.7	-0.1	-2.8	1.4	1.9	3.8	Jul-01
Bloomberg US Aggregate TR			-0.8	2.1	-0.9	-4.0	0.8	1.5	3.6	Jul-01
eV US Core Fixed Inc Net Median			-0.7	2.3	-0.5	-3.6	1.0	1.7	3.9	Jul-01
eV US Core Fixed Inc Net Rank			30	11	27	11	15	26	58	Jul-01
High Yield Bond Assets	9,041,586	3.9	1.5	4.6	7.6	3.2	3.4	4.3	5.5	Feb-05
CSFB High Yield Index			1.9	5.8	9.3	3.6	3.2	4.3	5.9	Feb-05
eV US High Yield Fixed Inc Net Median			1.4	4.8	8.2	3.0	3.1	4.0	5.6	Feb-05
eV US High Yield Fixed Inc Net Rank			47	58	65	44	32	28	66	Feb-05

Retirement System Summary | As of June 30, 2023

	Market Value (\$)	% of Portfolio	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
TIPS Assets	12,035,266	5.2	-1.4	2.0	-1.4	-0.2	2.4	2.0	3.5	Jul-07
Bloomberg US TIPS TR			-1.4	1.9	-1.4	-0.1	2.5	2.1	3.6	Jul-07
eV US TIPS / Inflation Fixed Inc Net Median			-1.4	1.8	-1.2	0.0	2.5	2.0	3.6	Jul-07
eV US TIPS / Inflation Fixed Inc Net Rank			50	16	67	69	60	52	55	Jul-07
Emerging Market Debt Assets	9,435,230	4.1	3.9	5.5	9.8	-1.6	0.7	-1.1	-2.0	Mar-13
50% JPM EMBI GD / 50% JPM GBI-EM			2.3	5.9	9.4	-2.2	0.5	1.2	0.4	Mar-13
Real Estate Assets	25,697,840	11.2	-2.8	-5.5	-8.6	7.2	6.5	8.6	6.1	Apr-05
NCREIF ODCE (net)			-2.8	-6.1	-10.7	7.1	5.6	7.8	6.4	Apr-05
Private Equity Assets	38,156,240	16.6	2.0	1.2	1.4	26.8	20.8	14.7	9.1	Oct-03
Preqin Private Equity 1Q Lagged			0.0	0.0	-4.0	21.5	15.6	14.9	13.4	Oct-03
Infrastructure Assets	18,063,854	7.9	2.5	5.2	9.6	12.4	--	--	10.7	Oct-18
CPI + 3%			1.8	4.3	6.1	8.9	7.0	5.8	7.2	Oct-18
Cash	915,902	0.4								

	Trailing Gross Performance										Inception (%)	Inception Date
	Market Value (\$)	% of Portfolio	% of Sector	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)			
Total Retirement System (Net)	229,611,363	100.0	--	3.3	6.2	6.8	9.7	7.9	7.3		6.0	Jul-01
60% MSCI ACWI / 40% Barclays Global Aggregate				3.1	8.8	9.2	4.5	4.6	5.5		5.6	Jul-01
InvMetrics Public DB \$50mm-\$250mm Net Median				3.4	8.0	9.2	7.7	6.6	7.2		5.9	Jul-01
InvMetrics Public DB \$50mm-\$250mm Net Rank				53	88	91	7	5	46		43	Jul-01
Domestic Equity Assets (Net)	55,199,454	24.0	24.0	8.0	14.9	18.2	13.9	11.3	12.3		8.0	Jul-01
Russell 3000				8.4	16.2	19.0	13.9	11.4	12.3		8.2	Jul-01
eV US Large Cap Equity Net Median				6.5	11.6	16.0	13.2	10.5	11.4		8.3	Jul-01
eV US Large Cap Equity Net Rank				38	38	40	41	38	34		62	Jul-01
SSgA Russell 1000 Value Index-NL (Net)	25,046,701	10.9	45.4	4.1	5.1	11.5	14.3	8.0	9.2		7.4	Jan-05
Russell 1000 Value				4.1	5.1	11.5	14.3	8.1	9.2		7.4	Jan-05
eV US Large Cap Value Equity Net Median				3.9	4.6	11.6	14.8	8.5	9.6		7.9	Jan-05
eV US Large Cap Value Equity Net Rank				45	46	51	57	63	64		73	Jan-05
SSgA Russell 1000 Growth-NL (Net)	25,597,397	11.1	46.4	12.8	29.0	27.0	13.7	15.0	15.6		11.5	Jul-07
Russell 1000 Growth				12.8	29.0	27.1	13.7	15.1	15.7		11.6	Jul-07
eV US Large Cap Growth Equity Net Median				11.3	25.2	23.8	10.7	12.5	13.8		10.3	Jul-07
eV US Large Cap Growth Equity Net Rank				32	28	28	17	10	11		12	Jul-07
SSgA Russell 2000 Index-NL (Net)	4,555,356	2.0	8.3	5.2	8.1	12.5	10.9	4.2	8.2		10.1	Aug-10
Russell 2000				5.2	8.1	12.3	10.8	4.2	8.3		10.1	Aug-10
eV US Small Cap Core Equity Net Median				4.6	8.7	13.8	14.2	6.8	9.6		11.5	Aug-10
eV US Small Cap Core Equity Net Rank				36	57	66	86	90	79		79	Aug-10

Retirement System Summary | As of June 30, 2023

	Market Value (\$)	% of Portfolio	% of Sector	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Total International Developed Market Equity (Net)	20,692,110	9.0	9.0	2.4	10.0	16.4	8.1	3.6	5.7	5.8	Jul-01
MSCI EAFE				3.0	11.7	18.8	8.9	4.4	5.4	5.1	Jul-01
eV EAFE Core Equity Net Median				2.6	10.7	16.2	8.2	3.8	5.7	6.0	Jul-01
eV EAFE Core Equity Net Rank				58	60	50	52	57	54	64	Jul-01
SSgA MSCI EAFE Index-NL (Net)	14,530,099	6.3	70.2	3.1	11.9	19.1	9.2	4.7	5.7	6.0	Aug-10
MSCI EAFE				3.0	11.7	18.8	8.9	4.4	5.4	5.8	Aug-10
eV EAFE Core Equity Net Median				2.6	10.7	16.2	8.2	3.8	5.7	6.6	Aug-10
eV EAFE Core Equity Net Rank				40	33	19	33	30	56	75	Aug-10
SSgA MSCI EAFE Small Cap Index-NL (Net)	6,162,011	2.7	29.8	0.7	5.7	10.4	5.8	1.3	6.2	6.9	Aug-10
MSCI EAFE Small Cap				0.6	5.5	10.2	5.7	1.3	6.2	6.8	Aug-10
eV EAFE Small Cap Core Net Median				0.3	6.8	11.5	6.9	2.3	6.8	7.8	Aug-10
eV EAFE Small Cap Core Net Rank				41	69	58	60	70	75	80	Aug-10
International Emerging Market Equity Assets (Net)	21,582,964	9.4	9.4	10.8	14.6	10.5	5.9	2.6	2.8	1.5	Jul-07
MSCI Emerging Markets				0.9	4.9	1.7	2.3	0.9	3.0	2.0	Jul-07
eV Emg Mkts Equity Net Median				2.2	7.5	6.3	4.2	2.2	3.7	2.5	Jul-07
eV Emg Mkts Equity Net Rank				2	7	29	41	42	78	84	Jul-07
GQG Partners Emerging Markets (Net)	21,582,964	9.4	100.0	10.8	14.6	10.5	6.5	--	--	6.5	Mar-19
MSCI Emerging Markets				0.9	4.9	1.7	2.3	0.9	3.0	1.0	Mar-19
eV Emg Mkts Equity Net Median				2.2	7.5	6.3	4.2	2.2	3.7	2.6	Mar-19
eV Emg Mkts Equity Net Rank				2	7	29	36	--	--	15	Mar-19

Retirement System Summary | As of June 30, 2023

	Market Value (\$)	% of Portfolio	% of Sector	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Investment Grade Bond Assets (Net)	18,790,917	8.2	8.2	-0.6	2.7	-0.1	-2.8	1.4	1.9	3.8	Jul-01
Bloomberg US Aggregate TR				-0.8	2.1	-0.9	-4.0	0.8	1.5	3.6	Jul-01
eV US Core Fixed Inc Net Median				-0.7	2.3	-0.5	-3.6	1.0	1.7	3.9	Jul-01
eV US Core Fixed Inc Net Rank				30	11	27	11	15	26	58	Jul-01
Longfellow Investment Grade Bond (Net)	18,790,917	8.2	100.0	-0.6	2.7	-0.1	-2.8	1.4	--	1.0	Sep-17
Bloomberg US Aggregate TR				-0.8	2.1	-0.9	-4.0	0.8	1.5	0.4	Sep-17
eV US Core Fixed Inc Net Median				-0.7	2.3	-0.5	-3.6	1.0	1.7	0.6	Sep-17
eV US Core Fixed Inc Net Rank				30	11	27	11	15	--	13	Sep-17
High Yield Bond Assets (Net)	9,041,586	3.9	3.9	1.5	4.6	7.6	3.2	3.4	4.3	5.5	Feb-05
CSFB High Yield Index				1.9	5.8	9.3	3.6	3.2	4.3	5.9	Feb-05
eV US High Yield Fixed Inc Net Median				1.4	4.8	8.2	3.0	3.1	4.0	5.6	Feb-05
eV US High Yield Fixed Inc Net Rank				47	58	65	44	32	28	66	Feb-05
Lord Abbett High Yield Core (Net)	9,041,586	3.9	100.0	1.5	4.6	7.5	3.2	--	--	2.1	Jul-19
Bloomberg US High Yield TR				1.7	5.4	9.1	3.1	3.4	4.4	2.4	Jul-19
eV US High Yield Fixed Inc Net Median				1.4	4.8	8.2	3.0	3.1	4.0	2.3	Jul-19
eV US High Yield Fixed Inc Net Rank				47	58	67	43	--	--	62	Jul-19
TIPS Assets (Net)	12,035,266	5.2	5.2	-1.4	2.0	-1.4	-0.2	2.4	2.0	3.5	Jul-07
Bloomberg US TIPS TR				-1.4	1.9	-1.4	-0.1	2.5	2.1	3.6	Jul-07
eV US TIPS / Inflation Fixed Inc Net Median				-1.4	1.8	-1.2	0.0	2.5	2.0	3.6	Jul-07
eV US TIPS / Inflation Fixed Inc Net Rank				50	16	67	69	60	52	55	Jul-07
SSgA TIPS-NL (Net)	12,035,266	5.2	100.0	-1.4	2.0	-1.4	-0.2	2.4	2.0	3.5	Jul-07
Bloomberg US TIPS TR				-1.4	1.9	-1.4	-0.1	2.5	2.1	3.6	Jul-07
eV US TIPS / Inflation Fixed Inc Net Median				-1.4	1.8	-1.2	0.0	2.5	2.0	3.6	Jul-07
eV US TIPS / Inflation Fixed Inc Net Rank				50	16	68	70	63	62	56	Jul-07

Retirement System Summary | As of June 30, 2023

	Market Value (\$)	% of Portfolio	% of Sector	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Emerging Market Debt Assets (Net)	9,435,230	4.1	4.1	3.9	5.5	9.8	-1.6	0.7	-1.1	-2.0	Mar-13
50% JPM EMBI GD / 50% JPM GBI-EM				2.3	5.9	9.4	-2.2	0.5	1.2	0.4	Mar-13
Metlife Emerging Markets Debt (Net)	4,021,199	1.8	42.6	3.5	6.3	10.4	-0.5	1.4	--	1.8	Nov-16
MetLife Custom Benchmark				1.8	4.9	7.8	-1.5	1.3	2.0	1.3	Nov-16
Aberdeen Emerging Markets Bond Fund (Net)	5,414,031	2.4	57.4	4.3	4.9	9.5	-2.4	0.2	--	0.9	Dec-16
JP Morgan EMBI Global Diversified				2.2	4.1	7.4	-3.1	0.6	2.8	1.3	Dec-16
JP Morgan GBI EM Global Diversified TR USD				2.5	7.8	11.4	-1.4	0.3	-0.6	1.7	Dec-16
Real Estate Assets (Net)	25,697,840	11.2	11.2	-2.8	-5.5	-8.6	7.2	6.5	8.6	6.1	Apr-05
NCREIF ODCE (net)				-2.8	-6.1	-10.7	7.1	5.6	7.8	6.4	Apr-05
TA Associates Realty Fund X (Net)	832	0.0	0.0	-5.5	-10.0	9.8	7.9	12.2	12.0	11.6	Apr-13
NCREIF ODCE (net)				-2.8	-6.1	-10.7	7.1	5.6	7.8	8.0	Apr-13
NCREIF Property Index				-2.0	-3.8	-6.6	6.8	5.9	7.8	7.9	Apr-13
Intercontinental U.S. REIF (Net)	10,558,408	4.6	41.1	-6.3	-9.8	-14.3	5.5	5.7	--	7.8	Oct-14
NCREIF ODCE (net)				-2.8	-6.1	-10.7	7.1	5.6	7.8	7.2	Oct-14
AEW Core Property Trust (Net)	11,367,456	5.0	44.2	-0.3	-4.0	-7.2	8.2	6.3	--	7.4	Oct-14
NCREIF ODCE (net)				-2.8	-6.1	-10.7	7.1	5.6	7.8	7.2	Oct-14
AEW Partners IX, L.P. (Net)	3,771,144	1.6	14.7	0.1	4.3	7.3	--	--	--	-8.2	Mar-21
NCREIF ODCE (net)				-2.8	-6.1	-10.7	7.1	5.6	7.8	8.6	Mar-21

TA Associates Realty Fund X and AEW Partners IX are based on December 31, 2022 fair market values, adjusted for subsequent cash flows.

MetLife Custom Benchmark consists of 35% JP Morgan EMBI Global Diversified, 35% JP Morgan CEMBI Broad Diversified, and 30% JP Morgan GBI EM Global Diversified.

	Market Value (\$)	% of Portfolio	% of Sector	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Private Equity Assets (Net)	38,156,240	16.6	16.6	2.0	1.2	1.4	26.8	20.8	14.7	9.1	Oct-03
<i>Preqin Private Equity 1Q Lagged</i>				<i>0.0</i>	<i>0.0</i>	<i>-4.0</i>	<i>21.5</i>	<i>15.6</i>	<i>14.9</i>	<i>13.4</i>	<i>Oct-03</i>
Ascent Venture Partners - Fund V (Net)	634,735	0.3	1.7								
Ascent Venture Partners - Fund VI (Net)	1,624,986	0.7	4.3								
Constitution Capital Partners Ironsides III (Net)	5,687,929	2.5	14.9								
Constitution Capital Partners Ironsides IV (Net)	3,264,601	1.4	8.6								
Constitution Capital Partners Ironsides V (Net)	2,603,321	1.1	6.8								
Constitution Capital Direct IV (Net)	1,835,221	0.8	4.8								
Constitution Capital Direct V (Net)	3,892,127	1.7	10.2								
Constitution Capital Co-Investment Fund VI, L.P. (Net)	4,124,510	1.8	10.8								
Goldman Sachs PEP 2005 (Net)	133,899	0.1	0.4								
HarbourVest Partners VIII (Net)	198,012	0.1	0.5								
HarbourVest Partners IX (Net)	3,103,314	1.4	8.1								
HarbourVest X Buyout Fund (Net)	5,504,791	2.4	14.4								
HarbourVest Partners XI (Net)	4,713,516	2.1	12.4								

Preqin Private Equity is not available as of December 31, 2022.

Goldman Sachs PEP 2005's fair market value is based on a preliminary March 31, 2023 capital account statement.

All other Private Equity Assets are based on March 31, 2023 fair market value, adjusted for subsequent cash flows.

Retirement System Summary | As of June 30, 2023

	Market Value (\$)	% of Portfolio	% of Sector	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
HarbourVest Fund XII (Net)	835,278	0.4	2.2								
Infrastructure Assets (Net)	18,063,854	7.9	7.9	2.5	5.2	9.6	12.4	--	--	10.7	Oct-18
<i>CPI + 3%</i>				<i>1.8</i>	<i>4.3</i>	<i>6.1</i>	<i>8.9</i>	<i>7.0</i>	<i>5.8</i>	<i>7.2</i>	<i>Oct-18</i>
IFM Global Infrastructure (U.S.), L.P. (Net)	18,063,854	7.9	100.0	2.5	5.2	9.6	12.4	--	--	10.7	Oct-18
<i>CPI + 3%</i>				<i>1.8</i>	<i>4.3</i>	<i>6.1</i>	<i>8.9</i>	<i>7.0</i>	<i>5.8</i>	<i>7.2</i>	<i>Oct-18</i>
Cash (Net)	915,902	0.4	0.4								
Cash STIF (Net)	915,902	0.4	100.0								

	Calendar Year Performance									
	2022 (%)	2021 (%)	2020 (%)	2019 (%)	2018 (%)	2017 (%)	2016 (%)	2015 (%)	2014 (%)	2013 (%)
Total Retirement System (Net)	-8.6	16.2	14.1	17.4	-3.2	14.3	9.6	-2.7	4.3	10.9
<i>60% MSCI ACWI / 40% Barclays Global Aggregate</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>	<i>5.7</i>	<i>-2.5</i>	<i>2.8</i>	<i>12.1</i>
Domestic Equity Assets (Net)	-18.2	25.2	21.5	30.8	-5.6	20.9	13.0	0.4	12.4	33.5
<i>Russell 3000</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>	<i>12.7</i>	<i>0.5</i>	<i>12.6</i>	<i>33.6</i>
SSgA Russell 1000 Value Index-NL (Net)	-7.6	25.1	2.8	26.5	-8.3	13.7	17.2	-3.8	13.3	32.4
<i>Russell 1000 Value</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>	<i>17.3</i>	<i>-3.8</i>	<i>13.5</i>	<i>32.5</i>
SSgA Russell 1000 Growth-NL (Net)	-29.2	27.5	38.4	36.3	-1.8	30.1	7.1	5.5	13.0	33.3
<i>Russell 1000 Growth</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>	<i>7.1</i>	<i>5.7</i>	<i>13.0</i>	<i>33.5</i>
SSgA Russell 2000 Index-NL (Net)	-20.3	14.9	19.9	25.5	-11.0	14.6	21.4	-4.5	4.9	38.7
<i>Russell 2000</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>	<i>21.3</i>	<i>-4.4</i>	<i>4.9</i>	<i>38.8</i>
Total International Developed Market Equity (Net)	-16.4	10.9	9.2	23.1	-14.8	27.3	1.6	2.0	-4.7	24.4
<i>MSCI EAFE</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>	<i>1.0</i>	<i>-0.8</i>	<i>-4.9</i>	<i>22.8</i>
SSgA MSCI EAFE Index-NL (Net)	-14.2	11.4	8.2	22.4	-13.6	25.4	1.3	-0.6	-4.7	23.0
<i>MSCI EAFE</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>	<i>1.0</i>	<i>-0.8</i>	<i>-4.9</i>	<i>22.8</i>
SSgA MSCI EAFE Small Cap Index-NL (Net)	-21.1	9.9	12.2	24.7	-17.8	33.0	2.2	9.4	-4.9	29.2
<i>MSCI EAFE Small Cap</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>	<i>2.2</i>	<i>9.6</i>	<i>-4.9</i>	<i>29.3</i>
International Emerging Market Equity Assets (Net)	-21.2	-1.5	24.6	15.8	-17.9	31.8	11.7	-17.9	-4.4	-3.8
<i>MSCI Emerging Markets</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>	<i>11.2</i>	<i>-14.9</i>	<i>-2.2</i>	<i>-2.6</i>
GQG Partners Emerging Markets (Net)	-21.2	-1.5	33.9	--	--	--	--	--	--	--
<i>MSCI Emerging Markets</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>	<i>11.2</i>	<i>-14.9</i>	<i>-2.2</i>	<i>-2.6</i>

Retirement System Summary | As of June 30, 2023

	2022 (%)	2021 (%)	2020 (%)	2019 (%)	2018 (%)	2017 (%)	2016 (%)	2015 (%)	2014 (%)	2013 (%)
Investment Grade Bond Assets (Net)	-13.1	-0.2	9.2	8.9	-0.1	3.5	2.7	0.8	6.1	-3.1
<i>Bloomberg US Aggregate TR</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>	<i>2.6</i>	<i>0.5</i>	<i>6.0</i>	<i>-2.0</i>
Longfellow Investment Grade Bond (Net)	-13.1	-0.2	9.2	8.9	-0.1	--	--	--	--	--
<i>Bloomberg US Aggregate TR</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>	<i>2.6</i>	<i>0.5</i>	<i>6.0</i>	<i>-2.0</i>
High Yield Bond Assets (Net)	-13.0	5.8	8.6	15.5	-3.7	6.8	11.5	-0.2	4.1	6.0
<i>CSFB High Yield Index</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>	<i>18.3</i>	<i>-4.9</i>	<i>1.9</i>	<i>7.5</i>
Lord Abbett High Yield Core (Net)	-12.9	5.8	8.6	--	--	--	--	--	--	--
<i>Bloomberg US High Yield TR</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>	<i>17.1</i>	<i>-4.5</i>	<i>2.5</i>	<i>7.4</i>
TIPS Assets (Net)	-12.0	5.9	10.9	8.4	-1.3	3.0	4.6	-1.4	3.6	-8.6
<i>Bloomberg US TIPS TR</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>	<i>4.7</i>	<i>-1.4</i>	<i>3.6</i>	<i>-8.6</i>
SSgA TIPS-NL (Net)	-12.0	5.9	10.9	8.4	-1.3	2.9	4.4	-1.4	3.6	-8.6
<i>Bloomberg US TIPS TR</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>	<i>4.7</i>	<i>-1.4</i>	<i>3.6</i>	<i>-8.6</i>
Emerging Market Debt Assets (Net)	-15.3	-4.0	5.5	14.9	-7.1	13.1	10.0	-15.2	-8.5	--
<i>50% JPM EMBI GD / 50% JPM GBI-EM</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>	<i>10.2</i>	<i>-7.1</i>	<i>0.7</i>	<i>-7.1</i>
Metlife Emerging Markets Debt (Net)	-13.3	-3.7	6.1	14.5	-6.6	13.4	--	--	--	--
<i>MetLife Custom Benchmark</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>	<i>10.0</i>	<i>-3.8</i>	<i>1.9</i>	<i>-5.2</i>
Aberdeen Emerging Markets Bond Fund (Net)	-16.6	-4.0	5.0	15.3	-7.5	12.7	--	--	--	--
<i>JP Morgan EMBI Global Diversified</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>	<i>10.2</i>	<i>1.2</i>	<i>7.4</i>	<i>-5.3</i>
<i>JP Morgan GBI EM Global Diversified TR USD</i>	<i>-11.7</i>	<i>-8.7</i>	<i>2.7</i>	<i>13.5</i>	<i>-6.2</i>	<i>15.2</i>	<i>9.9</i>	<i>-14.9</i>	<i>-5.7</i>	<i>-9.0</i>

Metlife Custom Benchmark consists of 35% JP Morgan EMBI Global Diversified, 35% JP Morgan CEMBI Broad Diversified, and 30% JP Morgan GBI EM Global Diversified.

Retirement System Summary | As of June 30, 2023

	2022 (%)	2021 (%)	2020 (%)	2019 (%)	2018 (%)	2017 (%)	2016 (%)	2015 (%)	2014 (%)	2013 (%)
Real Estate Assets (Net)	7.8	19.4	0.5	8.1	8.3	8.4	9.0	13.8	12.8	10.1
<i>NCREIF ODCE (net)</i>	6.5	21.1	0.3	4.4	7.4	6.7	7.8	14.0	11.5	12.9
TA Associates Realty Fund X (Net)	38.9	3.5	-6.4	37.5	12.9	13.1	12.2	14.8	12.3	--
<i>NCREIF ODCE (net)</i>	6.5	21.1	0.3	4.4	7.4	6.7	7.8	14.0	11.5	12.9
<i>NCREIF Property Index</i>	5.5	17.7	1.6	6.4	6.7	7.0	8.0	13.3	11.8	11.0
Intercontinental U.S. REIF (Net)	7.4	20.0	1.0	8.2	9.3	7.5	10.9	12.7	--	--
<i>NCREIF ODCE (net)</i>	6.5	21.1	0.3	4.4	7.4	6.7	7.8	14.0	11.5	12.9
AEW Core Property Trust (Net)	7.8	20.8	0.3	5.1	6.6	6.6	7.6	12.8	--	--
<i>NCREIF ODCE (net)</i>	6.5	21.1	0.3	4.4	7.4	6.7	7.8	14.0	11.5	12.9
AEW Partners IX, L.P. (Net)	5.6	--	--	--	--	--	--	--	--	--
<i>NCREIF ODCE (net)</i>	6.5	21.1	0.3	4.4	7.4	6.7	7.8	14.0	11.5	12.9
Private Equity Assets (Net)	11.1	46.1	25.3	15.7	13.7	11.8	6.3	0.8	13.5	9.5
<i>Preqin Private Equity IQ Lagged</i>	2.9	44.7	17.0	10.2	15.7	18.0	10.2	10.9	16.4	15.1
Ascent Venture Partners - Fund V (Net)										
Ascent Venture Partners - Fund VI (Net)										
Constitution Capital Partners Ironsides III (Net)										
Constitution Capital Partners Ironsides IV (Net)										
Constitution Capital Partners Ironsides V (Net)										
Constitution Capital Direct IV (Net)										
Constitution Capital Direct V (Net)										
Constitution Capital Co-Investment Fund VI, L.P. (Net)										

Retirement System Summary | As of June 30, 2023

	2022 (%)	2021 (%)	2020 (%)	2019 (%)	2018 (%)	2017 (%)	2016 (%)	2015 (%)	2014 (%)	2013 (%)
Goldman Sachs PEP 2005 (Net)										
HarbourVest Partners VIII (Net)										
HarbourVest Partners IX (Net)										
HarbourVest X Buyout Fund (Net)										
HarbourVest Partners XI (Net)										
HarbourVest Fund XII (Net)										
Infrastructure Assets (Net)	8.2	17.4	3.1	14.6	--	--	--	--	--	--
<i>CPI + 3%</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>	<i>5.1</i>	<i>3.7</i>	<i>3.8</i>	<i>4.5</i>
IFM Global Infrastructure (U.S.), L.P. (Net)	8.2	17.4	3.1	14.6	--	--	--	--	--	--
<i>CPI + 3%</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>	<i>5.1</i>	<i>3.7</i>	<i>3.8</i>	<i>4.5</i>
Cash (Net)										
Cash STIF (Net)										

Statistics Summary						
5 Years Ending June 30, 2023						
	Anlzd Return	Anlzd Standard Deviation	Information Ratio	Beta	Sharpe Ratio	Tracking Error
Total Retirement System	7.9%	8.9%	0.7	0.7	0.7	4.9%
60% MSCI ACWI / 40% Barclays Global Aggregate	4.6%	12.5%	--	1.0	0.3	0.0%
Total Equity	7.9%	17.7%	-0.9	0.9	0.4	3.7%
Russell 3000	11.4%	19.4%	--	1.0	0.5	0.0%
Domestic Equity Assets	11.3%	19.3%	-0.1	1.0	0.5	0.5%
Russell 3000	11.4%	19.4%	--	1.0	0.5	0.0%
SSgA Russell 1000 Value Index-NL	8.0%	19.1%	-1.1	1.0	0.3	0.1%
Russell 1000 Value	8.1%	19.1%	--	1.0	0.3	0.0%
SSgA Russell 1000 Growth-NL	15.0%	21.1%	-2.2	1.0	0.6	0.1%
Russell 1000 Growth	15.1%	21.1%	--	1.0	0.6	0.0%
SSgA Russell 2000 Index-NL	4.2%	24.0%	0.2	1.0	0.1	0.1%
Russell 2000	4.2%	24.0%	--	1.0	0.1	0.0%
International Equity Assets	3.1%	16.6%	-0.2	0.9	0.1	4.0%
MSCI ACWI ex USA IMI Gross	3.9%	17.7%	--	1.0	0.1	0.0%
Total International Developed Market Equity	3.6%	18.3%	-0.4	1.0	0.1	1.7%
MSCI EAFE	4.4%	17.8%	--	1.0	0.2	0.0%
SSgA MSCI EAFE Index-NL	4.7%	17.8%	1.9	1.0	0.2	0.1%
MSCI EAFE	4.4%	17.8%	--	1.0	0.2	0.0%

	Anlzd Return	Anlzd Standard Deviation	Information Ratio	Beta	Sharpe Ratio	Tracking Error
SSgA MSCI EAFE Small Cap Index-NL	1.3%	19.6%	0.1	1.0	0.0	0.2%
MSCI EAFE Small Cap	1.3%	19.8%	--	1.0	0.0	0.0%
International Emerging Market Equity Assets	2.6%	16.9%	0.2	0.8	0.1	7.9%
MSCI Emerging Markets	0.9%	18.9%	--	1.0	0.0	0.0%
GQG Partners Emerging Markets	--	--	--	--	--	--
MSCI Emerging Markets	0.9%	18.9%	--	1.0	0.0	0.0%
Fixed Income Assets	2.1%	6.6%	0.4	1.1	0.1	3.1%
Bloomberg US Universal TR	1.0%	5.5%	--	1.0	-0.1	0.0%
Investment Grade Bond Assets	1.4%	5.3%	0.7	1.0	0.0	0.9%
Bloomberg US Aggregate TR	0.8%	5.5%	--	1.0	-0.1	0.0%
Longfellow Investment Grade Bond	1.4%	5.3%	0.7	1.0	0.0	0.9%
Bloomberg US Aggregate TR	0.8%	5.5%	--	1.0	-0.1	0.0%
High Yield Bond Assets	3.4%	10.6%	0.1	1.1	0.2	1.8%
CSFB High Yield Index	3.2%	9.4%	--	1.0	0.2	0.0%
Lord Abbett High Yield Core	--	--	--	--	--	--
Bloomberg US High Yield TR	3.4%	9.3%	--	1.0	0.2	0.0%
TIPS Assets	2.4%	6.0%	-0.4	1.0	0.2	0.1%
Bloomberg US TIPS TR	2.5%	6.0%	--	1.0	0.2	0.0%
SSgA TIPS-NL	2.4%	6.0%	-0.5	1.0	0.2	0.1%
Bloomberg US TIPS TR	2.5%	6.0%	--	1.0	0.2	0.0%

	Anlzd Return	Anlzd Standard Deviation	Information Ratio	Beta	Sharpe Ratio	Tracking Error
Emerging Market Debt Assets	0.7%	12.4%	0.1	1.1	-0.1	2.9%
50% JPM EMBI GD / 50% JPM GBI-EM	0.5%	11.1%	--	1.0	-0.1	0.0%
Metlife Emerging Markets Debt	1.4%	12.5%	0.0	1.3	0.0	3.5%
MetLife Custom Benchmark	1.3%	9.6%	--	1.0	0.0	0.0%
Aberdeen Emerging Markets Bond Fund	0.2%	12.5%	-0.1	1.1	-0.1	2.6%
JP Morgan EMBI Global Diversified	0.6%	11.2%	--	1.0	-0.1	0.0%
Real Estate Assets	6.5%	6.5%	0.6	0.9	0.8	1.6%
NCREIF ODCE (net)	5.6%	7.0%	--	1.0	0.6	0.0%
TA Associates Realty Fund X	12.2%	16.9%	0.4	0.2	0.6	17.8%
NCREIF ODCE (net)	5.6%	7.0%	--	1.0	0.6	0.0%
Intercontinental U.S. REIF	5.7%	7.6%	0.0	1.0	0.5	2.6%
NCREIF ODCE (net)	5.6%	7.0%	--	1.0	0.6	0.0%
AEW Core Property Trust	6.3%	7.0%	0.3	0.9	0.7	2.2%
NCREIF ODCE (net)	5.6%	7.0%	--	1.0	0.6	0.0%
AEW Partners IX, L.P.	--	--	--	--	--	--
NCREIF ODCE (net)	5.6%	7.0%	--	1.0	0.6	0.0%
Private Equity Assets	20.8%	12.7%	1.5	1.0	1.5	3.5%
Preqin Private Equity 1Q Lagged	15.6%	12.1%	--	1.0	1.2	0.0%
Ascent Venture Partners - Fund V	-1.9%	12.0%	-1.5	0.5	-0.3	11.7%
Preqin Private Equity 1Q Lagged	15.6%	12.1%	--	1.0	1.2	0.0%

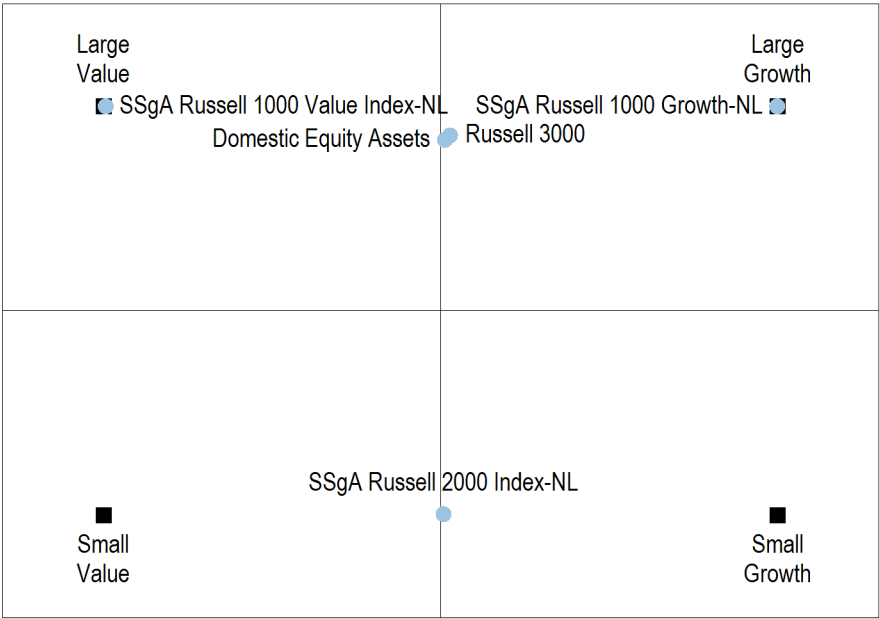
	Anlzd Return	Anlzd Standard Deviation	Information Ratio	Beta	Sharpe Ratio	Tracking Error
Ascent Venture Partners - Fund VI	1.4%	7.7%	-1.2	0.2	0.0	11.7%
Preqin Private Equity 1Q Lagged	15.6%	12.1%	--	1.0	1.2	0.0%
Constitution Capital Partners Ironsides III	33.0%	17.4%	1.5	1.0	1.8	11.9%
Preqin Private Equity 1Q Lagged	15.6%	12.1%	--	1.0	1.2	0.0%
Constitution Capital Partners Ironsides IV	30.6%	16.9%	1.4	1.1	1.7	10.9%
Preqin Private Equity 1Q Lagged	15.6%	12.1%	--	1.0	1.2	0.0%
Constitution Capital Partners Ironsides V	--	--	--	--	--	--
Preqin Private Equity 1Q Lagged	15.6%	12.1%	--	1.0	1.2	0.0%
Constitution Capital Direct IV	16.6%	19.4%	0.1	1.0	0.8	14.8%
Preqin Private Equity 1Q Lagged	15.6%	12.1%	--	1.0	1.2	0.0%
Constitution Capital Direct V	--	--	--	--	--	--
Preqin Private Equity 1Q Lagged	15.6%	12.1%	--	1.0	1.2	0.0%
Constitution Capital Co-Investment Fund VI, L.P.	--	--	--	--	--	--
Preqin Private Equity 1Q Lagged	15.6%	12.1%	--	1.0	1.2	0.0%
Goldman Sachs PEP 2005	1.0%	19.0%	-0.9	0.9	0.0	15.8%
Preqin Private Equity 1Q Lagged	15.6%	12.1%	--	1.0	1.2	0.0%
HarbourVest Partners VIII	13.8%	14.2%	-0.2	1.0	0.9	6.9%
Preqin Private Equity 1Q Lagged	15.6%	12.1%	--	1.0	1.2	0.0%
HarbourVest Partners IX	18.4%	14.5%	0.6	1.1	1.2	4.8%
Preqin Private Equity 1Q Lagged	15.6%	12.1%	--	1.0	1.2	0.0%

Retirement System Summary | As of June 30, 2023

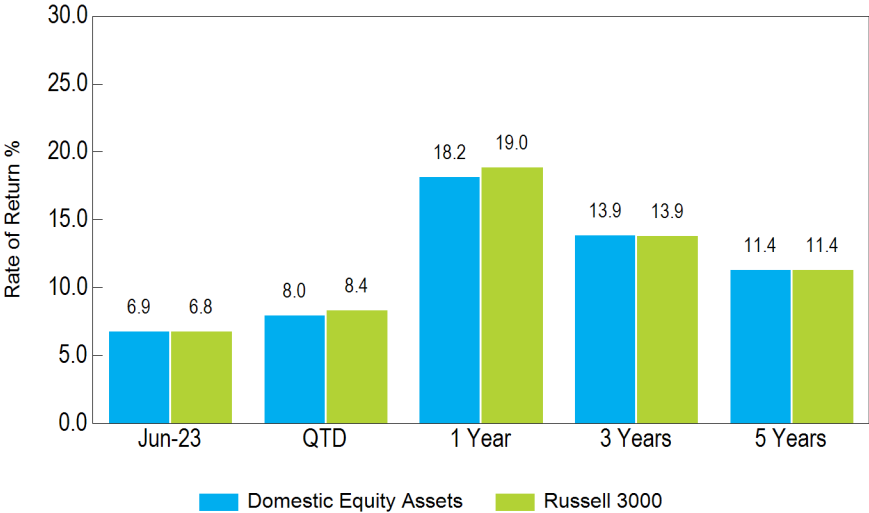
	Anlzd Return	Anlzd Standard Deviation	Information Ratio	Beta	Sharpe Ratio	Tracking Error
HarbourVest X Buyout Fund	20.1%	14.7%	0.7	1.1	1.3	6.4%
Preqin Private Equity 1Q Lagged	15.6%	12.1%	--	1.0	1.2	0.0%
HarbourVest Partners XI	--	--	--	--	--	--
Preqin Private Equity 1Q Lagged	15.6%	12.1%	--	1.0	1.2	0.0%
HarbourVest Fund XII	--	--	--	--	--	--
Preqin Private Equity 1Q Lagged	15.6%	12.1%	--	1.0	1.2	0.0%
Infrastructure Assets	--	--	--	--	--	--
CPI + 3%	7.0%	1.4%	--	1.0	4.0	0.0%
IFM Global Infrastructure (U.S.), L.P.	--	--	--	--	--	--
CPI + 3%	7.0%	1.4%	--	1.0	4.0	0.0%

Asset Allocation on June 30, 2023		
	Actual	Actual
SSgA Russell 1000 Growth-NL	\$25,597,397	46.4%
SSgA Russell 1000 Value Index-NL	\$25,046,701	45.4%
SSgA Russell 2000 Index-NL	\$4,555,356	8.3%
Total	\$55,199,454	100.0%

Domestic Equity Assets Style Map
3 Years Ending June 30, 2023



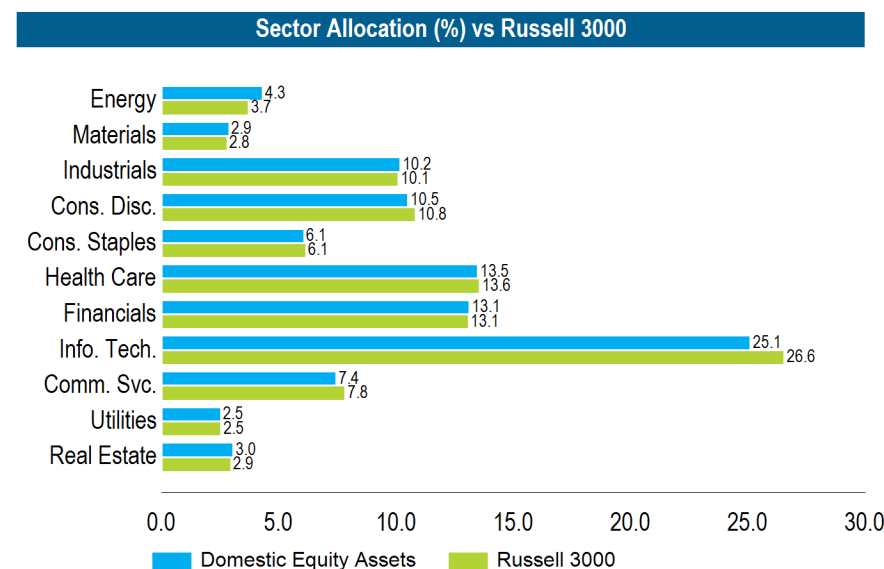
Return Summary
Ending June 30, 2023



Domestic Equity Assets | As of June 30, 2023

Domestic Equity Assets Characteristics			
	Portfolio Q2-23	Index Q2-23	Portfolio Q1-23
Market Value			
Market Value (\$M)	55.2	--	52.9
Number Of Holdings	2984	3010	2935
Characteristics			
Weighted Avg. Market Cap. (\$B)	561.0	591.9	433.6
Median Market Cap (\$B)	3.0	2.4	3.2
P/E Ratio	21.8	22.6	19.4
Yield	1.6	1.5	1.7
EPS Growth - 5 Yrs.	15.7	15.7	17.6
Price to Book	4.0	4.2	3.7

Top 10 Holdings	
APPLE INC	6.2%
MICROSOFT CORP	5.4%
AMAZON.COM INC	2.5%
NVIDIA CORPORATION	2.1%
TESLA INC	1.5%
ALPHABET INC	1.5%
BERKSHIRE HATHAWAY INC	1.4%
META PLATFORMS INC	1.4%
ALPHABET INC	1.3%
EXXON MOBIL CORP	1.0%
Total	24.4%

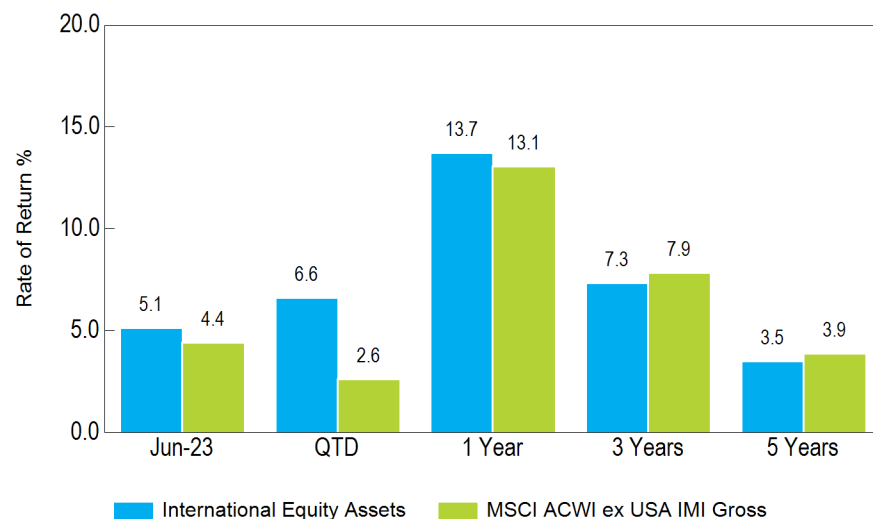


	Portfolio Q2-23	Index Q2-23
Sector Performance		
Energy	-7.71	-1.17
Materials	-7.67	2.77
Industrials	-3.69	7.97
Consumer Discretionary	1.24	12.86
Consumer Staples	-2.81	0.43
Health Care	-1.36	3.32
Financials	-1.89	4.93
Information Technology	9.26	16.75
Communication Services	8.96	12.27
Utilities	-4.82	-2.78
Real Estate	-4.03	1.53

Asset Allocation on June 30, 2023

	Actual	Actual
GQG Partners Emerging Markets	\$21,582,964	51.1%
SSgA MSCI EAFE Index-NL	\$14,530,099	34.4%
SSgA MSCI EAFE Small Cap Index-NL	\$6,162,011	14.6%
Total	\$42,275,074	100.0%

Return Summary Ending June 30, 2023



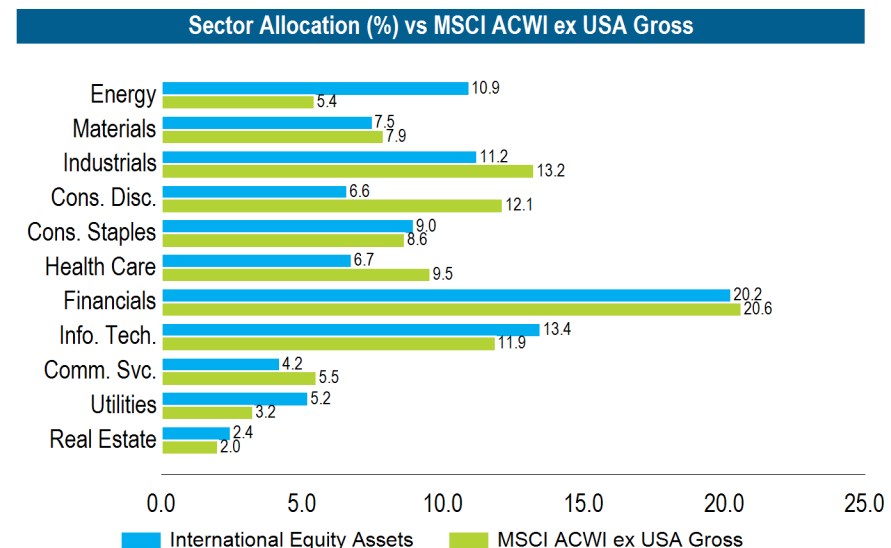
International Equity Assets Style Map 3 Years Ending June 30, 2023



International Equity Assets | As of June 30, 2023

Total International Equity Characteristics			
	Portfolio Q2-23	Index Q2-23	Portfolio Q1-23
Market Value			
Market Value (\$M)	42.3	--	39.7
Number Of Holdings	3291	2306	3251
Characteristics			
Weighted Avg. Market Cap. (\$B)	114.4	90.7	83.2
Median Market Cap (\$B)	1.9	9.3	1.9
P/E Ratio	12.5	13.8	12.0
Yield	4.9	3.3	5.4
EPS Growth - 5 Yrs.	13.9	10.0	12.6
Price to Book	2.5	2.4	2.7

Top 10 Holdings	
ITC LTD	4.2%
PETROLEO BRASILEIRO S.A. - PETROBRAS	2.6%
NVIDIA CORPORATION	2.5%
ASML HOLDING NV	2.1%
TOTALENERGIES SE	1.9%
ITAU UNIBANCO HOLDING PN	1.8%
TAIWAN SEMICONDUCTOR MANUFACTURING CO LTD	1.7%
HOUSING DEVELOPMENT FINANCE CORP LTD	1.6%
PETROLEO BRASILEIRO S.A. - PETROBRAS	1.6%
TAIWAN SEMICONDUCTOR MANUFACTURING CO LTD	1.6%
Total	21.7%



	Portfolio Q2-23	Index Q2-23
Sector Performance		
Energy	-3.44	3.67
Materials	-8.22	-2.46
Industrials	1.00	5.59
Consumer Discretionary	-1.76	2.04
Consumer Staples	-3.37	-0.36
Health Care	0.57	1.59
Financials	0.71	5.21
Information Technology	3.06	6.17
Communication Services	-4.44	-4.30
Utilities	-1.04	4.21
Real Estate	-3.37	-2.51

Total International Equity Region Allocation			
vs MSCI ACWI ex USA Gross			
Region	% of Total	% of Bench	% Diff
North America ex U.S.	0.0%	7.6%	-7.6%
United States	5.1%	0.0%	5.1%
Europe Ex U.K.	26.2%	33.0%	-6.8%
United Kingdom	6.0%	9.5%	-3.6%
Pacific Basin Ex Japan	5.6%	7.4%	-1.8%
Japan	12.0%	14.5%	-2.4%
Emerging Markets	44.1%	27.4%	16.7%
Other	1.0%	0.6%	0.4%
Total	100.0%	100.0%	0.0%

Total International Equity Country Allocation

vs MSCI ACWI ex USA Gross

Country	% of Total	% of Bench	% Diff
ARGENTINA	0.0%	0.0%	0.0%
AUSTRALIA	3.6%	4.7%	-1.1%
AUSTRIA	0.2%	0.1%	0.1%
BAHRAIN	0.0%	0.0%	0.0%
BANGLADESH	0.0%	0.0%	0.0%
BELGIUM	0.5%	0.6%	-0.1%
BRAZIL	10.8%	1.5%	9.3%
CANADA	0.0%	7.6%	-7.6%
CHILE	0.0%	0.2%	-0.2%
CHINA	6.4%	8.2%	-1.8%
COLOMBIA	0.0%	0.0%	0.0%
CROATIA	0.0%	0.0%	0.0%
CZECH REPUBLIC	0.0%	0.0%	0.0%
DENMARK	1.4%	2.0%	-0.6%
EGYPT	0.0%	0.0%	0.0%
ESTONIA	0.0%	0.0%	0.0%
FINLAND	0.6%	0.6%	0.0%
FRANCE	6.1%	8.0%	-1.9%
GERMANY	3.6%	5.6%	-1.9%
GREECE	0.0%	0.1%	-0.1%

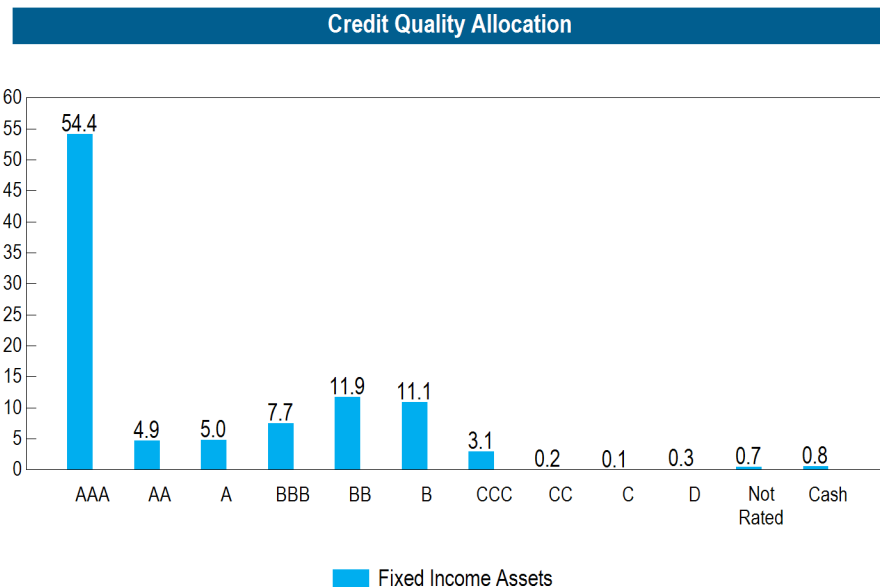
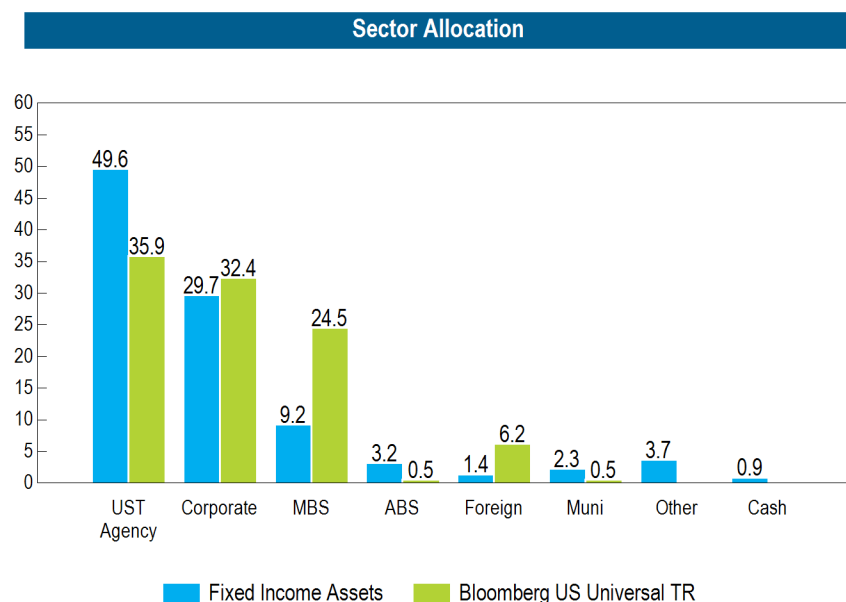
Country	% of Total	% of Bench	% Diff
HONG KONG	1.0%	1.6%	-0.6%
HUNGARY	0.0%	0.1%	-0.1%
INDIA	17.0%	4.1%	13.0%
INDONESIA	2.3%	0.6%	1.8%
IRELAND	0.5%	0.5%	0.0%
ISRAEL	0.6%	0.4%	0.2%
ITALY	1.2%	1.6%	-0.4%
JAPAN	12.0%	14.5%	-2.4%
JORDAN	0.0%	0.0%	0.0%
KAZAKHSTAN	0.0%	0.0%	0.0%
KENYA	0.0%	0.0%	0.0%
KOREA	2.2%	3.4%	-1.2%
KUWAIT	0.0%	0.2%	-0.2%
LEBANON	0.0%	0.0%	0.0%
LITHUANIA	0.0%	0.0%	0.0%
LUXEMBOURG	0.2%	0.0%	0.2%
MALAYSIA	0.0%	0.4%	-0.3%
MAURITIUS	0.0%	0.0%	0.0%
MEXICO	1.3%	0.8%	0.5%
MOROCCO	0.0%	0.0%	0.0%
NETHERLANDS	4.3%	3.0%	1.3%
NEW ZEALAND	0.2%	0.1%	0.1%
NIGERIA	0.0%	0.0%	0.0%

Country	% of Total	% of Bench	% Diff
NORWAY	0.5%	0.4%	0.0%
OMAN	0.0%	0.0%	0.0%
OTHER	0.4%	0.0%	0.4%
PAKISTAN	0.0%	0.0%	0.0%
PERU	0.0%	0.1%	-0.1%
PHILIPPINES	0.0%	0.2%	-0.2%
POLAND	0.0%	0.2%	-0.2%
PORTUGAL	0.1%	0.1%	0.0%
QATAR	0.0%	0.2%	-0.2%
ROMANIA	0.0%	0.0%	0.0%
RUSSIA	0.0%	0.0%	0.0%
SAUDI ARABIA	0.0%	1.2%	-1.2%
SERBIA	0.0%	0.0%	0.0%
SINGAPORE	0.7%	0.9%	-0.2%
SLOVENIA	0.0%	0.0%	0.0%
SOUTH AFRICA	0.0%	0.9%	-0.9%
SPAIN	1.2%	1.7%	-0.5%
SRI LANKA	0.0%	0.0%	0.0%
SWEDEN	1.7%	2.1%	-0.4%
SWITZERLAND	4.2%	6.5%	-2.3%
TAIWAN	3.4%	4.3%	-1.0%
THAILAND	0.0%	0.5%	-0.5%
TUNISIA	0.0%	0.0%	0.0%

Country	% of Total	% of Bench	% Diff
TURKEY	0.6%	0.2%	0.5%
UNITED ARAB EMIRATES	0.0%	0.4%	-0.4%
UNITED KINGDOM	6.0%	9.5%	-3.6%
UNITED STATES	5.1%	0.0%	5.1%
VIETNAM	0.0%	0.0%	0.0%
Total	100.0%	100.0%	0.0%

Asset Allocation on June 30, 2023		
	Actual	Actual
Aberdeen Emerging Markets Bond Fund	\$5,414,031	11.0%
Longfellow Investment Grade Bond	\$18,790,917	38.1%
Lord Abbett High Yield Core	\$9,041,586	18.3%
Metlife Emerging Markets Debt	\$4,021,199	8.2%
SSgA TIPS-NL	\$12,035,266	24.4%
Total	\$49,302,999	100.0%

Total Fixed Income Fixed Income Characteristics vs. Bloomberg US Universal TR			
	Portfolio Q2-23	Index Q2-23	Portfolio Q1-23
Fixed Income Characteristics			
Yield to Maturity	6.25	5.25	5.94
Average Duration	5.43	6.07	5.64
Average Quality	A	AA	A
Weighted Average Maturity	8.28	12.20	8.34



SSgA Russell 1000 Value Index-NL | As of June 30, 2023

Account Information	
Account Name	SSgA Russell 1000 Value Index-NL
Account Structure	Commingled Fund
Investment Style	Passive
Inception Date	1/01/05
Account Type	Equity
Benchmark	Russell 1000 Value
Universe	eV US Large Cap Value Equity Net

Portfolio Performance Summary								
	QTD	YTD	1 Yr	3 Yrs	5 Yrs	Inception	Inception	
	(%)	(%)	(%)	(%)	(%)	(%)	Date	
SSgA Russell 1000 Value Index-NL	4.1	5.1	11.5	14.3	8.0	7.4	Jan-05	
Russell 1000 Value	4.1	5.1	11.5	14.3	8.1	7.4	Jan-05	
eV US Large Cap Value Equity Net Median	3.9	4.6	11.6	14.8	8.5	7.9	Jan-05	
eV US Large Cap Value Equity Net Rank	45	46	51	57	63	73	Jan-05	

Top 10 Holdings	
BERKSHIRE HATHAWAY INC	3.2%
EXXON MOBIL CORP	2.2%
JOHNSON & JOHNSON	2.2%
JPMORGAN CHASE & CO	2.2%
PROCTER & GAMBLE CO (THE)	1.5%
CHEVRON CORP	1.4%
MERCK & CO INC	1.2%
WALMART INC	1.1%
CISCO SYSTEMS INC	1.1%
PFIZER INC	1.1%
Total	17.1%

SSgA Russell 1000 Value Index-NL Characteristics			
	Portfolio	Index	Portfolio
	Q2-23	Q2-23	Q1-23
Market Value			
Market Value (\$M)	25.0	--	25.9
Number Of Holdings	844	844	850
Characteristics			
Weighted Avg. Market Cap. (\$B)	139.8	140.0	154.4
Median Market Cap (\$B)	12.6	12.6	12.2
P/E Ratio	16.7	17.0	16.2
Yield	2.4	2.4	2.3
EPS Growth - 5 Yrs.	11.8	11.5	12.5
Price to Book	2.5	2.5	2.5
Sector Distribution			
Energy	7.8	7.0	7.9
Materials	4.8	4.9	4.4
Industrials	13.3	13.8	10.7
Consumer Discretionary	5.0	5.0	5.8
Consumer Staples	8.3	8.4	7.6
Health Care	15.6	16.0	16.2
Financials	19.9	20.4	19.9
Information Technology	8.9	9.2	7.9
Communication Services	5.0	5.2	8.5
Utilities	5.0	5.2	5.4
Real Estate	4.8	4.9	4.4

Account Information

Account Name	SSgA Russell 1000 Growth-NL
Account Structure	Commingled Fund
Investment Style	Passive
Inception Date	7/01/07
Account Type	Equity
Benchmark	Russell 1000 Growth
Universe	eV US Large Cap Growth Equity Net

Portfolio Performance Summary

	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	Inception (%)	Inception Date
SSgA Russell 1000 Growth-NL	12.8	29.0	27.0	13.7	15.0	11.5	Jul-07
<i>Russell 1000 Growth</i>	12.8	29.0	27.1	13.7	15.1	11.6	Jul-07
<i>eV US Large Cap Growth Equity Net Median</i>	11.3	25.2	23.8	10.7	12.5	10.3	Jul-07
<i>eV US Large Cap Growth Equity Net Rank</i>	32	28	28	17	10	12	Jul-07

Top 10 Holdings

APPLE INC	13.3%
MICROSOFT CORP	11.7%
AMAZON.COM INC	5.4%
NVIDIA CORPORATION	4.6%
TESLA INC	3.3%
ALPHABET INC	3.3%
META PLATFORMS INC	2.9%
ALPHABET INC	2.9%
ELI LILLY AND CO	1.8%
VISA INC	1.8%
Total	51.0%

SSgA Russell 1000 Growth-NL Characteristics

	Portfolio Q2-23	Index Q2-23	Portfolio Q1-23
Market Value			
Market Value (\$M)	25.6	--	22.7
Number Of Holdings	434	444	505
Characteristics			
Weighted Avg. Market Cap. (\$B)	1,054.5	1,053.9	823.7
Median Market Cap (\$B)	19.7	17.9	17.1
P/E Ratio	35.0	35.1	27.8
Yield	0.8	0.8	1.0
EPS Growth - 5 Yrs.	19.4	19.3	23.2
Price to Book	11.2	11.3	9.4
Sector Distribution			
Energy	0.5	0.4	1.4
Materials	0.7	0.7	1.3
Industrials	6.0	6.0	8.1
Consumer Discretionary	15.9	16.0	14.3
Consumer Staples	4.4	4.4	6.0
Health Care	11.0	11.0	11.7
Financials	6.3	6.4	6.7
Information Technology	43.1	43.4	41.8
Communication Services	10.7	10.8	7.2
Utilities	0.1	0.1	0.0
Real Estate	0.9	0.9	1.5

Account Information

Account Name	SSgA Russell 2000 Index-NL
Account Structure	Commingled Fund
Investment Style	Passive
Inception Date	8/01/10
Account Type	Equity
Benchmark	Russell 2000
Universe	eV US Small Cap Core Equity Net

Portfolio Performance Summary

	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	Inception (%)	Inception Date
SSgA Russell 2000 Index-NL	5.2	8.1	12.5	10.9	4.2	10.1	Aug-10
Russell 2000	5.2	8.1	12.3	10.8	4.2	10.1	Aug-10
eV US Small Cap Core Equity Net Median	4.6	8.7	13.8	14.2	6.8	11.5	Aug-10
eV US Small Cap Core Equity Net Rank	36	57	66	86	90	79	Aug-10

Top 10 Holdings

CASH - USD	3.7%
SUPER MICRO COMPUTER INC	0.5%
SPS COMMERCE INC	0.3%
RAMBUS INC	0.3%
CHART INDUSTRIES INC	0.3%
NOVANTA INC	0.3%
OASIS PETROLEUM INC	0.3%
LIGHT & WONDER INC	0.3%
CHAMPIONX CORP	0.3%
ATKORE INC	0.2%
Total	6.3%

SSgA Russell 2000 Index-NL Characteristics

	Portfolio Q2-23	Index Q2-23	Portfolio Q1-23
Market Value			
Market Value (\$M)	4.6	--	4.3
Number Of Holdings	1975	2002	1917
Characteristics			
Weighted Avg. Market Cap. (\$B)	2.9	2.9	2.9
Median Market Cap (\$B)	1.0	1.0	1.1
P/E Ratio	13.1	13.2	12.7
Yield	1.7	1.7	1.7
EPS Growth - 5 Yrs.	14.9	14.9	16.5
Price to Book	2.4	2.4	2.4
Sector Distribution			
Energy	6.3	6.8	5.8
Materials	4.4	4.6	4.2
Industrials	16.6	17.3	15.6
Consumer Discretionary	10.0	10.5	10.4
Consumer Staples	3.2	3.5	3.4
Health Care	15.9	16.9	14.4
Financials	14.1	15.1	14.4
Information Technology	12.7	13.7	11.2
Communication Services	2.4	2.5	2.5
Utilities	2.9	3.0	3.1
Real Estate	5.7	6.1	5.7

Account Information

Account Name	SSgA MSCI EAFE Index-NL
Account Structure	Commingled Fund
Investment Style	Passive
Inception Date	8/01/10
Account Type	Equity
Benchmark	MSCI EAFE
Universe	eV EAFE Core Equity Net

Portfolio Performance Summary

	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	Inception (%)	Inception Date
SSgA MSCI EAFE Index-NL	3.1	11.9	19.1	9.2	4.7	6.0	Aug-10
MSCI EAFE	3.0	11.7	18.8	8.9	4.4	5.8	Aug-10
eV EAFE Core Equity Net Median	2.6	10.7	16.2	8.2	3.8	6.6	Aug-10
eV EAFE Core Equity Net Rank	40	33	19	33	30	75	Aug-10

Top 10 Holdings

GENERIC FUTURE	2.5%
NESTLE SA, CHAM UND VEVEY	2.0%
ASML HOLDING NV	1.8%
NOVO NORDISK 'B'	1.6%
LVMH MOET HENNESSY LOUIS VUITTON SE	1.6%
ASTRAZENECA PLC	1.3%
ROCHE HOLDING AG	1.3%
NOVARTIS AG	1.3%
CASH - USD	1.3%
SHELL PLC	1.2%
Total	16.0%

SSgA MSCI EAFE Index-NL Characteristics

	Portfolio Q2-23	Index Q2-23	Portfolio Q1-23
Market Value			
Market Value (\$M)	14.5	--	14.1
Number Of Holdings	975	798	810
Characteristics			
Weighted Avg. Market Cap. (\$B)	87.5	86.8	85.9
Median Market Cap (\$B)	10.3	12.4	10.7
P/E Ratio	14.8	14.8	14.7
Yield	3.2	3.3	3.2
EPS Growth - 5 Yrs.	8.6	8.7	8.3
Price to Book	2.5	2.5	2.6
Sector Distribution			
Energy	4.0	4.2	4.3
Materials	7.0	7.4	7.4
Industrials	15.4	16.3	15.0
Consumer Discretionary	11.9	12.6	11.6
Consumer Staples	9.5	10.1	9.8
Health Care	12.5	13.2	12.5
Financials	17.5	18.2	17.4
Information Technology	7.8	8.2	7.6
Communication Services	3.9	4.1	4.3
Utilities	3.3	3.5	3.3
Real Estate	2.2	2.3	2.3

Account Information

Account Name	SSgA MSCI EAFE Small Cap Index-NL
Account Structure	Commingled Fund
Investment Style	Passive
Inception Date	8/01/10
Account Type	Equity
Benchmark	MSCI EAFE Small Cap
Universe	eV EAFE Small Cap Core Net

Portfolio Performance Summary

	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	Inception (%)	Inception Date
SSgA MSCI EAFE Small Cap Index-NL	0.7	5.7	10.4	5.8	1.3	6.9	Aug-10
MSCI EAFE Small Cap	0.6	5.5	10.2	5.7	1.3	6.8	Aug-10
eV EAFE Small Cap Core Net Median	0.3	6.8	11.5	6.9	2.3	7.8	Aug-10
eV EAFE Small Cap Core Net Rank	41	69	58	60	70	80	Aug-10

Top 10 Holdings

MELROSE INDUSTRIES PLC	0.3%
BE SEMICONDUCTOR INDUSTRIES NV	0.3%
ASR NEDERLAND NV	0.3%
B&M EUROPEAN VALUE RETAIL SA	0.3%
ALLKEM LIMITED	0.3%
BANCO DE SABADELL SA	0.3%
BANCO BPM SPA	0.3%
GEORG FISCHER AG SCHAFFHAUSEN	0.2%
REXEL SA	0.2%
CARSALES.COM	0.2%
Total	2.7%

SSgA MSCI EAFE Small Cap Index-NL Characteristics

	Portfolio Q2-23	Index Q2-23	Portfolio Q1-23
Market Value			
Market Value (\$M)	6.2	--	6.1
Number Of Holdings	2422	2267	2423
Characteristics			
Weighted Avg. Market Cap. (\$B)	2.8	2.8	2.7
Median Market Cap (\$B)	1.1	1.2	1.2
P/E Ratio	13.8	13.8	12.9
Yield	3.2	3.2	3.3
EPS Growth - 5 Yrs.	7.4	7.4	7.5
Price to Book	2.1	2.1	2.2
Sector Distribution			
Energy	2.7	2.8	2.9
Materials	9.3	9.3	9.8
Industrials	22.9	23.3	22.9
Consumer Discretionary	12.7	13.0	12.5
Consumer Staples	6.1	6.2	6.2
Health Care	6.5	6.7	6.4
Financials	11.3	11.4	11.2
Information Technology	10.0	10.2	9.4
Communication Services	4.2	4.2	4.2
Utilities	2.9	2.9	3.1
Real Estate	10.0	10.1	10.2

GQG Partners Emerging Markets | As of June 30, 2023

Account Information

Account Name	GQG Partners Emerging Markets
Account Structure	Commingled Fund
Investment Style	Active
Inception Date	3/31/19
Account Type	Non-US Stock Emerging
Benchmark	MSCI Emerging Markets
Universe	eV Emg Mkts Equity Net

Portfolio Performance Summary

	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	Inception (%)	Inception Date
GQG Partners Emerging Markets	10.8	14.6	10.5	6.5	--	6.5	Mar-19
MSCI Emerging Markets	0.9	4.9	1.7	2.3	0.9	1.0	Mar-19
eV Emg Mkts Equity Net Median	2.2	7.5	6.3	4.2	2.2	2.6	Mar-19
eV Emg Mkts Equity Net Rank	2	7	29	36	--	15	Mar-19

Top 10 Holdings

ITC LTD	8.3%
PETROLEO BRASILEIRO S.A.- PETROBRAS	5.2%
NVIDIA CORPORATION	4.9%
ITAU UNIBANCO HOLDING PN	3.5%
TAIWAN SEMICONDUCTOR MANUFACTURING CO LTD	3.4%
TOTALENERGIES SE	3.2%
HOUSING DEVELOPMENT FINANCE CORP LTD	3.2%
PETROLEO BRASILEIRO S.A.- PETROBRAS	3.1%
TAIWAN SEMICONDUCTOR MANUFACTURING CO LTD	3.1%
ASML HOLDING NV	2.9%
Total	40.7%

GQG Partners Emerging Markets Characteristics

	Portfolio Q2-23	Index Q2-23	Portfolio Q1-23
Market Value			
Market Value (\$M)	21.6	--	19.5
Number Of Holdings	58	1421	63
Characteristics			
Weighted Avg. Market Cap. (\$B)	162.4	111.9	107.1
Median Market Cap (\$B)	32.7	6.7	35.0
P/E Ratio	10.2	12.2	9.6
Yield	6.4	3.4	7.6
EPS Growth - 5 Yrs.	30.3	13.5	17.8
Price to Book	2.7	2.4	3.1
Sector Distribution			
Energy	17.9	5.0	18.7
Materials	7.3	8.1	10.4
Industrials	5.0	6.3	4.3
Consumer Discretionary	1.2	13.2	0.4
Consumer Staples	9.4	6.4	15.2
Health Care	2.9	3.8	3.0
Financials	24.6	21.9	25.4
Information Technology	18.2	21.2	11.3
Communication Services	4.4	9.8	3.1
Utilities	7.1	2.6	5.9
Real Estate	0.5	1.7	0.0

Longfellow Investment Grade Bond | As of June 30, 2023

Account Information

Account Name	Longfellow Investment Grade Bond
Account Structure	Separate Account
Investment Style	Active
Inception Date	9/01/17
Account Type	Fixed
Benchmark	Bloomberg US Aggregate TR
Universe	eV US Core Fixed Inc Net

Portfolio Performance Summary

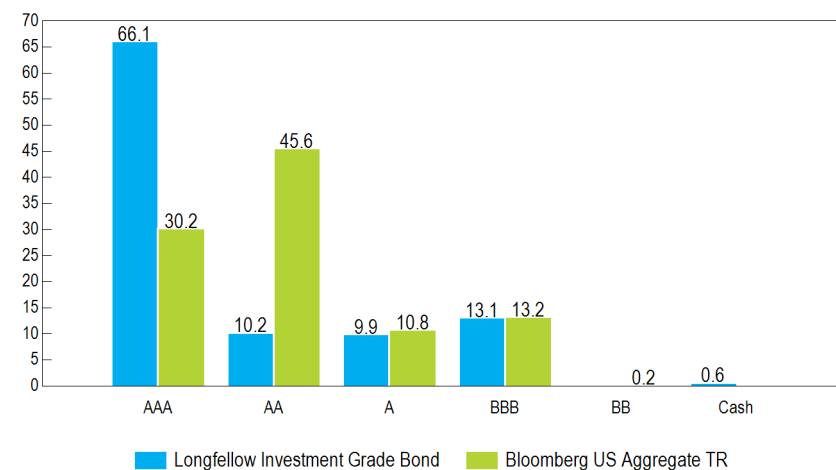
	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	Inception (%)	Inception Date
Longfellow Investment Grade Bond	-0.6	2.7	-0.1	-2.8	1.4	1.0	Sep-17
Bloomberg US Aggregate TR	-0.8	2.1	-0.9	-4.0	0.8	0.4	Sep-17
eV US Core Fixed Inc Net Median	-0.7	2.3	-0.5	-3.6	1.0	0.6	Sep-17
eV US Core Fixed Inc Net Rank	30	11	27	11	15	13	Sep-17

Longfellow Investment Grade Bond Characteristics

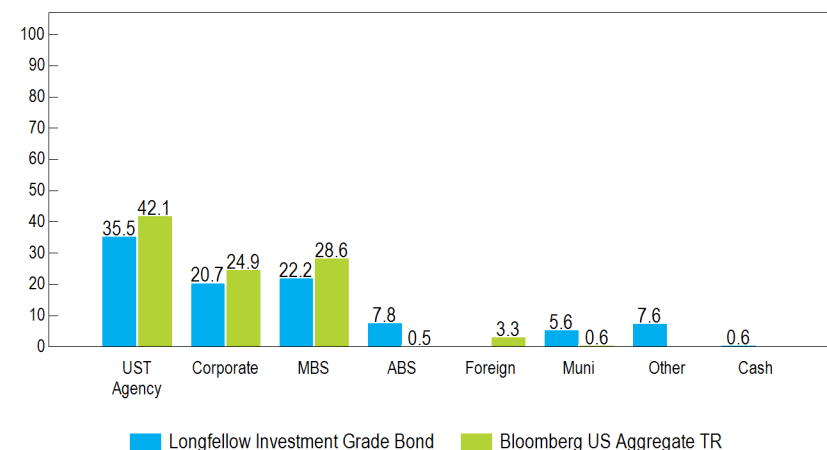
vs. Bloomberg US Aggregate TR

	Portfolio Q2-23	Index Q2-23	Portfolio Q1-23
Fixed Income Characteristics			
Yield to Maturity	5.3	4.8	5.0
Average Duration	6.3	6.3	6.2
Average Quality	AA	AA	AA
Weighted Average Maturity	9.2	13.1	9.1

Credit Quality Allocation



Sector Allocation



Lord Abbett High Yield Core | As of June 30, 2023

Account Information

Account Name	Lord Abbett High Yield Core
Account Structure	Commingled Fund
Investment Style	Active
Inception Date	7/01/19
Account Type	Fixed
Benchmark	Bloomberg US High Yield TR
Universe	eV US High Yield Fixed Inc Net

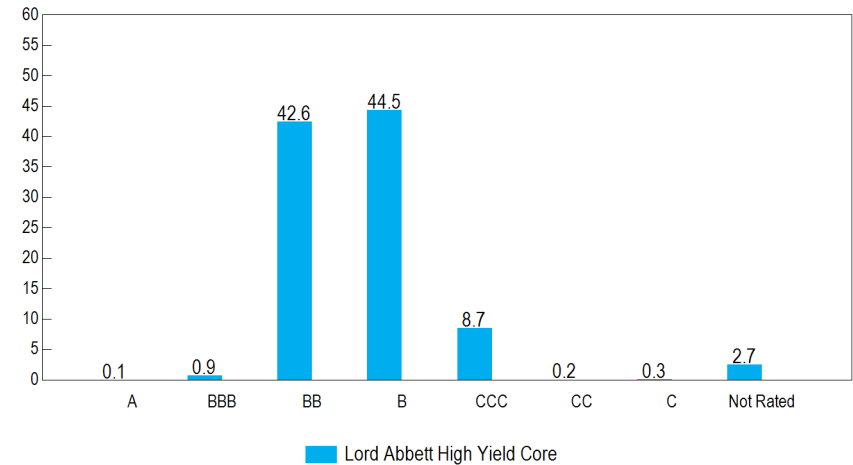
Portfolio Performance Summary

	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	Inception (%)	Inception Date
Lord Abbett High Yield Core	1.5	4.6	7.5	3.2	--	2.1	Jul-19
Bloomberg US High Yield TR	1.7	5.4	9.1	3.1	3.4	2.4	Jul-19
eV US High Yield Fixed Inc Net Median	1.4	4.8	8.2	3.0	3.1	2.3	Jul-19
eV US High Yield Fixed Inc Net Rank	47	58	67	43	--	62	Jul-19

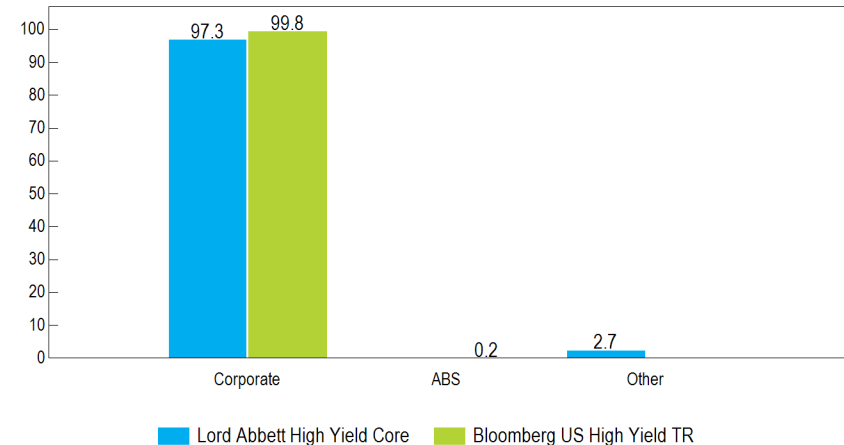
Lord Abbett High Yield Core Characteristics vs. Bloomberg US High Yield TR

	Portfolio Q2-23	Index Q2-23	Portfolio Q1-23
Fixed Income Characteristics			
Yield to Maturity	8.2	8.5	7.9
Average Duration	4.0	4.1	4.6
Average Quality	B	B	B
Weighted Average Maturity	5.4	5.1	5.8

Credit Quality Allocation



Sector Allocation



Account Information

Account Name	SSgA TIPS-NL
Account Structure	Commingled Fund
Investment Style	Passive
Inception Date	7/01/07
Account Type	Fixed
Benchmark	Bloomberg US TIPS TR
Universe	eV US TIPS / Inflation Fixed Inc Net

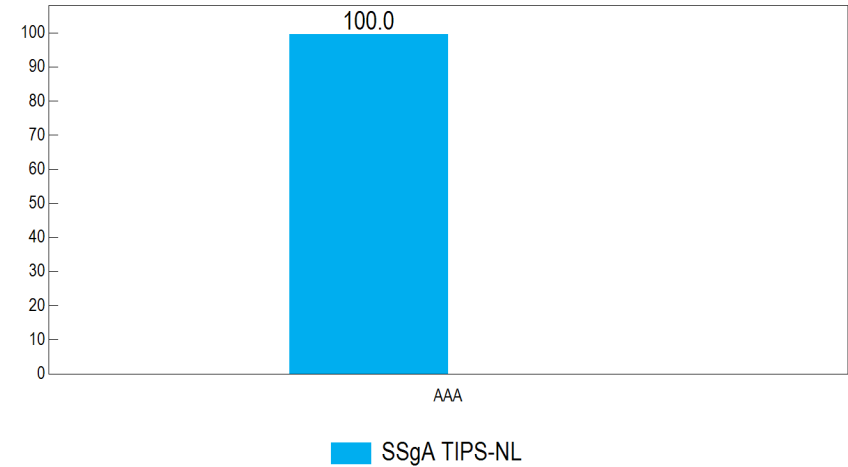
Portfolio Performance Summary

	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	Inception (%)	Inception Date
SSgA TIPS-NL	-1.4	2.0	-1.4	-0.2	2.4	3.5	Jul-07
Bloomberg US TIPS TR	-1.4	1.9	-1.4	-0.1	2.5	3.6	Jul-07
eV US TIPS / Inflation Fixed Inc Net Median	-1.4	1.8	-1.2	0.0	2.5	3.6	Jul-07
eV US TIPS / Inflation Fixed Inc Net Rank	50	16	68	70	63	56	Jul-07

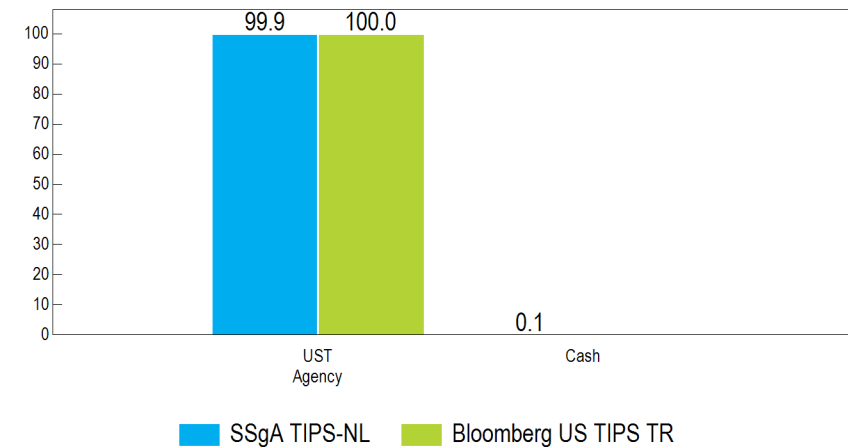
SSgA TIPS-NL Characteristics vs. Bloomberg US TIPS TR

	Portfolio Q2-23	Index Q2-23	Portfolio Q1-23
Fixed Income Characteristics			
Yield to Maturity	4.5	4.3	4.0
Average Duration	4.5	6.7	5.0
Average Quality	AAA	AA	AAA
Weighted Average Maturity	7.2	7.2	7.4

Credit Quality Allocation



Sector Allocation



Aberdeen Emerging Markets Bond Fund | As of June 30, 2023

Account Information

Account Name	Aberdeen Emerging Markets Bond Fund
Account Structure	Commingled Fund
Investment Style	Active
Inception Date	12/01/16
Account Type	Fixed
Benchmark	JP Morgan EMBI Global Diversified
Universe	

Portfolio Performance Summary

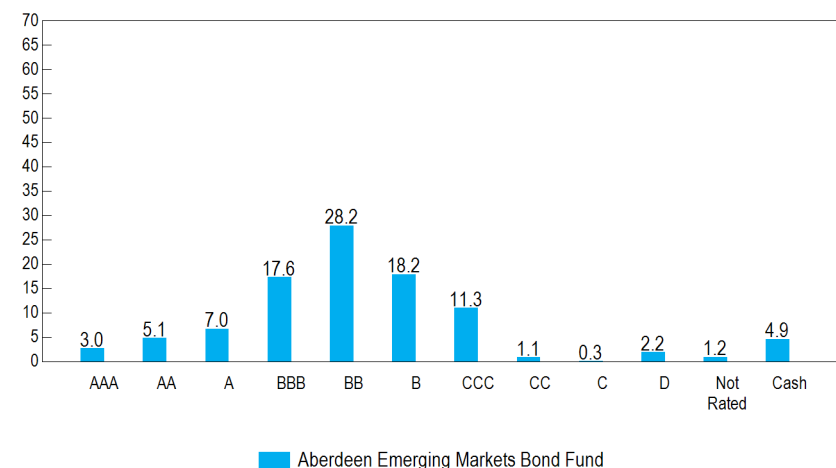
	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	Inception (%)	Inception Date
Aberdeen Emerging Markets Bond Fund	4.3	4.9	9.5	-2.4	0.2	0.9	Dec-16
JP Morgan EMBI Global Diversified	2.2	4.1	7.4	-3.1	0.6	1.3	Dec-16
JP Morgan GBI EM Global Diversified TR USD	2.5	7.8	11.4	-1.4	0.3	1.7	Dec-16

Aberdeen Emerging Markets Bond Fund Fixed Income Characteristics

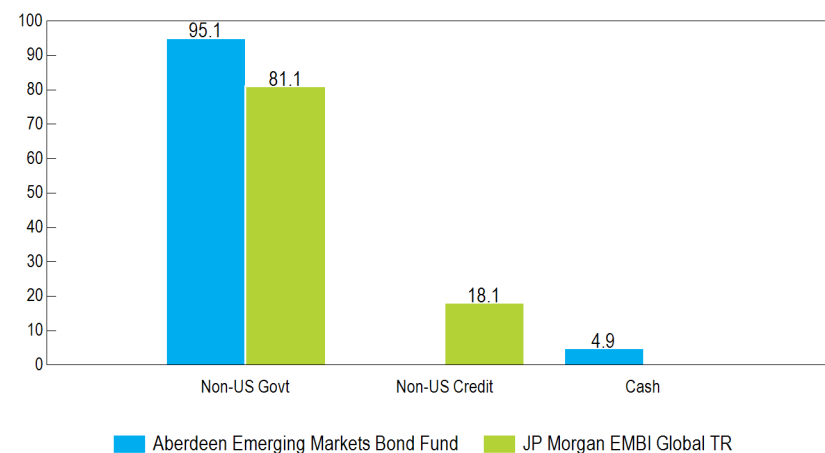
vs. JP Morgan EMBI Global TR

	Portfolio Q2-23	Index Q2-23	Portfolio Q1-23
Fixed Income Characteristics			
Yield to Maturity	10.2	7.4	10.7
Average Duration	6.7	7.0	6.8
Average Quality	BB	BBB	BB
Weighted Average Maturity	12.3	11.9	12.4

Credit Quality Allocation



Global Sector Allocation



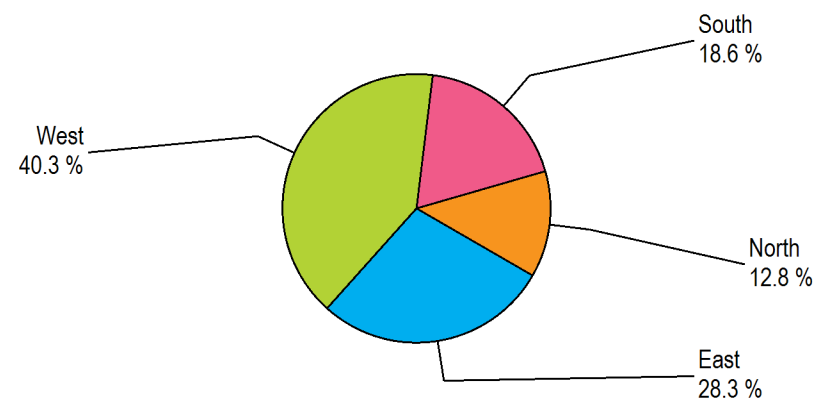
Account Information

Account Name	Intercontinental U.S. REIF
Account Structure	Other
Investment Style	Active
Inception Date	10/01/14
Account Type	Real Estate
Benchmark	NCREIF ODCE (net)
Universe	

Portfolio Performance Summary

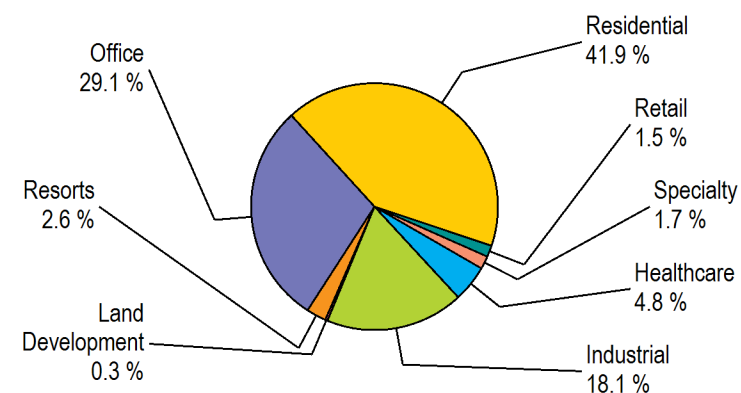
	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	Inception (%)	Inception Date
Intercontinental U.S. REIF	-6.3	-9.8	-14.3	5.5	5.7	7.8	Oct-14
NCREIF ODCE (net)	-2.8	-6.1	-10.7	7.1	5.6	7.2	Oct-14

Geographic Diversification



North represents Midwest.

Property Type Allocation



Note: As of June 30, 2023, the number of investments is 155.

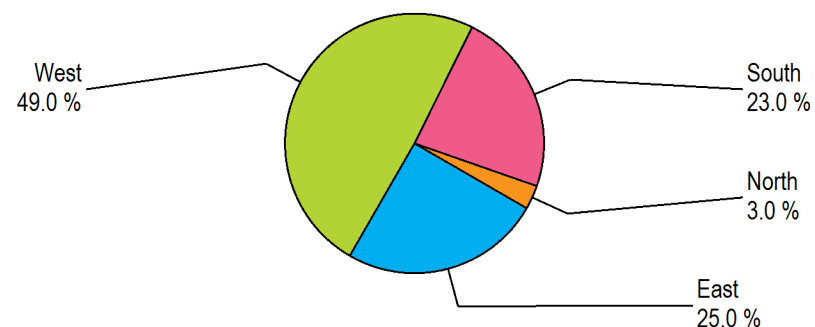
Account Information

Account Name	AEW Core Property Trust
Account Structure	Commingled Fund
Investment Style	Active
Inception Date	10/01/14
Account Type	Real Estate
Benchmark	NCREIF ODCE (net)
Universe	

Portfolio Performance Summary

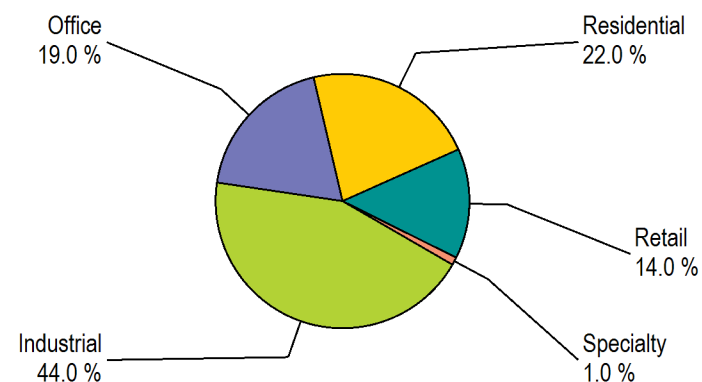
	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	Inception (%)	Inception Date
AEW Core Property Trust	-0.3	-4.0	-7.2	8.2	6.3	7.4	Oct-14
NCREIF ODCE (net)	-2.8	-6.1	-10.7	7.1	5.6	7.2	Oct-14

Geographic Diversification



North represents Midwest.

Property Type Allocation



Note: As of March 31, 2023, the number of investments is 78.

Account Information

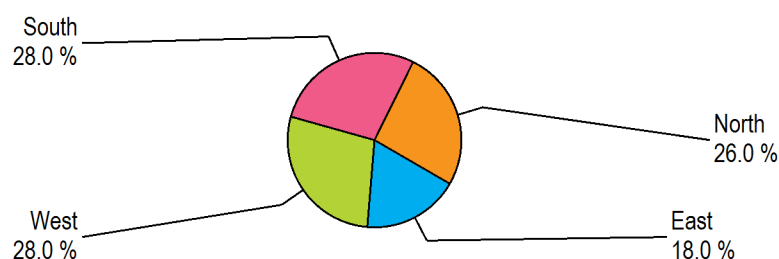
Account Name	AEW Partners IX, L.P.
Account Structure	Other
Investment Style	Active
Inception Date	3/29/21
Account Type	Real Estate
Benchmark	NCREIF ODCE (net)

Non-Marketable Securities Overview

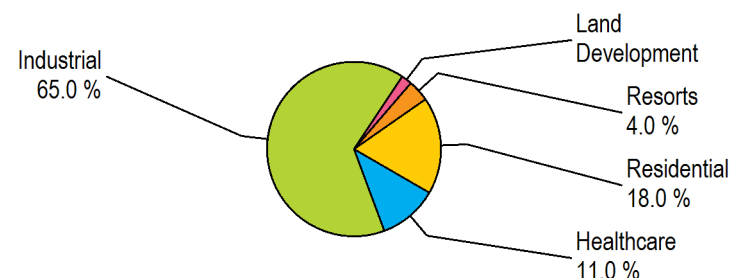
As of June 30, 2023

Account Type	Account	Vintage Year	Commitment	Cumulative Takedown	Cumulative Distributions	Value (RV)	Total Value (RV + Dist)	Unfunded Commitment
Real Estate	AEW Partners IX, L.P.	2019	\$5,000,000	\$3,602,635	\$57,366	\$3,771,144	\$3,828,510	\$1,397,365
	Total Account		\$5,000,000	\$3,602,635	\$57,366	\$3,771,144	\$3,828,510	\$1,397,365

Geographic Diversification



Property Type Allocation



Investment Strategy:

AEW IX will pursue an opportunistic real estate strategy comparable with predecessor funds, adapting as economies, property markets and capital markets transition through cycles. The Fund will focus on three themes: disruption and capital market dislocations, densification and urbanization, and demographics. Value will be created through repositioning, refinancing, development, redevelopment, market recovery, and emerging locations.

Note: As of March 31, 2023, the number of investments is 25.

Account Information	
Account Name	TA Associates Realty Fund X
Account Structure	Other
Investment Style	Active
Inception Date	4/01/13
Account Type	Real Estate
Benchmark	NCREIF ODCE (net)
Universe	

Non-Marketable Securities Overview								
As of June 30, 2023								
Account Type	Account	Vintage Year	Commitment	Cumulative Takedown	Cumulative Distributions	Value (RV)	Total Value (RV + Dist)	Unfunded Commitment
Real Estate	TA Associates Realty Fund X	2013	\$3,000,000	\$2,997,546	\$4,811,372	\$832	\$4,812,204	\$2,454
	Total Account		\$3,000,000	\$2,997,546	\$4,811,372	\$832	\$4,812,204	\$2,454

Investment Strategy:

TA Associates Realty Fund X uses a value-added strategy to create a diversified portfolio of direct real estate investments. The strategy is anticipated to target under-leased office, industrial, multifamily, and retail assets that are expected to be well-located, functional buildings with strong net operating income (NOI) growth potential. Geographically, the fund will target over 35 U.S. markets with broad regional diversification targets of 25% to 40% in the west, 20% to 35% in the east, 20% to 30% in the south, and 10% to 20% in the Midwest. The fund will target 35% leverage, with a maximum of 50%. Most value-added improvements include redevelopment, repositioning, retenancing, or recapitalization.

Note: As of December 31, 2022 the number of investments is 0.

Account Information

Account Name	Ascent Venture Partners - Fund V
Account Structure	Other
Investment Style	Active
Inception Date	9/22/08
Account Type	Private Equity
Benchmark	Preqin Private Equity 1Q Lagged
Universe	

Non-Marketable Securities Overview by Account Type

Account Type	Account	Vintage Year	Commitment	Cumulative Takedown	Cumulative Distributions	Value (RV)	Total Value (RV + Dist)	Unfunded Commitment
Private Equity	Ascent Venture Partners - Fund V	2011	\$1,000,000	\$970,000	\$911,356	\$634,735	\$1,546,091	\$30,000
	Total Account		\$1,000,000	\$970,000	\$911,356	\$634,735	\$1,546,091	\$30,000

Investment Strategy:

Ascent Venture Partners V is an early stage venture capital fund focused on making investments within the technology products and services industry. Specific areas of interest include next generation software (open source and Software-as-a-Service), data management and analysis, automated computing, security and compliance, financial services, and applications associated with the convergence of remote devices. The GP is located in Boston and will invest in the eastern United States and Canada. The Fund will target companies that have pre-money valuations of \$3 to \$15 million and have the potential for a \$100 million exit value.

Note: As of March 31, 2023, the Net IRR is 6.38%.

Account Information

Account Name	Ascent Venture Partners - Fund VI
Account Structure	Other
Investment Style	Active
Inception Date	6/30/15
Account Type	Private Equity
Benchmark	Preqin Private Equity 1Q Lagged
Universe	

Non-Marketable Securities Overview by Account Type

Account Type	Account	Vintage Year	Commitment	Cumulative Takedown	Cumulative Distributions	Value (RV)	Total Value (RV + Dist)	Unfunded Commitment
Private Equity	Ascent Venture Partners - Fund VI	2015	\$1,500,000	\$1,455,000	\$0	\$1,624,986	\$1,624,986	\$45,000
	Total Account		\$1,500,000	\$1,455,000	\$0	\$1,624,986	\$1,624,986	\$45,000

Investment Strategy:

Ascent Venture Partners VI is a limited partnership that was formed on November 25, 2013 under the Delaware Uniform Limited Partnership Act and commenced operations on November 16, 2015. The purpose of the Partnership is to provide early stage financing to emerging technology companies.

Note: As of March 31, 2023, the Net IRR is 2.17%.

Account Information

Account Name	Goldman Sachs PEP 2005
Account Structure	Other
Investment Style	Active
Inception Date	8/01/06
Account Type	Private Equity
Benchmark	Preqin Private Equity 1Q Lagged
Universe	

Non-Marketable Securities Overview by Account Type

Account Type	Account	Vintage Year	Commitment	Cumulative Takedown	Cumulative Distributions	Value (RV)	Total Value (RV + Dist)	Unfunded Commitment
Private Equity	Goldman Sachs PEP 2005	2006	\$3,000,000	\$2,933,548	\$3,665,994	\$133,899	\$3,799,893	\$66,452
	Total Account		\$3,000,000	\$2,933,548	\$3,665,994	\$133,899	\$3,799,893	\$66,452

Investment Strategy:

Goldman Sachs Private Equity Partners 2005 is a fund of funds formed to create a diversified portfolio of 18 to 25 partnerships. The Fund will invest opportunistically in order to commit to the “very best managers.” The Fund expects to commit approximately \$40 million to each partnership. Previous funds have invested approximately 30% outside the U.S.

Note: As of December 31, 2022, the Net IRR is 4.9%.

Account Information

Account Name	HarbourVest Partners VIII
Account Structure	Other
Investment Style	Active
Inception Date	12/20/07
Account Type	Private Equity
Benchmark	Preqin Private Equity 1Q Lagged
Universe	

Non-Marketable Securities Overview by Account Type

Account Type	Account	Vintage Year	Commitment	Cumulative Takedown	Cumulative Distributions	Value (RV)	Total Value (RV + Dist)	Unfunded Commitment
Private Equity	HarbourVest Partners VIII	2006	\$2,500,000	\$2,425,000	\$4,224,821	\$198,012	\$4,422,833	\$75,000
	Total Account		\$2,500,000	\$2,425,000	\$4,224,821	\$198,012	\$4,422,833	\$75,000

Investment Strategy:

HarbourVest Partners, known as Hancock Venture Partners until 1997, was founded in 1982 to invest in private equity partnerships. The HarbourVest Partners VIII Investment Program consists of three separate fund of funds, each dedicated to distinct private equity strategies: buyout, venture capital and mezzanine debt partnerships. Each vehicle will invest primarily in newly raised funds, but will also invest a portion of assets in secondary interest.

Note: As of March 31, 2023, the Net IRR is 10.7%.

Account Information

Account Name	HarbourVest Partners IX
Account Structure	Other
Investment Style	Active
Inception Date	10/22/13
Account Type	Private Equity
Benchmark	Preqin Private Equity 1Q Lagged
Universe	

Non-Marketable Securities Overview by Account Type

Account Type	Account	Vintage Year	Commitment	Cumulative Takedown	Cumulative Distributions	Value (RV)	Total Value (RV + Dist)	Unfunded Commitment
Private Equity	HarbourVest Partners IX	2010	\$5,000,000	\$4,262,500	\$6,321,542	\$3,103,314	\$9,424,856	\$737,500
	Total Account		\$5,000,000	\$4,262,500	\$6,321,542	\$3,103,314	\$9,424,856	\$737,500

Investment Strategy:

HarbourVest Partners, known as Hancock Venture Partners until 1997, was founded in 1982 to invest in private equity partnerships. The HarbourVest Partners IX Fund consists of three separate fund of funds, each dedicated to distinct private equity strategies: buyout, venture capital, and mezzanine debt partnerships. Each vehicle will invest primarily in newly-raised funds, but will also invest a portion of assets in secondary interests.

Note: As of March 31, 2023, the Net IRR is 18.4%.

Account Information

Account Name	HarbourVest X Buyout Fund
Account Structure	Other
Investment Style	Active
Inception Date	4/06/16
Account Type	Private Equity
Benchmark	Preqin Private Equity 1Q Lagged
Universe	

Non-Marketable Securities Overview by Account Type

Account Type	Account	Vintage Year	Commitment	Cumulative Takedown	Cumulative Distributions	Value (RV)	Total Value (RV + Dist)	Unfunded Commitment
Private Equity	HarbourVest X Buyout Fund	2016	\$6,500,000	\$5,606,250	\$4,229,188	\$5,504,791	\$9,733,979	\$893,750
	Total Account		\$6,500,000	\$5,606,250	\$4,229,188	\$5,504,791	\$9,733,979	\$893,750

Investment Strategy:

HarbourVest Partners, known as Hancock Venture Partners until 1997, was founded in 1982 to invest in private equity partnerships. The HarbourVest Partners X Fund consists of three separate fund of funds, each dedicated to distinct private equity strategies: buyout, venture capital, and mezzanine debt partnerships. Each vehicle will invest primarily in newly-raised funds, but will also invest a portion of assets in secondary interests.

Note: As of March 31, 2023, the Net IRR is 23.7%.

Account Information

Account Name	HarbourVest Partners XI
Account Structure	Other
Investment Style	Active
Inception Date	7/31/19
Account Type	Private Equity
Benchmark	Preqin Private Equity 1Q Lagged
Universe	

Non-Marketable Securities Overview by Account Type

Account Type	Account	Vintage Year	Commitment	Cumulative Takedown	Cumulative Distributions	Value (RV)	Total Value (RV + Dist)	Unfunded Commitment
Private Equity	HarbourVest Partners XI	2019	\$5,000,000	\$3,812,500	\$1,164,111	\$4,713,516	\$5,877,627	\$1,187,500
	Total Account		\$5,000,000	\$3,812,500	\$1,164,111	\$4,713,516	\$5,877,627	\$1,187,500

Investment Strategy:

HarbourVest Partners, known as Hancock Venture Partners until 1997, was founded in 1982 to invest in private equity partnerships. The HarbourVest Partners XI Fund consists of three separate fund of funds, each dedicated to distinct private equity strategies: buyout, venture capital, and mezzanine debt partnerships. Each vehicle will invest primarily in newly-raised funds, but will also invest a portion of assets in secondary interests.

Note: As of March 31, 2023, the Net IRR is 31.5%.

Account Information

Account Name	HarbourVest Fund XII
Account Structure	Other
Investment Style	Active
Inception Date	9/07/22
Account Type	Private Equity
Benchmark	Preqin Private Equity 1Q Lagged
Universe	

Non-Marketable Securities Overview by Account Type

Account Type	Account	Vintage Year	Commitment	Cumulative Takedown	Cumulative Distributions	Value (RV)	Total Value (RV + Dist)	Unfunded Commitment
Private Equity	HarbourVest Fund XII	2022	\$4,000,000	\$785,000	-	\$835,278	\$835,278	\$3,215,000
	Total Account		\$4,000,000	\$785,000	-	\$835,278	\$835,278	\$3,215,000

Investment Strategy:

HarbourVest Partners, known as Hancock Venture Partners until 1997, was founded in 1982 to invest in private equity partnerships. The HarbourVest Partners XII Fund consists of three separate fund of funds, each dedicated to the following private equity strategies: buyout, micro-buyout, and venture partnerships. Each vehicle will consist mainly of primary partnership investments, predominately in North America, but will also invest a portion of assets in secondary interests with no geographic or strategic restriction.

Account Information

Account Name	Constitution Capital Partners Ironsides III
Account Structure	Other
Investment Style	Active
Inception Date	1/29/14
Account Type	Private Equity
Benchmark	Preqin Private Equity 1Q Lagged
Universe	

Non-Marketable Securities Overview by Account Type

Account Type	Account	Vintage Year	Commitment	Cumulative Takedown	Cumulative Distributions	Value (RV)	Total Value (RV + Dist)	Unfunded Commitment
Private Equity	Constitution Capital Partners Ironsides III	2014	\$5,000,000	\$3,597,656	\$7,722,977	\$5,687,929	\$13,410,907	\$1,402,344
	Total Account		\$5,000,000	\$3,597,656	\$7,722,977	\$5,687,929	\$13,410,907	\$1,402,344

Investment Strategy:

Constitution Capital seeks investments in underlying private equity funds ranging in size from \$200 million to approximately \$1.0 billion, with a few larger potentially. Constitution has noted their preference to invest the majority of capital to funds of less than \$1 billion. Constitution targets a variety of fund types (domestic middle-market buyout, special situations, growth equity, distressed, and sector-specific) and will allocate amongst them opportunistically. The group will not invest in early-stage venture capital funds or mega buyout funds. The portfolio will have 12 to 15 underlying fund investments of approximately \$10 million to \$20 million each. For co-investments, it is anticipated that a total of 12-15 co-investments will each range from \$5 million to \$25 million. The enterprise values of the underlying companies are expected to range from \$100 million to \$1.5 billion.

Note: As of March 31, 2023, the Net IRR is 26.7%.

Account Information

Account Name	Constitution Capital Partners Ironsides IV
Account Structure	Other
Investment Style	Active
Inception Date	6/01/16
Account Type	Private Equity
Benchmark	Preqin Private Equity 1Q Lagged
Universe	

Non-Marketable Securities Overview by Account Type

Account Type	Account	Vintage Year	Commitment	Cumulative Takedown	Cumulative Distributions	Value (RV)	Total Value (RV + Dist)	Unfunded Commitment
Private Equity	Constitution Capital Partners Ironsides IV	2016	\$3,250,000	\$1,925,357	\$3,334,622	\$3,264,601	\$6,599,222	\$1,324,643
	Total Account		\$3,250,000	\$1,925,357	\$3,334,622	\$3,264,601	\$6,599,222	\$1,324,643

Investment Strategy:

Constitution Capital seeks investments in underlying private equity funds ranging in size from \$200 million to approximately \$1.0 billion, with a few larger potentially. Constitution has noted their preference to invest the majority of capital to funds of less than \$1 billion. Constitution targets a variety of fund types (domestic middle-market buyout, special situations, growth equity, distressed, and sector-specific) and will allocate amongst them opportunistically. The group will not invest in early-stage venture capital funds or mega buyout funds. The portfolio will have 12 to 15 underlying fund investments of approximately \$10 million to \$20 million each. For co-investments, it is anticipated that a total of 12-15 co-investments will each range from \$5 million to \$25 million. The enterprise values of the underlying companies are expected to range from \$100 million to \$1.5 billion.

Note: As of March 31, 2023, the Net IRR is 30.5%.

Account Information

Account Name	Constitution Capital Partners Ironsides V
Account Structure	Other
Investment Style	Active
Inception Date	3/09/20
Account Type	Private Equity
Benchmark	Preqin Private Equity 1Q Lagged
Universe	

Non-Marketable Securities Overview by Account Type

Account Type	Account	Vintage Year	Commitment	Cumulative Takedown	Cumulative Distributions	Value (RV)	Total Value (RV + Dist)	Unfunded Commitment
Private Equity	Constitution Capital Partners Ironsides V	2020	\$2,500,000	\$1,815,301	\$203,587	\$2,603,321	\$2,806,909	\$684,699
	Total Account		\$2,500,000	\$1,815,301	\$203,587	\$2,603,321	\$2,806,909	\$684,699

Investment Strategy:

Constitution Capital seeks investments in underlying private equity funds ranging in size from \$200 million to approximately \$1.0 billion, with a few larger potentially. Constitution has noted their preference to invest the majority of capital to funds of less than \$1 billion. Constitution targets a variety of fund types (domestic middle-market buyout, special situations, growth equity, distressed, and sector-specific) and will allocate amongst them opportunistically. The group will not invest in early-stage venture capital funds or mega buyout funds. The portfolio will have 12 to 15 underlying fund investments of approximately \$10 million to \$20 million each. For co-investments, it is anticipated that a total of 12-15 co-investments will each range from \$5 million to \$25 million. The enterprise values of the underlying companies are expected to range from \$100 million to \$1.5 billion.

Note: As of March 31, 2023, the Net IRR is 27.9%.

Account Information

Account Name	Constitution Capital Direct IV
Account Structure	Other
Investment Style	Active
Inception Date	6/30/16
Account Type	Private Equity
Benchmark	Preqin Private Equity 1Q Lagged
Universe	

Non-Marketable Securities Overview by Account Type

Account Type	Account	Vintage Year	Commitment	Cumulative Takedown	Cumulative Distributions	Value (RV)	Total Value (RV + Dist)	Unfunded Commitment
Private Equity	Constitution Capital Direct IV	2016	\$3,250,000	\$2,941,583	\$4,788,485	\$1,835,221	\$6,623,706	\$308,417
	Total Account		\$3,250,000	\$2,941,583	\$4,788,485	\$1,835,221	\$6,623,706	\$308,417

Investment Strategy:

Constitution Capital seeks investments in underlying private equity funds ranging in size from \$200 million to approximately \$1.0 billion, with a few larger potentially. Constitution has noted their preference to invest the majority of capital to funds of less than \$1 billion. Constitution targets a variety of fund types (domestic middle-market buyout, special situations, growth equity, distressed, and sector-specific) and will allocate amongst them opportunistically. The group will not invest in early-stage venture capital funds or mega buyout funds. The portfolio will have 12 to 15 underlying fund investments of approximately \$10 million to \$20 million each. For co-investments, it is anticipated that a total of 12-15 co-investments will each range from \$5 million to \$25 million. The enterprise values of the underlying companies are expected to range from \$100 million to \$1.5 billion.

Note: As of March 31, 2022, the Net IRR is 16.4%.

Account Information

Account Name	Constitution Capital Direct V
Account Structure	Other
Investment Style	Active
Inception Date	3/27/19
Account Type	Private Equity
Benchmark	Preqin Private Equity 1Q Lagged
Universe	

Non-Marketable Securities Overview

As of March 31, 2023

Account Type	Account	Vintage Year	Commitment	Cumulative Takedown	Cumulative Distributions	Value (RV)	Total Value (RV + Dist)	Unfunded Commitment
Private Equity	Constitution Capital Direct V	2019	\$2,500,000	\$2,056,588	\$656,677	\$3,892,127	\$4,548,804	\$443,411
	Total Account		\$2,500,000	\$2,056,588	\$656,677	\$3,892,127	\$4,548,804	\$443,411

Investment Strategy:

Constitution Capital seeks investments in underlying private equity funds ranging in size from \$200 million to approximately \$1.0 billion, with a few larger potentially. Constitution has noted their preference to invest the majority of capital to funds of less than \$1 billion. Constitution targets a variety of fund types (domestic middle-market buyout, special situations, growth equity, distressed, and sector-specific) and will allocate amongst them opportunistically. The group will not invest in early-stage venture capital funds or mega buyout funds. The portfolio will have 12 to 15 underlying fund investments of approximately \$10 million to \$20 million each. For co-investments, it is anticipated that a total of 12-15 co-investments will each range from \$5 million to \$25 million. The enterprise values of the underlying companies are expected to range from \$100 million to \$1.5 billion.

Note: As of March 31, 2022, the Net IRR is 18.8%.

Account Information

Account Name	Constitution Capital Co-Investment Fund VI, L.P.
Account Structure	Other
Investment Style	Active
Inception Date	10/29/21
Account Type	Private Equity
Benchmark	Preqin Private Equity 1Q Lagged
Universe	

Non-Marketable Securities Overview

As of March 31, 2023

Account Type	Account	Vintage Year	Commitment	Cumulative Takedown	Cumulative Distributions	Value (RV)	Total Value (RV + Dist)	Unfunded Commitment
Private Equity	Constitution Capital Co-Investment Fund VI, L.P.	2021	\$4,000,000	\$3,518,442	\$58,076	\$4,124,510	\$4,182,586	\$481,557
	Total Account		\$4,000,000	\$3,518,442	\$58,076	\$4,124,510	\$4,182,586	\$481,557

Investment Strategy:

Constitution Capital seeks investments in underlying private equity funds ranging in size from \$200 million to approximately \$1.0 billion, with a few larger potentially. Constitution has noted their preference to invest the majority of capital to funds of less than \$1 billion. Constitution targets a variety of fund types (domestic middle-market buyout, special situations, growth equity, distressed, and sector-specific) and will allocate amongst them opportunistically. The group will not invest in early-stage venture capital funds or mega buyout funds. The portfolio will have 12 to 15 underlying fund investments of approximately \$10 million to \$20 million each. For co-investments, it is anticipated that a total of 12-15 co-investments will each range from \$5 million to \$25 million. The enterprise values of the underlying companies are expected to range from \$100 million to \$1.5 billion.

Appendices

Corporate Update



7
Offices



245+
Employees



240+
Clients



\$1.7T
Assets Under Advisement



\$200B
Assets in Alternative Investments



99%
Client Retention Rate



5:1
Client | Consultant Ratio

Meketa
Investment Group
is proud to work
for over 15 million
American families
everyday!

UPCOMING EVENTS



Q3 Investment Perspectives Webcast
October 2023



Emerging and Diverse Manager Research Day
October 2023

Client and employee counts as of June 30, 2023; assets as of March 31, 2023.
Client retention rate is one minus the number of clients lost divided by the number of clients at prior year-end.

MEKETA IN THE NEWS

Pensions&Investments

Evolution of 60/40 allocation continues amid high inflation

Portfolio managers divided over future of model after historically bad '22 returns

By Palash Ghosh | May 8, 2023

Stephen McCourt and Rafi Zaman, San Diego-based executives at consultant Meketa Investment Group, said in a joint email that if the outlook is for elevated inflation levels and higher volatility, then an allocation of 20% or more to alternatives may be appropriate. "Many of the largest and most successful pension funds today are already well beyond the 20% level," they added.

Mr. McCourt is managing principal and co-CEO at Meketa, while Mr. Zaman is CIO of Meketa Fiduciary Management, a subsidiary of Meketa that provides OCIO services. Meketa had about \$1.6 trillion in client assets under advisement as of Sept. 30.

Messrs. McCourt and Zaman noted that some institutional investors began moving away from a 60/40 portfolio many years ago, while others are just now starting to recognize that a 60/40 allocation may not provide adequate diversification.

"As a result, they're seeking a broader set of assets that are reasonably uncorrelated," they said. "In addition, investors are focusing more and more on their own specific liabilities, not just volatility, as measures of risk. This change has been somewhat gradual but consistent over time. We expect these trends to continue."

Messrs. McCourt and Zaman contend that institutional investors need to allocate assets based on striking the right balance between their return expectations and risks they can safely bear. "These risks include volatility, liquidity, drawdown risk, etc.," they said. "Second, risk management shouldn't be a mechanical process driven by some model output — rather, it is a deliberate and iterative process where various forward-looking scenarios are considered, and their impact measured. Allocations to alternatives should be determined within this framework, based on their impact in mitigating overall risks while providing adequate returns."

FUNDfire

Natural Resource Fund Returns Ride High, But Will Investors Bite?

Natural resource funds benefitting from high inflation have outperformed other asset classes.

By Shayla Colon | May 17, 2023

Another critical feature of natural resources funds is their exposure to underlying commodities, which can be "highly volatile and subject to cyclical environments," said **Gerald Chew**, a private markets consultant at **Meketa**. That was a main reason many strategies underperformed much of the past decade as inflation was low and commodity prices were trending downward, he explained.

CELEBRATING THIS QUARTER | Meketa's 2022 Corporate Responsibility Report

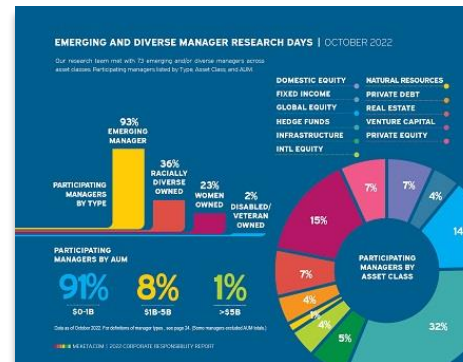


Meketa is pleased to present the 2022 Corporate Responsibility Report. The purpose of this report is to provide an overview of the firm and our commitment to diversity, the work experience of our employees, Meketa's role in the community, and how we can assist our clients as they approach environmental, social, and governance ("ESG") issues at their institutions and within their portfolios.

We believe that our own corporate responsibility is critical in reflecting the firm's belief in a sustainable future that promotes social and environmental well-being for our clients, employees, communities, and business operations.

View our full report here:

<https://meketa.com/news/meketas-2022-corporate-responsibility-report/>



THOUGHT LEADERSHIP



Watch our recent Emerging & Diverse Manager Day Roundtable Discussion on RMS

We hosted a one-hour roundtable discussion with a panel of managers focused on fundraising in non-traditional markets and implementing investment solutions within Risk Mitigating Strategies (“RMS”). RMS is a strategic investment framework designed to provide investors diversification relative to the single largest risk factor in most portfolios: equity risk. Roundtable topics included initial challenges to fundraising, and educating Trustees on a non-traditional asset class as well as reflections on launching a firm. Roundtable participants included Vineer Bhansali of LongTail Alpha, DeWayne Louis of Versor Investments, and Rosie Reynolds of Aspect Capital.

Watch the webinar here:

<https://meketa.com/leadership/april-2023-emerging-and-diverse-manager-roundtable-discussion/>



Read our May 2023 Meketa Connectives on “US Core Inflation Higher for Longer?”

In 2023 Meketa launched a new series in our Thought Leadership library called “Meketa Connectives.” This series started in February with our first issue [“Understanding China Series Update: US China Diplomatic Relations Fray.”](#) Since then we have released four more issues aimed at connecting various items in our Thought Leadership library including white papers, global macroeconomic newsletters, and webinars. In our May issue we cover how persistent inflation can weigh on investment returns for a variety of reasons, but a diversified basket of inflation-hedging assets and a functional approach to asset allocation could provide ballasts and clarity for investors when price of goods and interest rates are elevated.

Read more here:

<https://meketa.com/news/meketa-connectives-us-core-inflation-higher-for-longer/>



Read our recent white paper on General Partner Stakes Investing

Private market investment strategies continue to expand while providing differentiated risk/return profiles. Capital investments into private market management companies, known as “GP stakes”, are an example of this expansion. GP stakes provide a differentiated way to participate in the potentially attractive economics of private market firms (“GPs” or “managers”). The primary focus of a typical GP stakes transaction is to purchase a minority ownership position of a private market manager, commonly around 20%, and participate in a combination of the management fees, pro rata share of the proceeds of GP commitments to funds, and/or performance fees (i.e., carried interest).

Read more here:

<https://meketa.com/leadership/gp-stakes-investing/>

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

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.