

Plymouth County Retirement Association

August 29, 2023

Meeting Materials

Agenda

1. Estimated Retirement Association Performance As of July 31, 2023
2. Performance Update As of June 30, 2023
 - Q2 Performance Update
 - Private Markets 2022 Q1 Performance Update
3. Current Issues
 - Meketa Portal Discussion
 - Portfolio Overlay Search Finalist Overview
 - Private Infrastructure Search Respondent Review
4. Appendices
 - Investment Manager Status Report
 - Economic Market Update As of July 31, 2023
 - Disclaimer, Glossary, and Notes

**Estimated Retirement Association Performance
As of July 31, 2023**

Estimated Aggregate Performance¹

	July ² (%)	YTD (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)
Total Retirement Association	2.0	7.6	6.5	10.4	7.3	7.3

Benchmark Returns

	July (%)	YTD (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)
Russell 3000	3.6	20.3	12.7	13.1	11.5	12.1
MSCI EAFE	3.2	15.3	16.8	9.3	4.6	5.2
MSCI Emerging Markets	6.2	11.4	8.4	1.5	1.7	3.5
Bloomberg Aggregate	-0.1	2.0	-3.4	-4.5	0.8	1.5
Bloomberg TIPS	0.1	2.0	-5.4	-0.8	2.6	2.0
Bloomberg High Yield	1.4	6.8	4.4	2.0	3.4	4.4
JPM EMBI Global Diversified (Hard Currency)	1.9	6.1	6.4	-3.7	0.4	2.9
S&P Global Natural Resources	7.7	4.4	12.8	20.2	7.3	6.2

Estimated Total Assets

Estimated Total Retirement Assets As of July 31, 2023	\$1,343,193,590
Current Month Performance Estimate through August 17	-2.7%

¹ The July performance estimates are calculated using index returns as of July 31, 2023 for each asset class. No performance estimate was included for private equity, real estate, infrastructure, and private natural resources asset classes.

² As of July 31, 2023.

**Performance Update
As of June 30, 2023**

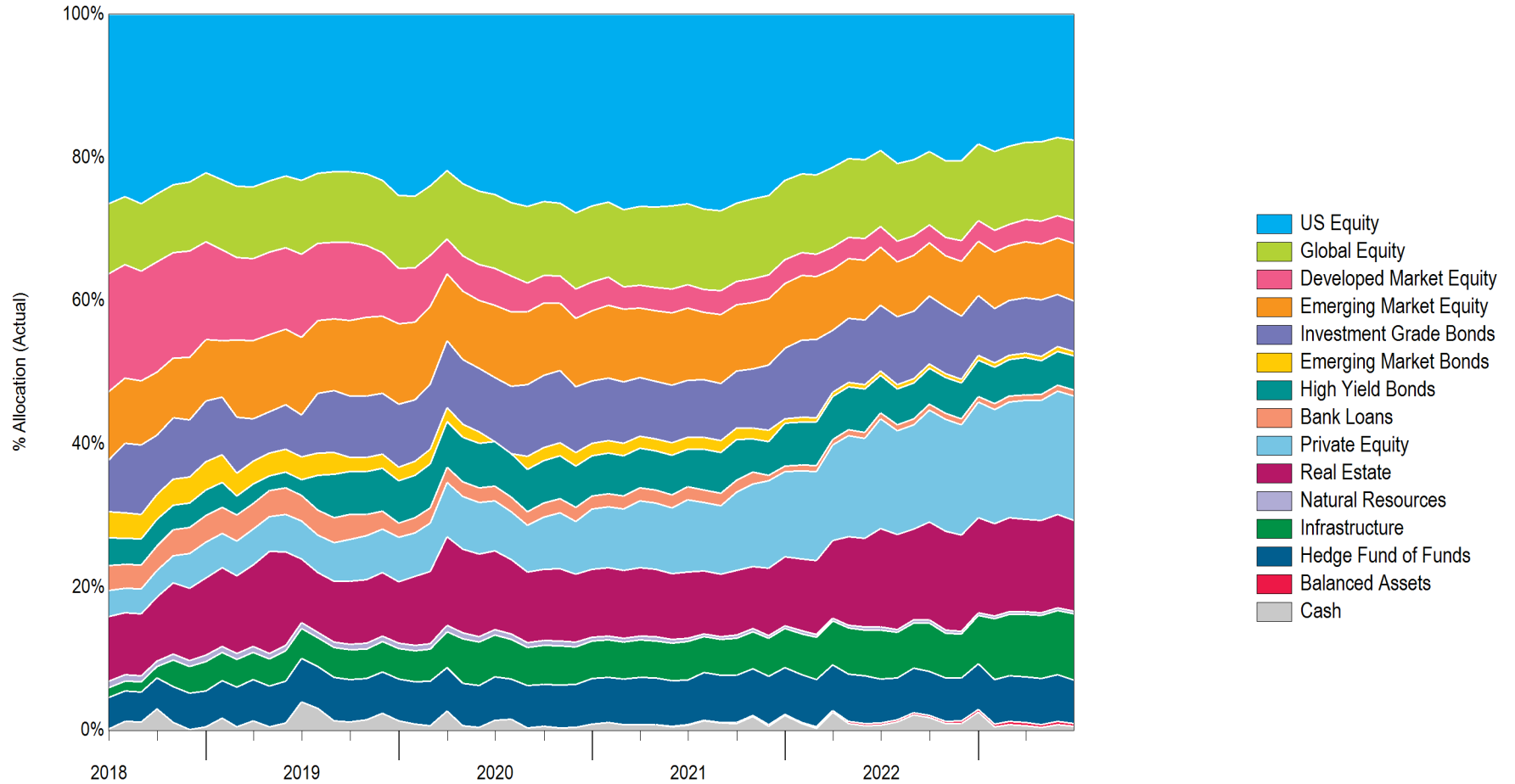
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Q2 Performance Update

	Allocation vs. Target		Policy	Policy Range	Within IPS Range?
	Current Balance	Current Allocation			
Domestic Equity	\$231,487,482	18%	26%	21% - 36%	No
International Developed Market Equity	\$42,356,432	3%	6%	1% - 16%	Yes
International Emerging Market Equity	\$106,095,635	8%	10%	5% - 20%	Yes
Global Equity	\$147,759,752	11%	10%	5% - 20%	Yes
Core Bonds	\$92,503,777	7%	9%	4% - 14%	Yes
Value-Added Fixed Income	\$82,025,894	6%	6%	2% - 12%	Yes
Private Equity	\$233,462,885	18%	13%	4% - 18%	Yes
Real Estate	\$166,999,558	13%	10%	5% - 15%	Yes
Real Assets	\$126,584,999	10%	6%	2% - 10%	Yes
Hedge Fund of Funds	\$80,176,299	6%	4%	2% - 8%	Yes
Cash	\$7,935,703	1%	0%	0% - 3%	Yes
Total	\$1,317,388,416	100%	100%		

	Current Balance	Current Allocation	Policy	Policy Range	Within IPS Range?
Total Equity	\$813,378,899	62%	69%	60% - 80%	Yes
Total Fixed Income	\$174,529,672	13%	15%	5% - 25%	Yes
Total Real Assets and Real Estate	\$321,544,142	24%	16%	7% - 25%	Yes
Cash	\$7,935,703	1%	0%	0% - 3%	Yes

Asset Allocation History
5 Years Ending June 30, 2023



Asset Class Net Performance Summary											
	Market Value (\$)	% of Portfolio	1 Mo (%)	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Total Retirement Association	1,317,388,416	100.0	2.9	2.4	5.5	7.9	11.0	7.2	7.4	7.8	Nov-89
Policy Benchmark (Net) (1)			3.8	3.7	9.0	6.3	8.8	6.4	7.2	--	Nov-89
Actual Allocation (Net)			3.4	3.4	8.1	4.0	7.8	5.8	--	--	Nov-89
Domestic Equity Assets	231,487,482	17.6	7.7	6.3	12.2	17.2	13.0	9.6	--	12.0	Jan-16
Russell 3000			6.8	8.4	16.2	19.0	13.9	11.4	12.3	12.5	Jan-16
International Developed Market Equity Assets	42,356,432	3.2	3.6	4.1	13.8	18.8	5.8	0.5	--	3.4	Jan-16
MSCI EAFE			4.6	3.0	11.7	18.8	8.9	4.4	5.4	5.8	Jan-16
International Emerging Market Equity Assets	106,095,635	8.1	4.8	3.0	7.2	3.9	4.0	1.2	--	5.3	Jan-16
MSCI Emerging Markets			3.8	0.9	4.9	1.7	2.3	0.9	3.0	5.5	Jan-16
Global Equity Assets	147,759,752	11.2	4.3	3.7	8.5	14.1	10.8	7.7	--	6.1	Feb-18
MSCI ACWI			5.8	6.2	13.9	16.5	11.0	8.1	8.8	6.3	Feb-18
Core Fixed Income	92,503,777	7.0	-0.3	-0.6	1.9	0.3	-1.5	1.5	--	1.8	Jan-16
75% Bbg Aggregate/25% Bbg US TIPs 1-10 year			-0.4	-1.0	1.9	-0.9	-2.7	1.3	1.6	1.5	Jan-16
Value Added Fixed Income	82,025,894	6.2	1.5	1.7	5.0	7.3	3.2	2.9	--	4.4	Jan-16
Custom Benchmark - Global Fixed Income (2)			1.6	1.4	4.4	6.5	1.2	2.1	3.2	3.6	Jan-16
Hedge Funds	80,176,299	6.1	1.2	1.5	3.1	4.3	3.2	1.0	3.1	3.4	Feb-10
Custom Benchmark			1.4	1.5	2.3	3.7	5.1	3.4	3.4	3.2	Feb-10
Real Estate (3)	166,999,558	12.7	-0.9	-1.2	-2.6	-4.0	14.7	11.2	--	9.0	Jan-16
Custom Benchmark (4)			-2.7	-2.7	-5.8	-10.0	8.0	6.4	--	6.4	Jan-16
Private Equity (5)	233,462,885	17.7	2.0	2.0	3.9	8.9	28.3	17.7	--	13.3	Jan-16
MSCI ACWI IMI (1Q Lagged)+2%			7.5	7.5	18.6	-5.8	17.9	8.7	10.1	11.3	Jan-16
Real Assets (6)	126,584,999	9.6	2.5	2.5	6.3	10.1	14.5	9.0	--	4.8	Jan-16
CPI + 3%			0.6	1.8	4.3	6.1	8.9	7.0	5.8	6.5	Jan-16
Cash and Cash Equivalent	7,935,703	0.6									

(1) The custom benchmark is comprised of 26% Russell 3000/ 6% MSCI EAFE/ 10% MSCI Emerging Markets/ 13% MSCI ACWI IMI (1Q Lagged) +2%/ 10% MSCI ACWI/ 4% Hedge Funds Custom Benchmark/ 9% (75/25 Barclays Aggregate and Barclays Tips 1-10yr)/ 6% Value Added FI Custom Benchmark/ 10% NCREIF ODCE / 6% CPI+3%

(2) The Custom Benchmark - Global Fixed Income is comprised of 25% BBgBarc/ US High Yield, 25% / Credit Suisse Leveraged Loans / 25% JP Morgan EMBI Global diversified / and 25% BBgBarc Multiverse TR.

(3) The market value and performance is one quarter lagged.

(4) The custom benchmark is comprised of 80% NCREIF ODCE/ 20% Wilshire Reit up until 12/31/2019 and since is comprised of NCREIF ODCE.

(5) The market value and performance is one quarter lagged.

(6) The market value and performance is one quarter lagged.

Trailing Net Performance

	Market Value (\$)	% of Portfolio	% of Sector	1 Mo (%)	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Total Retirement Association	1,317,388,416	100.0	--	2.9	2.4	5.5	7.9	11.0	7.2	7.4	7.8	Nov-89
<i>Policy Benchmark (Net)</i>				3.8	3.7	9.0	6.3	8.8	6.4	7.2	--	Nov-89
<i>Actual Allocation (Net)</i>				3.4	3.4	8.1	4.0	7.8	5.8	--	--	Nov-89
<i>InvMetrics Public DB Net Median</i>				3.6	3.4	7.9	9.1	7.3	6.4	7.1	7.9	Nov-89
<i>InvMetrics Public DB Net Rank</i>				85	87	91	74	2	20	37	59	Nov-89
Domestic Equity Assets	231,487,482	17.6	17.6	7.7	6.3	12.2	17.2	13.0	9.6	--	12.0	Jan-16
<i>Russell 3000</i>				6.8	8.4	16.2	19.0	13.9	11.4	12.3	12.5	Jan-16
Rhumblin Russell 1000 Value	41,332,680	3.1	17.9	6.6	4.1	5.1	11.5	14.3	8.1	9.1	9.2	Apr-13
<i>Russell 1000 Value</i>				6.6	4.1	5.1	11.5	14.3	8.1	9.2	9.2	Apr-13
<i>eV US Large Cap Value Equity Net Median</i>				6.5	3.8	4.5	11.6	14.7	8.5	9.6	9.6	Apr-13
<i>eV US Large Cap Value Equity Net Rank</i>				44	45	45	51	57	62	65	65	Apr-13
Rhumblin Russell 1000 Growth	42,842,837	3.3	18.5	6.8	12.8	29.0	27.1	13.7	15.1	15.7	15.7	Jul-09
<i>Russell 1000 Growth</i>				6.8	12.8	29.0	27.1	13.7	15.1	15.7	15.7	Jul-09
<i>eV US Large Cap Growth Equity Net Median</i>				6.5	11.6	25.7	24.2	10.7	12.5	13.8	14.0	Jul-09
<i>eV US Large Cap Growth Equity Net Rank</i>				33	34	30	28	17	10	11	6	Jul-09
Fisher Midcap Value	53,352,773	4.0	23.0	10.2	4.9	11.2	20.1	18.3	11.8	11.5	9.1	Apr-07
<i>Russell MidCap Value</i>				8.7	3.9	5.2	10.5	15.0	6.8	9.0	7.1	Apr-07
<i>Russell MidCap</i>				8.3	4.8	9.0	14.9	12.5	8.5	10.3	8.2	Apr-07
<i>eV US Mid Cap Value Equity Net Median</i>				8.5	4.4	5.2	12.4	16.7	7.2	9.3	7.5	Apr-07
<i>eV US Mid Cap Value Equity Net Rank</i>				13	36	8	4	30	2	5	9	Apr-07
Newton Small Cap Growth	47,945,761	3.6	20.7	7.4	5.7	10.6	15.8	3.1	8.9	12.4	13.4	Aug-09
<i>Russell 2000 Growth</i>				8.3	7.1	13.6	18.5	6.1	4.2	8.8	11.2	Aug-09
<i>eV US Small Cap Growth Equity Net Median</i>				8.4	5.6	12.8	16.1	7.6	7.6	10.4	13.0	Aug-09
<i>eV US Small Cap Growth Equity Net Rank</i>				79	50	69	54	79	27	18	34	Aug-09

Total Retirement Association | As of June 30, 2023

	Market Value (\$)	% of Portfolio	% of Sector	1 Mo (%)	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Vulcan Partners Small Cap Value	15,887,261	1.2	6.9	5.9	4.9	13.7	7.6	--	--	--	-15.2	Apr-22
<i>Russell 2000 Value</i>				7.9	3.2	2.5	6.0	15.4	3.5	7.3	-8.2	Apr-22
<i>eV US Small Cap Value Equity Net Median</i>				8.6	3.8	5.7	11.2	16.9	5.6	8.2	-2.6	Apr-22
<i>eV US Small Cap Value Equity Net Rank</i>				95	29	7	75	--	--	--	99	Apr-22
Systematic Small Cap Free Cash Flow	30,126,170	2.3	13.0	7.9	4.5	6.8	15.0	--	--	--	3.3	Apr-22
<i>Russell 2000 Value</i>				7.9	3.2	2.5	6.0	15.4	3.5	7.3	-8.2	Apr-22
<i>eV US Small Cap Value Equity Net Median</i>				8.6	3.8	5.7	11.2	16.9	5.6	8.2	-2.6	Apr-22
<i>eV US Small Cap Value Equity Net Rank</i>				68	38	37	29	--	--	--	10	Apr-22
International Developed Market Equity Assets	42,356,432	3.2	3.2	3.6	4.1	13.8	18.8	5.8	0.5	--	3.4	Jan-16
<i>MSCI EAFE</i>				4.6	3.0	11.7	18.8	8.9	4.4	5.4	5.8	Jan-16
Aristotle International Equity	22,274,447	1.7	52.6	4.4	4.9	12.3	17.7	--	--	--	1.2	Mar-21
<i>MSCI EAFE</i>				4.6	3.0	11.7	18.8	8.9	4.4	5.4	2.1	Mar-21
<i>eV EAFE Core Equity Net Median</i>				4.3	2.8	10.7	16.4	8.2	3.8	5.7	0.9	Mar-21
<i>eV EAFE Core Equity Net Rank</i>				47	3	25	35	--	--	--	43	Mar-21
Walter Scott International Equity	20,081,984	1.5	47.4	2.8	3.3	15.6	20.1	--	--	--	1.2	Mar-21
<i>MSCI EAFE</i>				4.6	3.0	11.7	18.8	8.9	4.4	5.4	2.1	Mar-21
<i>eV EAFE Core Equity Net Median</i>				4.3	2.8	10.7	16.4	8.2	3.8	5.7	0.9	Mar-21
<i>eV EAFE Core Equity Net Rank</i>				91	36	4	12	--	--	--	45	Mar-21
International Emerging Market Equity Assets	106,095,635	8.1	8.1	4.8	3.0	7.2	3.9	4.0	1.2	--	5.3	Jan-16
<i>MSCI Emerging Markets</i>				3.8	0.9	4.9	1.7	2.3	0.9	3.0	5.5	Jan-16
ABS Emerging Markets	56,757,769	4.3	53.5	4.6	3.7	7.7	5.6	5.2	--	--	5.8	Dec-18
<i>MSCI Emerging Markets</i>				3.8	0.9	4.9	1.7	2.3	0.9	3.0	2.4	Dec-18
<i>eV Emg Mkts Equity Net Median</i>				4.5	2.2	7.3	6.1	4.2	2.2	3.7	3.9	Dec-18
<i>eV Emg Mkts Equity Net Rank</i>				47	30	46	55	43	--	--	26	Dec-18

Total Retirement Association | As of June 30, 2023

	Market Value (\$)	% of Portfolio	% of Sector	1 Mo (%)	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Driehaus Emerging Markets Growth	49,337,867	3.7	46.5	5.0	2.2	6.5	2.0	2.8	--	--	4.3	Mar-19
<i>MSCI Emerging Markets</i>				3.8	0.9	4.9	1.7	2.3	0.9	3.0	1.1	Mar-19
<i>eV Emg Mkts Equity Net Median</i>				4.5	2.2	7.3	6.1	4.2	2.2	3.7	2.8	Mar-19
<i>eV Emg Mkts Equity Net Rank</i>				37	51	59	78	61	--	--	30	Mar-19
Global Equity Assets	147,759,752	11.2	11.2	4.3	3.7	8.5	14.1	10.8	7.7	--	6.1	Feb-18
<i>MSCI ACWI</i>				5.8	6.2	13.9	16.5	11.0	8.1	8.8	6.3	Feb-18
First Eagle Global Value Fund	26,050,619	2.0	17.6	4.5	3.2	9.2	13.9	10.2	6.5	--	5.0	Feb-18
<i>MSCI ACWI Value NR USD</i>				5.8	3.0	4.3	10.0	11.8	5.2	6.2	3.1	Feb-18
<i>eV Global Value Equity Net Median</i>				5.7	3.6	9.4	15.2	12.9	6.1	7.2	4.3	Feb-18
<i>eV Global Value Equity Net Rank</i>				83	58	52	62	80	48	--	36	Feb-18
Kopernik Global All Cap Fund	35,056,694	2.7	23.7	0.3	-0.7	2.9	9.4	10.9	8.9	--	6.9	Feb-18
<i>MSCI ACWI Value NR USD</i>				5.8	3.0	4.3	10.0	11.8	5.2	6.2	3.1	Feb-18
<i>eV Global All Cap Value Eq Net Median</i>				5.4	3.5	9.4	15.6	13.5	6.0	7.1	4.0	Feb-18
<i>eV Global All Cap Value Eq Net Rank</i>				99	99	98	87	72	12	--	16	Feb-18
Lee Munder Global Multi-Cap Strategy	40,089,227	3.0	27.1	4.9	6.1	14.4	15.1	11.0	6.5	--	5.9	Mar-18
<i>MSCI ACWI</i>				5.8	6.2	13.9	16.5	11.0	8.1	8.8	7.2	Mar-18
<i>eV All Global Equity Net Median</i>				5.5	4.6	11.5	15.8	10.5	7.6	8.7	7.0	Mar-18
<i>eV All Global Equity Net Rank</i>				70	31	31	56	45	67	--	66	Mar-18
Wellington Durable Enterprises, L.P.	46,563,212	3.5	31.5	6.8	5.4	7.5	17.8	11.3	9.0	--	8.6	Mar-18
<i>MSCI ACWI</i>				5.8	6.2	13.9	16.5	11.0	8.1	8.8	7.2	Mar-18
<i>eV All Global Equity Net Median</i>				5.5	4.6	11.5	15.8	10.5	7.6	8.7	7.0	Mar-18
<i>eV All Global Equity Net Rank</i>				17	41	75	35	42	32	--	30	Mar-18

Total Retirement Association | As of June 30, 2023

	Market Value (\$)	% of Portfolio	% of Sector	1 Mo (%)	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Core Fixed Income	92,503,777	7.0	7.0	-0.3	-0.6	1.9	0.3	-1.5	1.5	--	1.8	Jan-16
<i>75% Bbg Aggregate/25% Bbg US TIPS 1-10 year</i>				-0.4	-1.0	1.9	-0.9	-2.7	1.3	1.6	1.5	Jan-16
Lord Abbett Short Duration Credit Trust II	38,543,011	2.9	41.7	-0.3	-0.1	1.7	1.7	0.4	--	--	0.7	Aug-19
<i>Bloomberg US Credit 1-3 Yr TR</i>				-0.2	0.1	1.4	1.4	-0.4	1.6	1.5	0.8	Aug-19
<i>eV US Short Duration - Credit Net Median</i>				-0.1	0.3	2.0	2.1	-0.3	1.6	1.7	0.8	Aug-19
<i>eV US Short Duration - Credit Net Rank</i>				90	81	71	70	25	--	--	71	Aug-19
Lord Abbett Core Fixed Income Trust II	40,793,962	3.1	44.1	-0.3	-0.9	2.3	-1.0	--	--	--	-7.3	Dec-21
<i>Bloomberg US Aggregate TR</i>				-0.4	-0.8	2.1	-0.9	-4.0	0.8	1.5	-7.4	Dec-21
<i>eV US Core Fixed Inc Net Median</i>				-0.3	-0.7	2.3	-0.5	-3.6	1.0	1.7	-7.2	Dec-21
<i>eV US Core Fixed Inc Net Rank</i>				64	80	51	78	--	--	--	57	Dec-21
Rhumblin TIPS Trust	13,166,804	1.0	14.2	-0.4	-1.4	1.8	-1.4	--	--	--	-1.3	Sep-20
<i>Bloomberg US TIPS TR</i>				-0.3	-1.4	1.9	-1.4	-0.1	2.5	2.1	-1.3	Sep-20
<i>eV US TIPS / Inflation Fixed Inc Net Median</i>				-0.4	-1.4	1.8	-1.2	0.0	2.5	2.0	-1.2	Sep-20
<i>eV US TIPS / Inflation Fixed Inc Net Rank</i>				50	54	40	63	--	--	--	63	Sep-20
Value Added Fixed Income	82,025,894	6.2	6.2	1.5	1.7	5.0	7.3	3.2	2.9	--	4.4	Jan-16
<i>Custom Benchmark - Global Fixed Income</i>				1.6	1.4	4.4	6.5	1.2	2.1	3.2	3.6	Jan-16
Eaton Vance High Yield	12,164,837	0.9	14.8	1.5	1.0	4.6	8.5	3.3	3.3	4.3	5.9	Apr-06
<i>ICE BofA US High Yield TR</i>				1.6	1.6	5.4	8.9	3.2	3.2	4.3	6.1	Apr-06
<i>eV US High Yield Fixed Inc Net Median</i>				1.5	1.4	4.8	8.3	3.2	3.2	4.1	5.7	Apr-06
<i>eV US High Yield Fixed Inc Net Rank</i>				45	84	59	47	45	47	30	35	Apr-06
First Eagle Bank Loan Select Fund	11,163,367	0.8	13.6	1.9	3.1	5.9	7.6	5.6	3.6	4.1	4.8	Sep-10
<i>Credit Suisse Leveraged Loans</i>				2.2	3.1	6.3	10.1	6.2	4.0	4.1	4.6	Sep-10
<i>Bank Loan MStar MF Median</i>				2.1	3.0	5.9	9.8	5.4	3.3	3.5	3.9	Sep-10
<i>Bank Loan MStar MF Rank</i>				70	27	53	91	37	31	2	1	Sep-10

Total Retirement Association | As of June 30, 2023

	Market Value (\$)	% of Portfolio	% of Sector	1 Mo (%)	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Manulife Strategic Fixed Income	34,849,016	2.6	42.5	0.7	0.2	3.6	4.5	0.6	--	--	1.2	Jul-19
<i>Bloomberg Multiverse TR</i>				0.1	-1.4	1.6	-0.8	-4.7	-0.9	0.4	-2.6	Jul-19
<i>Multisector Bond MStar MF Median</i>				0.6	0.7	3.4	4.4	1.0	2.2	3.1	1.1	Jul-19
<i>Multisector Bond MStar MF Rank</i>				41	79	41	48	64	--	--	47	Jul-19
Mesirow High Yield	15,276,196	1.2	18.6	1.8	3.1	7.6	10.0	8.2	--	--	5.4	Aug-19
<i>Bloomberg US Corporate High Yield TR</i>				1.7	1.7	5.4	9.1	3.1	3.4	4.4	2.3	Aug-19
<i>eV US High Yield Fixed Inc Net Median</i>				1.5	1.4	4.8	8.3	3.2	3.2	4.1	2.2	Aug-19
<i>eV US High Yield Fixed Inc Net Rank</i>				14	4	2	10	2	--	--	2	Aug-19
Eaton Vance EMD Opportunities Fund	8,572,479	0.7	10.5	3.3	4.7	6.1	14.0	--	--	--	2.2	Aug-20
<i>JP Morgan EMBI Global Diversified</i>				2.2	2.2	4.1	7.4	-3.1	0.6	2.8	-4.4	Aug-20
<i>eV Emg Mkts Fixed Inc - Blended Currency Net Median</i>				3.1	2.8	5.9	10.1	-1.0	1.1	1.9	-2.0	Aug-20
<i>eV Emg Mkts Fixed Inc - Blended Currency Net Rank</i>				40	7	46	10	--	--	--	4	Aug-20
Hedge Funds	80,176,299	6.1	6.1	1.2	1.5	3.1	4.3	3.2	1.0	3.1	3.4	Feb-10
<i>Custom Benchmark</i>				1.4	1.5	2.3	3.7	5.1	3.4	3.4	3.2	Feb-10
ABS Offshore SPC - Global Segregated Portfolio	31,006,511	2.4	38.7	1.4	1.6	3.7	5.1	4.4	3.6	4.6	4.9	Aug-10
<i>HFRI Equity Hedge (Total) Index</i>				3.1	3.1	5.7	7.6	8.9	5.5	5.7	5.5	Aug-10
<i>HFRI FOF: Strategic Index</i>				1.7	2.0	3.2	4.1	4.3	2.7	3.4	3.3	Aug-10
Entrust Special Opportunities Fund III, Ltd.	14,094,406	1.1	17.6	0.0	0.0	5.6	10.3	1.5	-2.0	--	3.2	Oct-16
<i>HFRI Fund of Funds Composite Index (QTR)</i>				1.5	1.5	2.2	3.6	5.0	3.3	3.4	3.8	Oct-16
Old Farm Partners Master Fund, L.P.	16,135,415	1.2	20.1	3.3	4.4	5.3	6.4	6.8	--	--	4.5	Oct-18
<i>HFRI Fund of Funds Composite Index</i>				1.2	1.5	2.3	3.7	5.0	3.3	3.4	3.5	Oct-18
EnTrustPermal Special Opportunities Evergreen Fund, Ltd.	18,939,967	1.4	23.6	0.0	0.0	-1.5	-1.9	0.2	--	--	1.4	Jan-19
<i>HFRI Fund of Funds Composite Index (QTR)</i>				1.5	1.5	2.2	3.6	5.0	3.3	3.4	4.8	Jan-19

Note: The data for Entrust Special Opportunities Fund III, Ltd and Entrust Permal Special Opportunities Evergreen Fund, Ltd is lagged based on March 31, 2023 values.

Total Retirement Association | As of June 30, 2023

	Market Value (\$)	% of Portfolio	% of Sector	1 Mo (%)	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Real Estate	166,999,558	12.7	12.7	-0.9	-1.2	-2.6	-4.0	14.7	11.2	--	9.0	Jan-16
<i>Custom Benchmark</i>				<i>-2.7</i>	<i>-2.7</i>	<i>-5.8</i>	<i>-10.0</i>	<i>8.0</i>	<i>6.4</i>	<i>--</i>	<i>6.4</i>	<i>Jan-16</i>
Core Real Estate	106,925,288	8.1	64.0	-0.9	-1.4	-2.8	-7.7	10.4	8.7	--	8.3	Jan-16
<i>NCREIF-ODCE</i>				<i>-2.7</i>	<i>-2.7</i>	<i>-5.8</i>	<i>-10.0</i>	<i>8.0</i>	<i>6.5</i>	<i>8.7</i>	<i>7.1</i>	<i>Jan-16</i>
TA Realty Core Property Fund, L.P.	74,558,902	5.7	69.7	-1.2	-1.2	-1.9	-6.1	13.1	11.3	--	11.2	Apr-18
<i>NCREIF ODCE Equal Weighted (Net)</i>				<i>-3.1</i>	<i>-3.1</i>	<i>-6.4</i>	<i>-10.5</i>	<i>7.6</i>	<i>6.1</i>	<i>8.1</i>	<i>6.1</i>	<i>Apr-18</i>
JPMorgan Strategic Property	32,366,386	2.5	30.3	-0.3	-1.8	-5.0	-11.3	6.1	--	--	4.7	Apr-19
<i>NCREIF ODCE Equal Weighted (Net)</i>				<i>-3.1</i>	<i>-3.1</i>	<i>-6.4</i>	<i>-10.5</i>	<i>7.6</i>	<i>6.1</i>	<i>8.1</i>	<i>6.0</i>	<i>Apr-19</i>
Non-Core Real Estate	60,074,270	4.6	36.0	-0.9	-0.9	-2.3	4.0	23.0	15.9	--	8.7	Jan-16
Private Equity	233,462,885	17.7	17.7	2.0	2.0	3.9	8.9	28.3	17.7	--	13.3	Jan-16
<i>MSCI ACWI IMI (1Q Lagged)+2%</i>				<i>7.5</i>	<i>7.5</i>	<i>18.6</i>	<i>-5.8</i>	<i>17.9</i>	<i>8.7</i>	<i>10.1</i>	<i>11.3</i>	<i>Jan-16</i>
Private Equity	216,937,388	16.5	92.9	2.0	2.0	4.1	9.8	29.1	18.2	--	13.1	Jan-16
Venture Capital	16,525,497	1.3	7.1	2.5	2.5	0.4	-2.6	18.8	11.0	--	10.8	Jan-16

Note: The data for Real Estate, Private Equity, and Real Assets is based on March 31, 2023 fair market value, adjusted for subsequent cash flows.

Note: The data for TA Core Property Fund is reported in real time and is as of June 30, 2023.

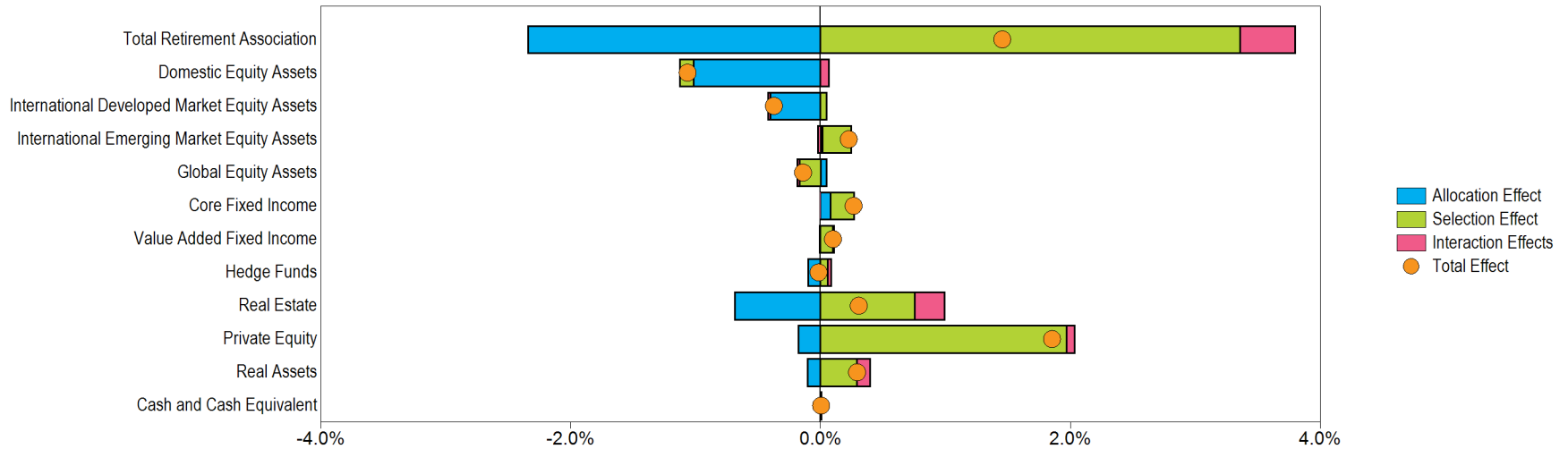
Note: The data for JPMorgan Strategic Property and IFM Global Infrastructure is as of June 30, 2023.

Total Retirement Association | As of June 30, 2023

	Market Value (\$)	% of Portfolio	% of Sector	1 Mo (%)	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Real Assets	126,584,999	9.6	9.6	2.5	2.5	6.3	10.1	14.5	9.0	--	4.8	Jan-16
<i>CPI + 3%</i>				<i>0.6</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>6.5</i>	<i>Jan-16</i>
Core Real Assets	75,421,446	5.7	59.6	2.7	2.5	5.2	9.6	12.9	--	--	11.1	Oct-18
<i>CPI + 3%</i>				<i>0.6</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	75,421,446	5.7	100.0	2.7	2.5	5.2	9.6	12.9	--	--	11.1	Oct-18
<i>CPI + 3%</i>				<i>0.6</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>
Non-Core Real Assets	51,163,553	3.9	40.4	2.4	2.4	8.1	11.1	16.3	7.6	--	4.9	Jan-16
<i>CPI + 3%</i>				<i>0.6</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>6.5</i>	<i>Jan-16</i>
Cash and Cash Equivalent	7,935,703	0.6	0.6									
Cash	7,935,703	0.6	100.0									

Note: The data for Real Estate, Private Equity, and Real Assets is based on March 31, 2023 fair market value, adjusted for subsequent cash flows.

Attribution Effects 1 Year Ending June 30, 2023



Attribution Summary 1 Year Ending June 30, 2023

	Wtd. Actual Return	Wtd. Index Return	Excess Return	Selection Effect	Allocation Effect	Interaction Effects	Total Effects
Domestic Equity Assets	17.2%	18.1%	-0.9%	-0.1%	-1.0%	0.1%	-1.1%
International Developed Market Equity Assets	18.8%	17.9%	0.9%	0.0%	-0.4%	0.0%	-0.4%
International Emerging Market Equity Assets	3.9%	1.0%	2.9%	0.2%	0.0%	0.0%	0.2%
Global Equity Assets	14.1%	15.7%	-1.6%	-0.2%	0.0%	0.0%	-0.1%
Core Fixed Income	0.3%	-1.6%	1.9%	0.2%	0.1%	0.0%	0.3%
Value Added Fixed Income	7.3%	5.7%	1.6%	0.1%	0.0%	0.0%	0.1%
Hedge Funds	4.3%	2.9%	1.4%	0.1%	-0.1%	0.0%	0.0%
Real Estate	-4.0%	-10.6%	6.6%	0.8%	-0.7%	0.2%	0.3%
Private Equity	8.9%	-5.8%	14.7%	2.0%	-0.2%	0.1%	1.9%
Real Assets	10.1%	5.3%	4.8%	0.3%	-0.1%	0.1%	0.3%
Cash and Cash Equivalent	3.6%	3.6%	0.0%	0.0%	0.0%	0.0%	0.0%
Total	7.9%	6.4%	1.5%	3.4%	-2.3%	0.4%	1.5%

Statistics Summary						
5 Years Ending June 30, 2023						
	Anlzd Return	Anlzd Standard Deviation	Information Ratio	Beta	Sharpe Ratio	Tracking Error
Total Retirement Association	7.2%	10.6%	0.2	0.9	0.5	3.9%
Policy Benchmark (Net)	6.4%	10.8%	--	1.0	0.5	0.0%
Domestic Equity Assets	9.6%	21.8%	-0.4	1.1	0.4	4.8%
Russell 3000	11.4%	19.4%	--	1.0	0.5	0.0%
Rhumblin Russell 1000 Value	8.1%	19.1%	0.0	1.0	0.3	0.1%
Russell 1000 Value	8.1%	19.1%	--	1.0	0.3	0.0%
Rhumblin Russell 1000 Growth	15.1%	21.1%	-0.1	1.0	0.6	0.0%
Russell 1000 Growth	15.1%	21.1%	--	1.0	0.6	0.0%
Fisher Midcap Value	11.8%	24.2%	0.9	1.1	0.4	5.8%
Russell MidCap Value	6.8%	22.1%	--	1.0	0.2	0.0%
Newton Small Cap Growth	8.9%	26.2%	0.6	1.0	0.3	7.6%
Russell 2000 Growth	4.2%	24.4%	--	1.0	0.1	0.0%
Vulcan Partners Small Cap Value	--	--	--	--	--	--
Russell 2000 Value	3.5%	24.9%	--	1.0	0.1	0.0%
Systematic Small Cap Free Cash Flow	--	--	--	--	--	--
Russell 2000 Value	3.5%	24.9%	--	1.0	0.1	0.0%
International Equity	0.7%	17.6%	-0.4	0.9	0.0	5.5%
International Equity Custom Benchmark	3.1%	18.2%	--	1.0	0.1	0.0%
International Developed Market Equity Assets	0.5%	19.5%	-0.8	1.1	-0.1	4.9%
MSCI EAFE	4.4%	17.8%	--	1.0	0.2	0.0%
Aristotle International Equity	--	--	--	--	--	--
MSCI EAFE	4.4%	17.8%	--	1.0	0.2	0.0%

	Anlzd Return	Anlzd Standard Deviation	Information Ratio	Beta	Sharpe Ratio	Tracking Error
Walter Scott International Equity	--	--	--	--	--	--
MSCI EAFE	4.4%	17.8%	--	1.0	0.2	0.0%
International Emerging Market Equity Assets	1.2%	17.7%	0.1	0.9	0.0	3.7%
MSCI Emerging Markets	0.9%	18.9%	--	1.0	0.0	0.0%
ABS Emerging Markets	--	--	--	--	--	--
MSCI Emerging Markets	0.9%	18.9%	--	1.0	0.0	0.0%
Driehaus Emerging Markets Growth	--	--	--	--	--	--
MSCI Emerging Markets	0.9%	18.9%	--	1.0	0.0	0.0%
Global Equity Assets	7.7%	16.1%	-0.1	0.9	0.4	4.2%
MSCI ACWI	8.1%	17.9%	--	1.0	0.4	0.0%
First Eagle Global Value Fund	6.5%	14.3%	0.2	0.8	0.3	5.6%
MSCI ACWI Value NR USD	5.2%	18.0%	--	1.0	0.2	0.0%
Kopernik Global All Cap Fund	8.9%	19.0%	0.3	0.8	0.4	13.2%
MSCI ACWI Value NR USD	5.2%	18.0%	--	1.0	0.2	0.0%
Lee Munder Global Multi-Cap Strategy	6.5%	18.5%	-0.7	1.0	0.3	2.4%
MSCI ACWI	8.1%	17.9%	--	1.0	0.4	0.0%
Wellington Durable Enterprises, L.P.	9.0%	16.5%	0.1	0.9	0.5	6.6%
MSCI ACWI	8.1%	17.9%	--	1.0	0.4	0.0%
Fixed Income Assets	2.1%	5.6%	0.3	0.7	0.1	4.7%
Bloomberg US Aggregate TR	0.8%	5.5%	--	1.0	-0.1	0.0%
Core Fixed Income	1.5%	4.4%	0.1	0.8	0.0	2.0%
75% Bbg Aggregate/25% Bbg US TIPs 1-10 year	1.3%	5.1%	--	1.0	0.0	0.0%
Lord Abbett Short Duration Credit Trust II	--	--	--	--	--	--
Bloomberg US Credit 1-3 Yr TR	1.6%	2.2%	--	1.0	0.0	0.0%

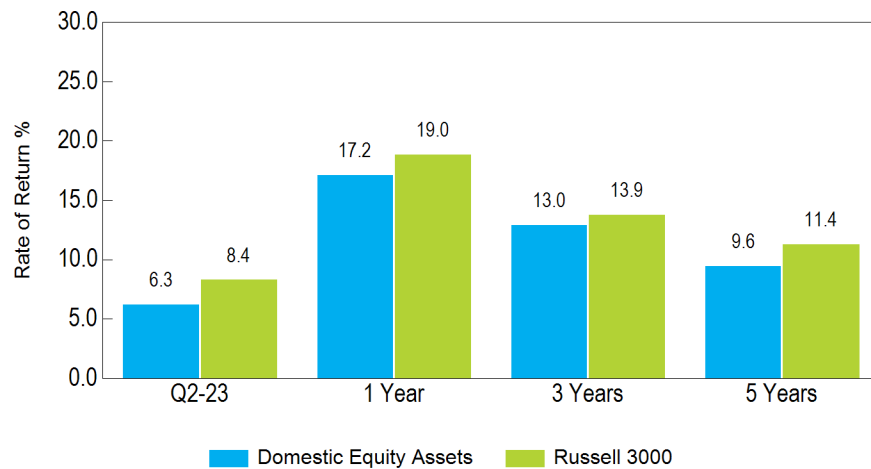
	Anlzd Return	Anlzd Standard Deviation	Information Ratio	Beta	Sharpe Ratio	Tracking Error
Lord Abbett Core Fixed Income Trust II	--	--	--	--	--	--
Bloomberg US Aggregate TR	0.8%	5.5%	--	1.0	-0.1	0.0%
Rhumblin TIPS Trust	--	--	--	--	--	--
Bloomberg US TIPS TR	2.5%	6.0%	--	1.0	0.2	0.0%
Value Added Fixed Income	2.9%	7.4%	0.4	0.8	0.2	1.8%
Custom Benchmark - Global Fixed Income	2.1%	8.7%	--	1.0	0.1	0.0%
Eaton Vance High Yield	3.3%	8.6%	0.1	0.9	0.2	1.1%
ICE BofA US High Yield TR	3.2%	9.4%	--	1.0	0.2	0.0%
First Eagle Bank Loan Select Fund	3.6%	6.9%	-0.5	0.9	0.3	0.9%
Credit Suisse Leveraged Loans	4.0%	7.3%	--	1.0	0.4	0.0%
Manulife Strategic Fixed Income	--	--	--	--	--	--
Bloomberg Multiverse TR	-0.9%	6.8%	--	1.0	-0.4	0.0%
Mesirow High Yield	--	--	--	--	--	--
Bloomberg US Corporate High Yield TR	3.4%	9.3%	--	1.0	0.2	0.0%
Eaton Vance EMD Opportunities Fund	--	--	--	--	--	--
JP Morgan EMBI Global Diversified	0.6%	11.2%	--	1.0	-0.1	0.0%
Hedge Funds	1.0%	13.9%	-0.3	2.0	0.0	8.4%
Custom Benchmark	3.4%	6.3%	--	1.0	0.3	0.0%
ABS Offshore SPC - Global Segregated Portfolio	3.6%	8.7%	-0.5	0.8	0.2	3.7%
HFRI Equity Hedge (Total) Index	5.5%	10.7%	--	1.0	0.4	0.0%
Entrust Special Opportunities Fund III, Ltd.	-2.0%	25.1%	-0.3	2.7	-0.1	18.6%
HFRI Fund of Funds Composite Index (QTR)	3.3%	8.0%	--	1.0	0.2	0.0%
Old Farm Partners Master Fund, L.P.	--	--	--	--	--	--
HFRI Fund of Funds Composite Index	3.3%	6.2%	--	1.0	0.3	0.0%

	Anlzd Return	Anlzd Standard Deviation	Information Ratio	Beta	Sharpe Ratio	Tracking Error
EnTrustPermal Special Opportunities Evergreen Fund, Ltd.	--	--	--	--	--	--
HFRI Fund of Funds Composite Index (QTR)	3.3%	8.0%	--	1.0	0.2	0.0%
Real Estate	11.2%	7.7%	1.5	1.0	1.3	3.2%
Custom Benchmark	6.4%	7.1%	--	1.0	0.7	0.0%
Core Real Estate	8.7%	6.2%	0.8	0.8	1.2	2.7%
NCREIF-ODCE	6.5%	7.1%	--	1.0	0.7	0.0%
TA Realty Core Property Fund, L.P.	11.3%	8.6%	1.6	1.1	1.1	3.2%
NCREIF ODCE Equal Weighted (Net)	6.1%	7.1%	--	1.0	0.6	0.0%
JPMorgan Strategic Property	--	--	--	--	--	--
NCREIF ODCE Equal Weighted (Net)	6.1%	7.1%	--	1.0	0.6	0.0%
Private Equity	17.7%	11.3%	0.5	0.3	1.4	17.6%
MSCI ACWI IMI (1Q Lagged)+2%	8.7%	21.4%	--	1.0	0.3	0.0%
Summit Partners Growth Equity Fund XI	--	--	--	--	--	--
MSCI ACWI IMI (1Q Lagged)+2%	8.7%	21.4%	--	1.0	0.3	0.0%
Real Assets	9.0%	5.6%	0.4	0.6	1.3	5.5%
CPI + 3%	7.0%	1.4%	--	1.0	4.0	0.0%
Core Real Assets	--	--	--	--	--	--
CPI + 3%	7.0%	1.4%	--	1.0	4.0	0.0%
IFM Global Infrastructure	--	--	--	--	--	--
CPI + 3%	7.0%	1.4%	--	1.0	4.0	0.0%
Non-Core Real Assets	7.6%	7.9%	0.1	1.1	0.8	7.8%
CPI + 3%	7.0%	1.4%	--	1.0	4.0	0.0%
ISQ Global Infrastructure Fund III (USTE), L.P.	--	--	--	--	--	--
CPI + 3%	6.2%	1.4%	--	1.0	3.4	0.0%

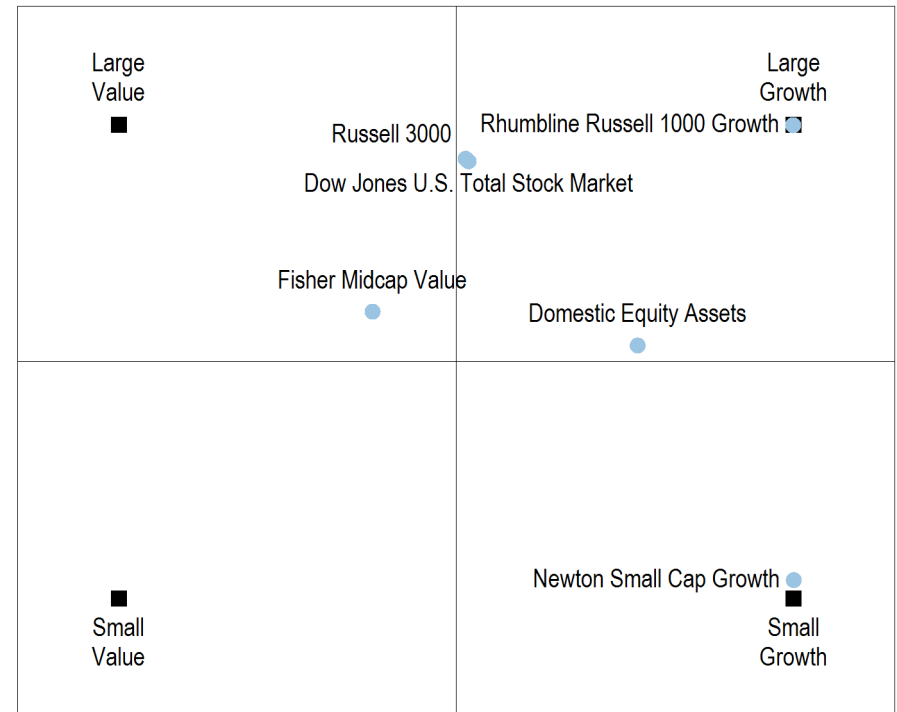
Asset Allocation on June 30, 2023

	Actual	Actual
Fisher Midcap Value	\$53,352,773	23.0%
Newton Small Cap Growth	\$47,945,761	20.7%
Rhumblin Russell 1000 Growth	\$42,842,837	18.5%
Rhumblin Russell 1000 Value	\$41,332,680	17.9%
Systematic Small Cap Free Cash Flow	\$30,126,170	13.0%
Vulcan Partners Small Cap Value	\$15,887,261	6.9%
Total	\$231,487,482	100.0%

Return Summary Ending June 30, 2023

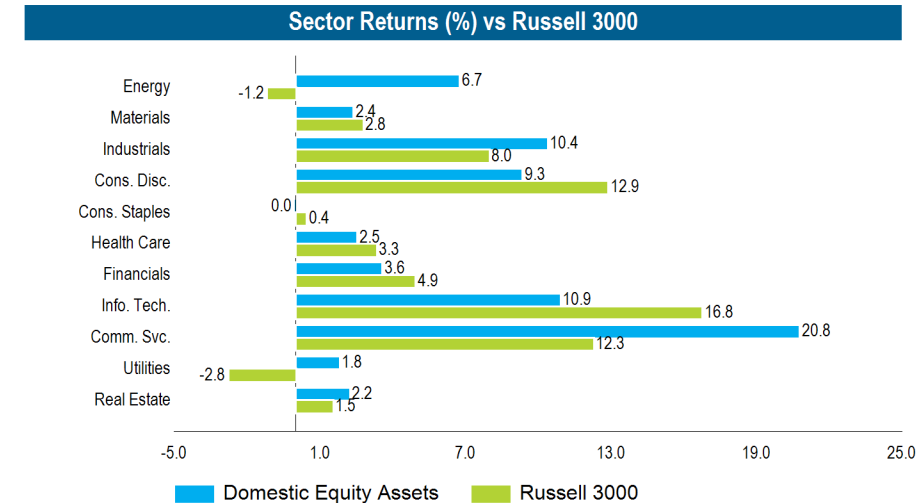
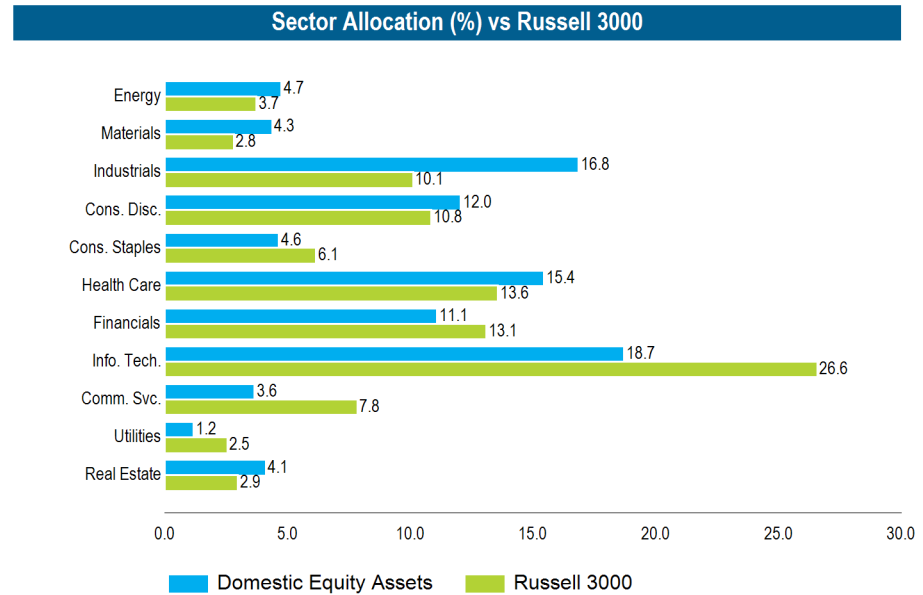


Domestic Equity Assets Style Map



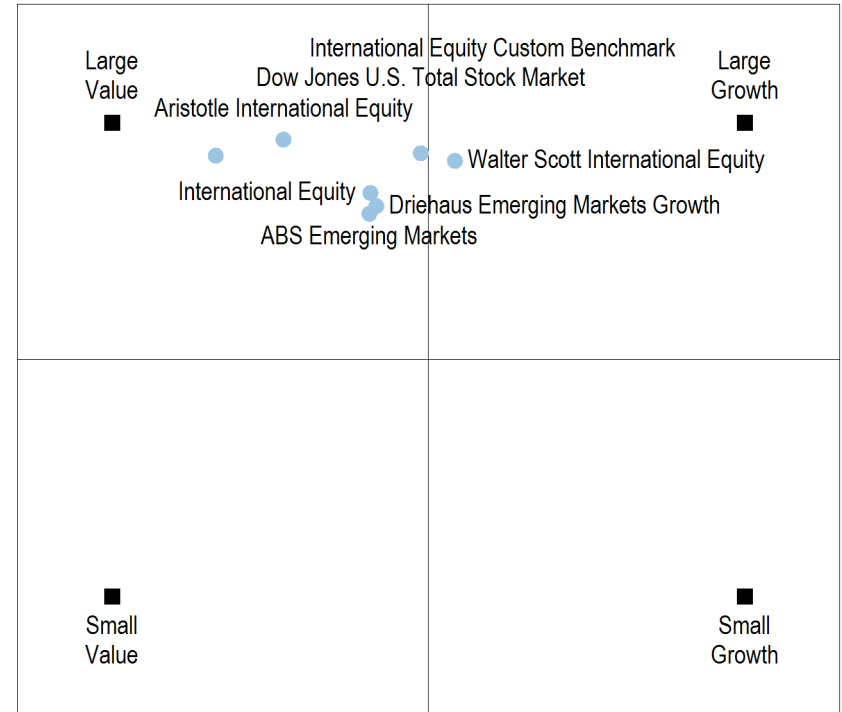
Domestic Equity Assets Equity Characteristics		
	Portfolio Q2-23	Index Q2-23
Market Value		
Market Value (\$M)	231.49	--
Number Of Holdings	1213	3010
Characteristics		
Weighted Avg. Market Cap. (\$B)	235.14	591.90
Median Market Cap (\$B)	10.99	2.35
P/E Ratio	18.20	22.63
Yield	1.31	1.53
EPS Growth - 5 Yrs.	15.77	15.70
Price to Book	3.11	4.16

Top 10 Holdings	
APPLE INC	2.5%
MICROSOFT CORP	2.2%
ISHARES RUSSELL 2000 GROWTH ETF	1.0%
AMAZON.COM INC	1.0%
UNITED RENTALS INC.	0.9%
SYNOPSYS INC	0.9%
NVIDIA CORPORATION	0.9%
CONSTRUCTION PARTNERS INC	0.7%
OWENS CORNING	0.7%
HUBSPOT INC	0.7%
Total	11.5%

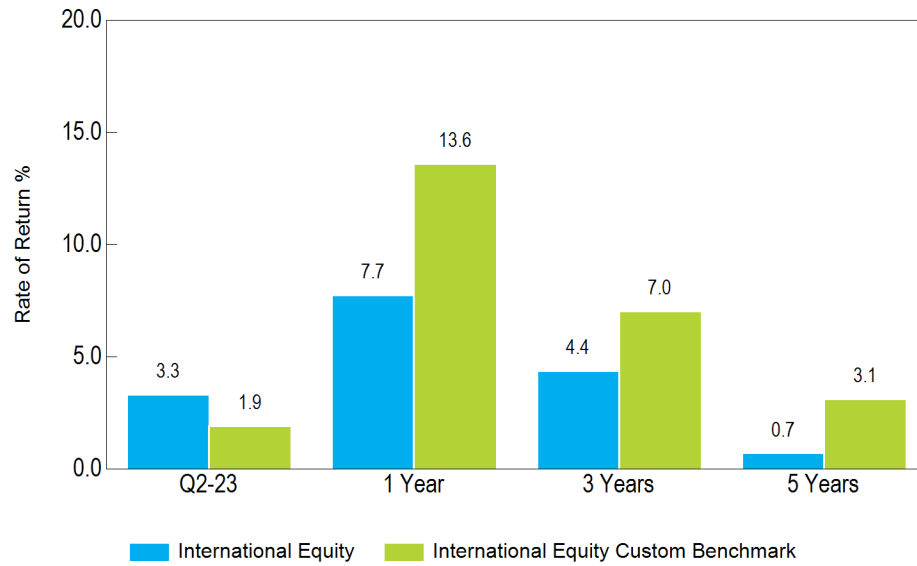


Asset Allocation on June 30, 2023		
	Actual	Actual
ABS Emerging Markets	\$56,757,769	38.2%
Aristotle International Equity	\$22,274,447	15.0%
Driehaus Emerging Markets Growth	\$49,337,867	33.2%
Walter Scott International Equity	\$20,081,984	13.5%
Total	\$148,452,067	100.0%

International Equity Style Map

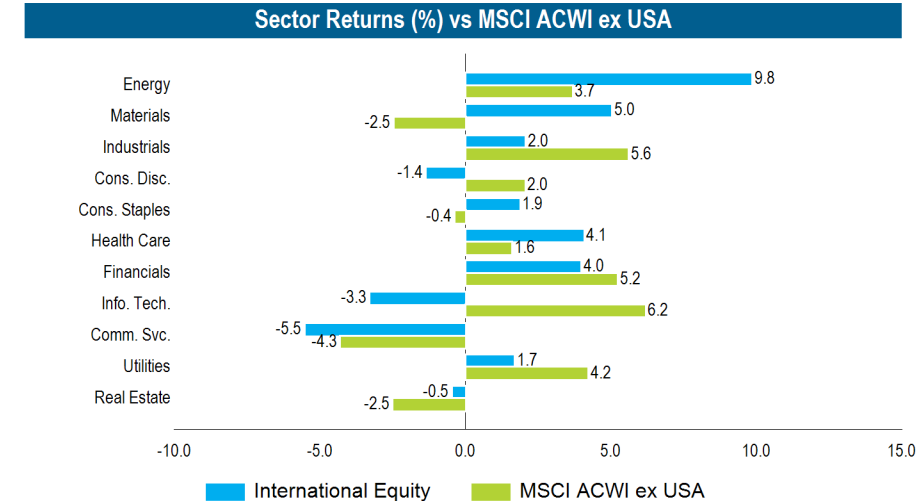
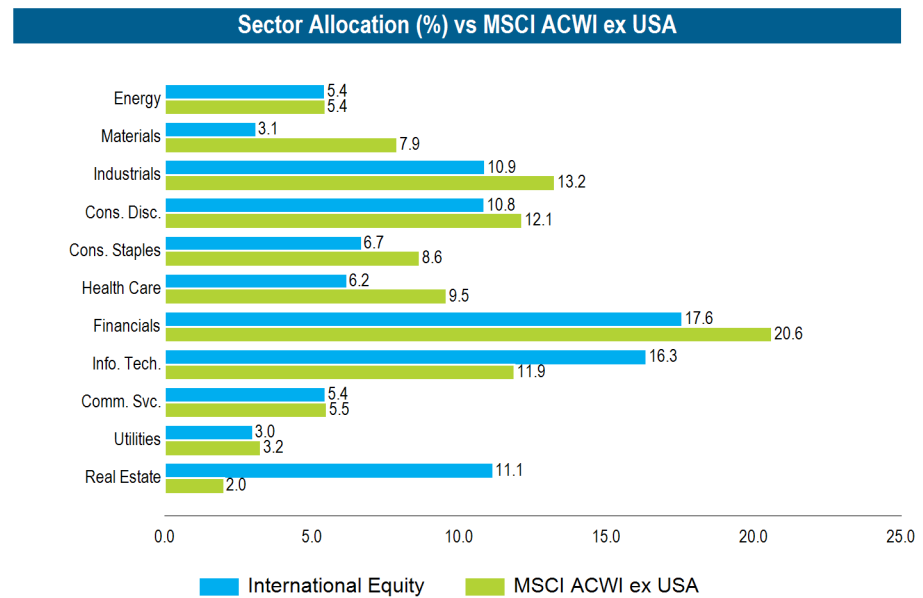


Return Summary Ending June 30, 2023



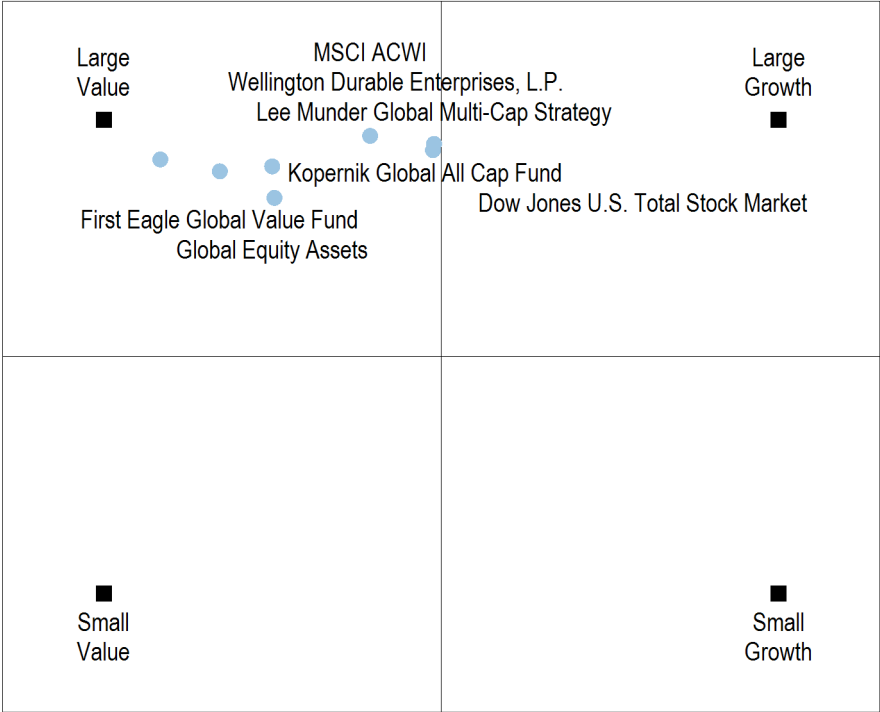
International Equity Equity Characteristics		
	Portfolio Q2-23	Index Q2-23
Market Value		
Market Value (\$M)	148.45	--
Number Of Holdings	200	2306
Characteristics		
Weighted Avg. Market Cap. (\$B)	104.08	90.67
Median Market Cap (\$B)	33.32	9.31
P/E Ratio	16.08	13.77
Yield	3.11	3.29
EPS Growth - 5 Yrs.	8.34	10.04
Price to Book	2.43	2.41

Top 10 Holdings	
CAPITALAND ASCENDAS REIT	6.8%
SAMSUNG ELECTRONICS CO LTD	3.9%
TAIWAN SEMICONDUCTOR MANUFACTURING CO LTD	3.8%
HANG LUNG PROPERTIES LTD	3.3%
AIA GROUP LTD	3.0%
TENCENT HOLDINGS LTD	2.8%
ICICI BANK LTD	1.3%
DASSAULT SYSTEMES SA	1.2%
ACCENTURE PLC	1.2%
INDUSTRIAL AND COMMERCIAL BANK OF CHINA LIMITED	1.1%
Total	28.2%

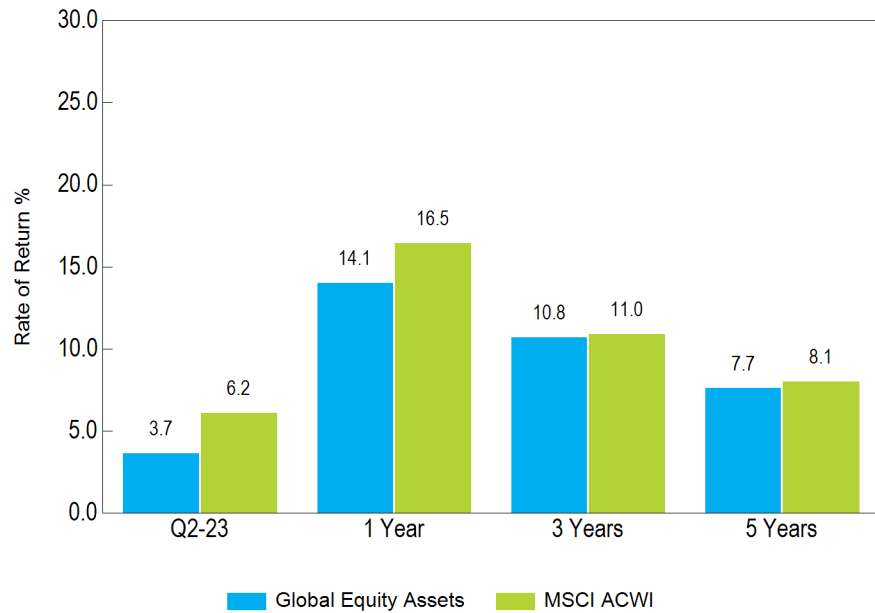


Asset Allocation on June 30, 2023		
	Actual	Actual
First Eagle Global Value Fund	\$26,050,619	17.6%
Kopernik Global All Cap Fund	\$35,056,694	23.7%
Lee Munder Global Multi-Cap Strategy	\$40,089,227	27.1%
Wellington Durable Enterprises, L.P.	\$46,563,212	31.5%
Total	\$147,759,752	100.0%

Global Equity Assets Style Map

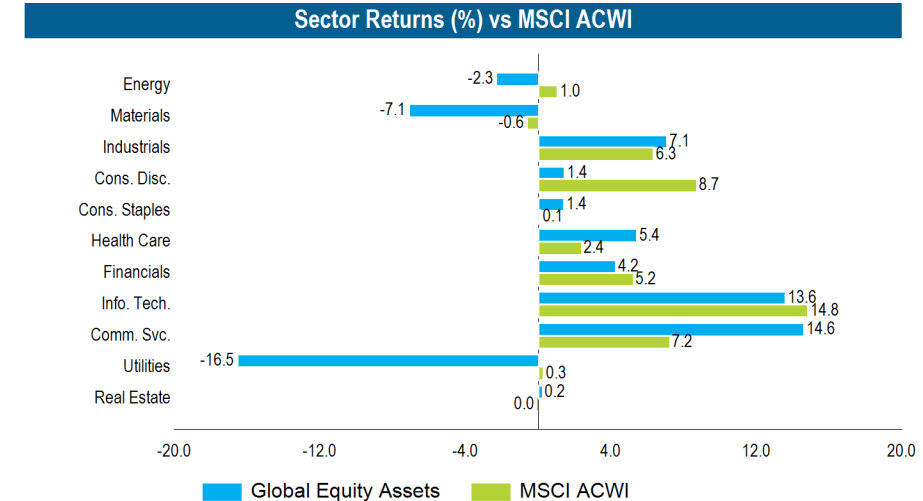
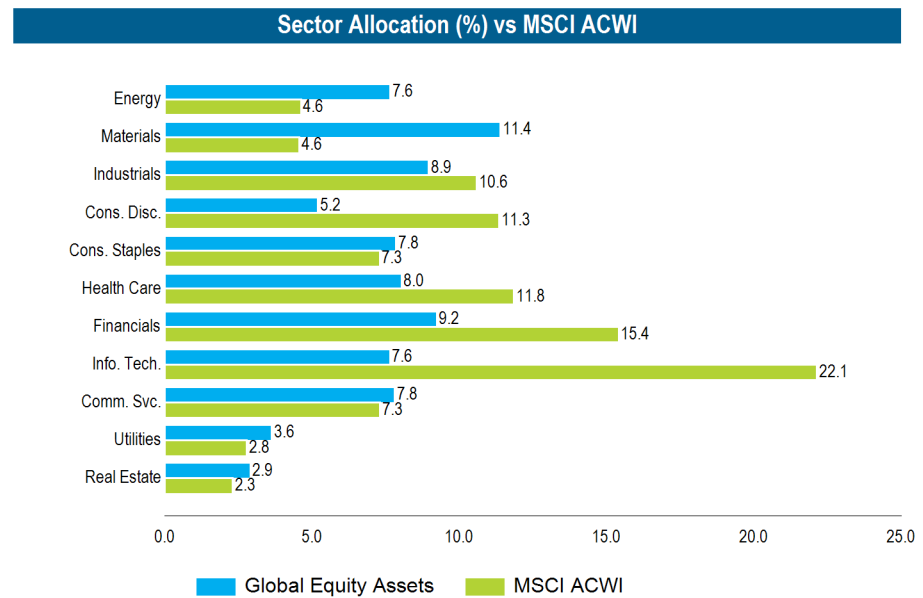


Return Summary Ending June 30, 2023



Global Equity Assets Equity Characteristics		
	Portfolio Q2-23	Index Q2-23
Market Value		
Market Value (\$M)	147.76	--
Number Of Holdings	306	2933
Characteristics		
Weighted Avg. Market Cap. (\$B)	161.15	441.78
Median Market Cap (\$B)	17.69	12.35
P/E Ratio	13.99	18.77
Yield	2.96	2.19
EPS Growth - 5 Yrs.	14.54	13.78
Price to Book	2.67	3.47

Top 10 Holdings	
SPDR GOLD TRUST	3.1%
META PLATFORMS INC	2.9%
ALPHABET INC	2.2%
AMERIPRISE FINANCIAL INC	1.8%
NEWCREST MINING LTD	1.7%
ALEXANDRIA REAL ESTATE EQUITIES INC.	1.6%
KT CORP	1.6%
INTUIT INC.	1.6%
ABBVIE INC	1.5%
ISHARE INC - ISHARES MSCI TAIWAN ETF	1.2%
Total	19.3%



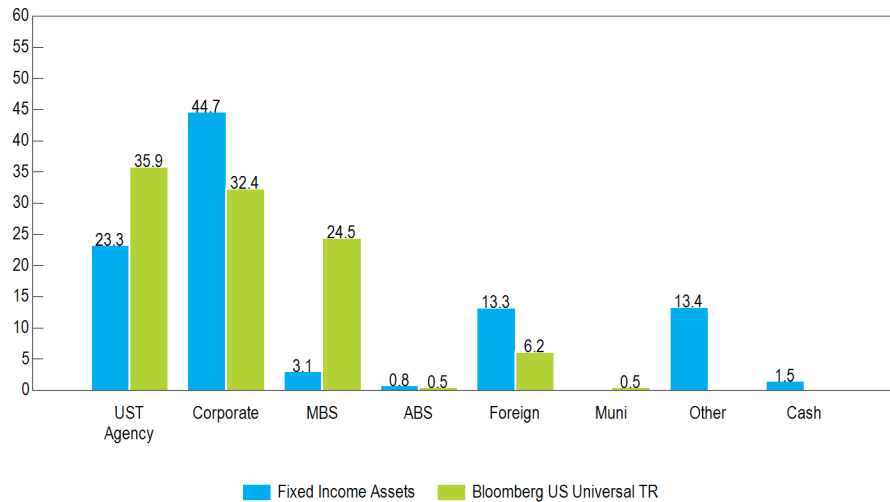
Asset Allocation on June 30, 2023

	Actual	Actual
Eaton Vance EMD Opportunities Fund	\$8,572,479	4.9%
Eaton Vance High Yield	\$12,164,837	7.0%
First Eagle Bank Loan Select Fund	\$11,163,367	6.4%
Lord Abbett Core Fixed Income Trust II	\$40,793,962	23.4%
Lord Abbett Short Duration Credit Trust II	\$38,543,011	22.1%
Manulife Strategic Fixed Income	\$34,849,016	20.0%
Mesirow High Yield	\$15,276,196	8.8%
Rhumblin TIPS Trust	\$13,166,804	7.5%
Total	\$174,529,672	100.0%

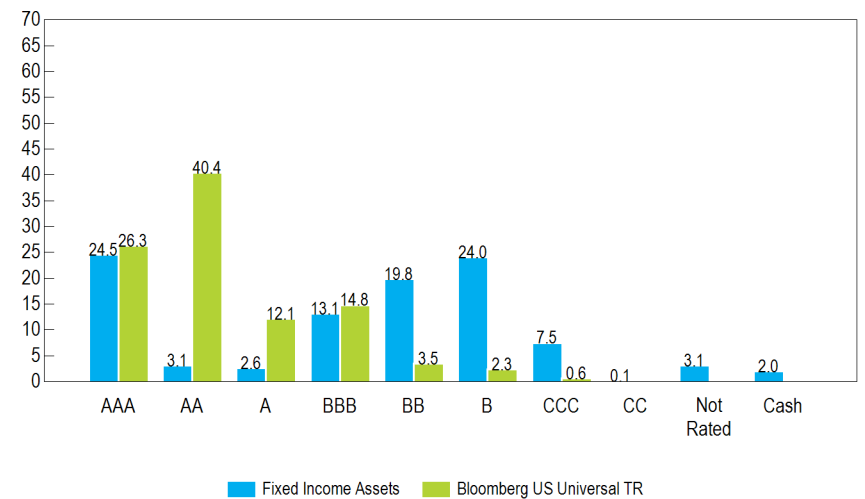
Fixed Income Assets Characteristics vs. Bloomberg US Universal TR

	Portfolio Q2-23	Index Q2-23	Portfolio Q1-23
Fixed Income Characteristics			
Yield to Maturity	7.9	5.2	7.3
Average Duration	4.1	6.1	4.4
Average Quality	BBB	AA	BBB
Weighted Average Maturity	6.2	12.2	6.2

Sector Allocation



Credit Quality Allocation



Rhumblin Russell 1000 Value | As of June 30, 2023

Account Information

Account Name	Rhumblin Russell 1000 Value
Account Structure	Commingled Fund
Investment Style	Passive
Inception Date	4/30/13
Account Type	US Equity
Benchmark	Russell 1000 Value
Universe	eV US Large Cap Value Equity Net

Portfolio Performance Summary

	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Rhumblin Russell 1000 Value	4.1	11.5	14.3	8.1	9.1	9.2	Apr-13
<i>Russell 1000 Value</i>	4.1	11.5	14.3	8.1	9.2	9.2	Apr-13
<i>eV US Large Cap Value Equity Net Median</i>	3.8	11.6	14.7	8.5	9.6	9.6	Apr-13
<i>eV US Large Cap Value Equity Net Rank</i>	45	51	57	62	65	65	Apr-13

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	17.2%

Rhumblin Russell 1000 Value Characteristics

	Portfolio Q2-23	Index Q2-23	Portfolio Q1-23
Market Value			
Market Value (\$M)	41.3	--	47.7
Number Of Holdings	845	844	851
Characteristics			
Weighted Avg. Market Cap. (\$B)	139.1	140.0	153.9
Median Market Cap (\$B)	12.6	12.6	12.2
P/E Ratio	16.8	17.0	16.2
Yield	2.4	2.4	2.3
EPS Growth - 5 Yrs.	11.7	11.5	12.5
Price to Book	2.5	2.5	2.5
Sector Distribution			
Energy	8.0	7.0	8.0
Materials	4.9	4.9	4.5
Industrials	13.6	13.8	10.9
Consumer Discretionary	5.3	5.0	6.0
Consumer Staples	8.4	8.4	7.7
Health Care	15.7	16.0	16.3
Financials	20.1	20.4	20.1
Information Technology	9.0	9.2	7.9
Communication Services	5.1	5.2	8.7
Utilities	5.0	5.2	5.5
Real Estate	4.8	4.9	4.5

Rhumblin Russell 1000 Growth | As of June 30, 2023

Account Information

Account Name	Rhumblin Russell 1000 Growth
Account Structure	Commingled Fund
Investment Style	Passive
Inception Date	7/31/09
Account Type	US Equity
Benchmark	Russell 1000 Growth
Universe	eV US Large Cap Growth Equity Net

Portfolio Performance Summary

	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Rhumblin Russell 1000 Growth	12.8	27.1	13.7	15.1	15.7	15.7	Jul-09
<i>Russell 1000 Growth</i>	12.8	27.1	13.7	15.1	15.7	15.7	Jul-09
<i>eV US Large Cap Growth Equity Net Median</i>	11.6	24.2	10.7	12.5	13.8	14.0	Jul-09
<i>eV US Large Cap Growth Equity Net Rank</i>	34	28	17	10	11	6	Jul-09

Top 10 Holdings

APPLE INC	13.3%
MICROSOFT CORP	11.6%
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	50.9%

Rhumblin Russell 1000 Growth Characteristics

	Portfolio Q2-23	Index Q2-23	Portfolio Q1-23
Market Value			
Market Value (\$M)	42.8	--	42.5
Number Of Holdings	446	444	511
Characteristics			
Weighted Avg. Market Cap. (\$B)	1,047.8	1,053.9	812.7
Median Market Cap (\$B)	18.5	17.9	17.0
P/E Ratio	35.0	35.1	27.8
Yield	0.8	0.8	1.0
EPS Growth - 5 Yrs.	19.3	19.3	23.2
Price to Book	11.3	11.3	9.4
Sector Distribution			
Energy	0.5	0.4	1.3
Materials	0.7	0.7	1.3
Industrials	6.0	6.0	8.1
Consumer Discretionary	15.7	16.0	14.1
Consumer Staples	4.4	4.4	5.9
Health Care	10.9	11.0	11.6
Financials	6.3	6.4	6.6
Information Technology	42.8	43.4	41.3
Communication Services	10.6	10.8	7.1
Utilities	0.1	0.1	0.0
Real Estate	0.9	0.9	1.4

Fisher Midcap Value | As of June 30, 2023

Account Information

Account Name	Fisher Midcap Value
Account Structure	Separate Account
Investment Style	Active
Inception Date	4/30/07
Account Type	US Equity
Benchmark	Russell MidCap Value
Universe	eV US Mid Cap Value Equity Net

Portfolio Performance Summary

	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Fisher Midcap Value	4.9	20.1	18.3	11.8	11.5	9.1	Apr-07
<i>Russell MidCap Value</i>	3.9	10.5	15.0	6.8	9.0	7.1	Apr-07
<i>Russell MidCap</i>	4.8	14.9	12.5	8.5	10.3	8.2	Apr-07
<i>eV US Mid Cap Value Equity Net Median</i>	4.4	12.4	16.7	7.2	9.3	7.5	Apr-07
<i>eV US Mid Cap Value Equity Net Rank</i>	36	4	30	2	5	9	Apr-07

Top 10 Holdings

UNITED RENTALS INC.	3.8%
SYNOPTIS INC	3.6%
ROCKWELL AUTOMATION INC.	2.6%
CHARLES RIVER LABORATORIES INTERNATIONAL INC	2.5%
TOLL BROTHERS INC.	2.5%
TERADYNE INC	2.5%
RAYMOND JAMES FINANCIAL INC.	2.4%
FREEMPORT-MCMORAN INC	2.4%
OWENS CORNING	2.4%
FACTSET RESEARCH SYSTEMS INC.	2.3%
Total	27.2%

Fisher Midcap Value Characteristics

	Portfolio Q2-23	Index Q2-23	Portfolio Q1-23
Market Value			
Market Value (\$M)	53.4	--	56.1
Number Of Holdings	75	699	75
Characteristics			
Weighted Avg. Market Cap. (\$B)	21.6	21.3	21.0
Median Market Cap (\$B)	11.9	10.2	12.7
P/E Ratio	16.9	16.2	14.6
Yield	1.2	2.1	1.2
EPS Growth - 5 Yrs.	15.7	10.2	18.9
Price to Book	2.8	2.4	2.8
Sector Distribution			
Energy	4.6	4.8	5.0
Materials	7.7	7.9	8.3
Industrials	22.6	19.2	20.8
Consumer Discretionary	13.4	9.4	12.4
Consumer Staples	0.8	4.0	0.8
Health Care	15.8	7.6	16.3
Financials	12.8	16.1	13.9
Information Technology	17.1	9.8	17.1
Communication Services	0.2	3.5	0.2
Utilities	0.0	7.6	0.0
Real Estate	5.1	10.2	5.1

Account Information

Account Name	Newton Small Cap Growth
Account Structure	Separate Account
Investment Style	Active
Inception Date	8/31/09
Account Type	US Equity
Benchmark	Russell 2000 Growth
Universe	eV US Small Cap Growth Equity Net

Portfolio Performance Summary

	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Newton Small Cap Growth	5.7	15.8	3.1	8.9	12.4	13.4	Aug-09
<i>Russell 2000 Growth</i>	7.1	18.5	6.1	4.2	8.8	11.2	Aug-09
<i>eV US Small Cap Growth Equity Net Median</i>	5.6	16.1	7.6	7.6	10.4	13.0	Aug-09
<i>eV US Small Cap Growth Equity Net Rank</i>	50	54	79	27	18	34	Aug-09

Top 10 Holdings

ISHARES RUSSELL 2000 GROWTH ETF	5.2%
CONSTRUCTION PARTNERS INC	3.5%
HUBSPOT INC	3.2%
CACTUS INC	3.1%
OLLIE'S BARGAIN OUTLET HOLDINGS INC	2.9%
EQT CORP	2.9%
GROCERY OUTLET INC	2.8%
INTER PARFUMS INC	2.7%
PLANET FITNESS INC	2.7%
CACI INTERNATIONAL INC	2.4%
Total	31.4%

Boston Company Small Cap Growth Characteristics

	Portfolio Q2-23	Index Q2-23	Portfolio Q1-23
Market Value			
Market Value (\$M)	47.9	--	45.3
Number Of Holdings	85	1089	86
Characteristics			
Weighted Avg. Market Cap. (\$B)	5.6	3.4	5.1
Median Market Cap (\$B)	3.3	1.3	3.1
P/E Ratio	16.3	21.6	18.5
Yield	0.3	0.7	0.3
EPS Growth - 5 Yrs.	17.3	18.8	13.3
Price to Book	3.3	4.0	3.1
Sector Distribution			
Energy	7.2	4.5	6.4
Materials	1.3	4.3	1.2
Industrials	13.4	19.9	15.2
Consumer Discretionary	14.9	10.8	14.1
Consumer Staples	7.3	4.3	7.7
Health Care	25.9	23.8	24.3
Financials	2.6	6.0	2.7
Information Technology	12.0	21.1	11.2
Communication Services	2.2	2.0	2.1
Utilities	0.0	1.6	0.0
Real Estate	1.7	1.6	1.7

Vulcan Partners Small Cap Value | As of June 30, 2023

Account Information

Account Name	Vulcan Partners Small Cap Value
Account Structure	Separate Account
Investment Style	Active
Inception Date	4/01/22
Account Type	US Equity
Benchmark	Russell 2000 Value
Universe	eV US Small Cap Value Equity Net

Portfolio Performance Summary

	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Vulcan Partners Small Cap Value	4.9	7.6	--	--	--	-15.2	Apr-22
<i>Russell 2000 Value</i>	3.2	6.0	15.4	3.5	7.3	-8.2	Apr-22
<i>eV US Small Cap Value Equity Net Median</i>	3.8	11.2	16.9	5.6	8.2	-2.6	Apr-22
<i>eV US Small Cap Value Equity Net Rank</i>	29	75	--	--	--	99	Apr-22

Top 10 Holdings

LITTELFUSE INC	7.4%
MEDPACE HOLDINGS INC	5.5%
ITURAN LOCATION AND CONTROL LTD	5.3%
PREMIUM BRANDS HOLDINGS CORP	5.2%
VIRTUS INVESTMENT PARTNERS INC	5.1%
SMARTRENT INC	5.1%
VICTORIA PLC	4.9%
COLLIERS INTERNATIONAL GROUP INC	4.5%
ISS A/S	4.4%
IBSTOCK PLC	4.4%
Total	51.9%

Vulcan Partners Small Cap Value Characteristics

	Portfolio Q2-23	Index Q2-23	Portfolio Q1-23
Market Value			
Market Value (\$M)	15.9	--	15.1
Number Of Holdings	28	1458	28
Characteristics			
Weighted Avg. Market Cap. (\$B)	3.3	2.4	3.0
Median Market Cap (\$B)	2.8	0.8	2.8
P/E Ratio	15.0	9.9	14.8
Yield	2.0	2.6	1.9
EPS Growth - 5 Yrs.	12.3	12.2	10.8
Price to Book	2.6	1.6	2.4
Sector Distribution			
Energy	0.0	9.1	0.0
Materials	10.6	4.8	11.1
Industrials	32.0	14.7	32.2
Consumer Discretionary	4.7	10.2	4.0
Consumer Staples	5.1	2.7	5.0
Health Care	5.4	10.1	5.2
Financials	8.8	24.3	8.0
Information Technology	17.4	6.2	17.1
Communication Services	0.0	2.9	0.0
Utilities	0.0	4.4	0.0
Real Estate	13.6	10.6	15.6

Systematic Small Cap Free Cash Flow | As of June 30, 2023

Account Information

Account Name	Systematic Small Cap Free Cash Flow
Account Structure	Separate Account
Investment Style	Active
Inception Date	4/01/22
Account Type	US Equity
Benchmark	Russell 2000 Value
Universe	eV US Small Cap Value Equity Net

Portfolio Performance Summary

	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Systematic Small Cap Free Cash Flow	4.5	15.0	--	--	--	3.3	Apr-22
<i>Russell 2000 Value</i>	3.2	6.0	15.4	3.5	7.3	-8.2	Apr-22
<i>eV US Small Cap Value Equity Net Median</i>	3.8	11.2	16.9	5.6	8.2	-2.6	Apr-22
<i>eV US Small Cap Value Equity Net Rank</i>	38	29	--	--	--	10	Apr-22

Top 10 Holdings

FIRST CITIZENS BANCSHARES INC	3.2%
MAGNOLIA OIL & GAS CORP	1.9%
EMCOR GROUP INC.	1.9%
KBR INC	1.7%
CROSS COUNTRY HEALTHCARE INC	1.7%
COMFORT SYSTEMS USA INC.	1.6%
NORTHWESTERN CORP	1.6%
MUELLER INDUSTRIES INC.	1.5%
ICF INTERNATIONAL INC	1.5%
CURTISS-WRIGHT CORP	1.3%
Total	18.1%

Systematic Small Cap Free Cash Flow Characteristics

	Portfolio Q2-23	Index Q2-23	Portfolio Q1-23
Market Value			
Market Value (\$M)	30.1	--	28.8
Number Of Holdings	152	1458	148
Characteristics			
Weighted Avg. Market Cap. (\$B)	4.5	2.4	4.2
Median Market Cap (\$B)	2.5	0.8	2.5
P/E Ratio	12.4	9.9	12.3
Yield	1.8	2.6	1.8
EPS Growth - 5 Yrs.	16.2	12.2	16.6
Price to Book	2.0	1.6	1.9
Sector Distribution			
Energy	5.2	9.1	5.1
Materials	4.5	4.8	4.4
Industrials	24.4	14.7	22.4
Consumer Discretionary	13.1	10.2	12.8
Consumer Staples	2.0	2.7	2.0
Health Care	9.8	10.1	9.2
Financials	17.4	24.3	19.0
Information Technology	12.0	6.2	11.5
Communication Services	2.0	2.9	1.8
Utilities	1.9	4.4	2.0
Real Estate	4.7	10.6	4.9

Account Information

Account Name	Aristotle International Equity
Account Structure	Commingled Fund
Investment Style	Active
Inception Date	3/01/21
Account Type	Non-US Stock Developed
Benchmark	MSCI EAFE
Universe	eV EAFE Core Equity Net

Portfolio Performance Summary

	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Aristotle International Equity	4.9	17.7	--	--	--	1.2	Mar-21
MSCI EAFE	3.0	18.8	8.9	4.4	5.4	2.1	Mar-21
eV EAFE Core Equity Net Median	2.8	16.4	8.2	3.8	5.7	0.9	Mar-21
eV EAFE Core Equity Net Rank	3	35	--	--	--	43	Mar-21

Top 10 Holdings

ACCENTURE PLC	4.7%
ASHTED GROUP PLC	3.9%
MUENCHENER RUCK.	3.8%
SONY GROUP CORPORATION	3.8%
LVMH MOET HENNESSY LOUIS VUITTON SE	3.8%
BROOKFIELD CORP	3.6%
DASSAULT SYSTEMES SA	3.5%
ALCON INC	3.0%
RENTOKIL INITIAL PLC	3.0%
COCA-COLA EUROPACIFIC PARTNERS PLC	2.9%
Total	36.0%

Aristotle International Equity Characteristics

	Portfolio Q2-23	Index Q2-23	Portfolio Q1-23
Market Value			
Market Value (\$M)	22.3	--	21.2
Number Of Holdings	47	798	48
Characteristics			
Weighted Avg. Market Cap. (\$B)	83.9	86.8	79.4
Median Market Cap (\$B)	33.6	12.4	30.2
P/E Ratio	19.6	14.8	17.7
Yield	2.2	3.3	2.2
EPS Growth - 5 Yrs.	5.0	8.7	6.5
Price to Book	2.6	2.5	2.4
Sector Distribution			
Energy	5.1	4.2	4.9
Materials	4.1	7.4	6.4
Industrials	19.2	16.3	18.4
Consumer Discretionary	14.8	12.6	15.5
Consumer Staples	7.6	10.1	7.7
Health Care	8.9	13.2	8.4
Financials	18.4	18.2	18.6
Information Technology	13.2	8.2	12.6
Communication Services	2.4	4.1	2.5
Utilities	0.0	3.5	0.0
Real Estate	0.0	2.3	0.0

Walter Scott International Equity | As of June 30, 2023

Account Information

Account Name	Walter Scott International Equity
Account Structure	Commingled Fund
Investment Style	Active
Inception Date	3/01/21
Account Type	Non-US Stock Developed
Benchmark	MSCI EAFE
Universe	eV EAFE Core Equity Net

Portfolio Performance Summary

	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Walter Scott International Equity	3.3	20.1	--	--	--	1.2	Mar-21
MSCI EAFE	3.0	18.8	8.9	4.4	5.4	2.1	Mar-21
eV EAFE Core Equity Net Median	2.8	16.4	8.2	3.8	5.7	0.9	Mar-21
eV EAFE Core Equity Net Rank	36	12	--	--	--	45	Mar-21

Top 10 Holdings

CAPITALAND ASCENDAS REIT	31.5%
HANG LUNG PROPERTIES LTD	15.4%
AIA GROUP LTD	8.7%
CLP HOLDINGS LTD	5.1%
ATLAS COPCO AB	3.5%
COMPASS GROUP PLC	3.3%
SHIN-ETSU CHEMICAL CO LTD	2.9%
EXPERIAN PLC	2.1%
INDUSTRIA DE DISENO TEXTIL INDITEX SA	1.8%
ALIMENTATION COUCHE-TARD INC	1.8%
Total	76.0%

Walter Scott International Equity Characteristics

	Portfolio Q2-23	Index Q2-23	Portfolio Q1-23
Market Value			
Market Value (\$M)	20.1	--	19.4
Number Of Holdings	51	798	53
Characteristics			
Weighted Avg. Market Cap. (\$B)	45.6	86.8	46.4
Median Market Cap (\$B)	41.8	12.4	40.9
P/E Ratio	20.4	14.8	21.8
Yield	4.7	3.3	3.6
EPS Growth - 5 Yrs.	-2.9	8.7	-4.2
Price to Book	2.2	2.5	2.1
Sector Distribution			
Energy	0.9	4.2	0.9
Materials	4.6	7.4	3.5
Industrials	12.3	16.3	10.6
Consumer Discretionary	6.3	12.6	5.9
Consumer Staples	2.5	10.1	4.3
Health Care	7.1	13.2	6.7
Financials	8.7	18.2	13.0
Information Technology	5.7	8.2	5.6
Communication Services	0.0	4.1	0.0
Utilities	5.1	3.5	5.0
Real Estate	46.8	2.3	44.5

Driehaus Emerging Markets Growth | As of June 30, 2023

Account Information

Account Name	Driehaus Emerging Markets Growth
Account Structure	Commingled Fund
Investment Style	Active
Inception Date	3/01/19
Account Type	Non-US Stock Emerging
Benchmark	MSCI Emerging Markets
Universe	eV Emg Mkts Equity Net

Portfolio Performance Summary

	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Driehaus Emerging Markets Growth	2.2	2.0	2.8	--	--	4.3	Mar-19
MSCI Emerging Markets	0.9	1.7	2.3	0.9	3.0	1.1	Mar-19
eV Emg Mkts Equity Net Median	2.2	6.1	4.2	2.2	3.7	2.8	Mar-19
eV Emg Mkts Equity Net Rank	51	78	61	--	--	30	Mar-19

Top 10 Holdings

TAIWAN SEMICONDUCTOR MANUFACTURING CO LTD	6.7%
SAMSUNG ELECTRONICS CO LTD	6.1%
TENCENT HOLDINGS LTD	5.2%
ICICI BANK LTD	2.4%
INDUSTRIAL AND COMMERCIAL BANK OF CHINA LIMITED	2.1%
BANCO DO BRASIL ON	2.1%
PT BANK MANDIRI (PERSERO) TBK	1.8%
GALAXY ENTERTAINMENT GROUP LTD	1.8%
RELIANCE INDUSTRIES LTD	1.8%
DELTA ELECTRONICS INC	1.6%
Total	31.6%

Driehaus Emerging Markets Growth Characteristics

	Portfolio Q2-23	Index Q2-23	Portfolio Q1-23
Market Value			
Market Value (\$M)	49.3	--	48.2
Number Of Holdings	114	1421	104
Characteristics			
Weighted Avg. Market Cap. (\$B)	136.8	111.9	148.9
Median Market Cap (\$B)	17.1	6.7	20.8
P/E Ratio	12.8	12.2	13.2
Yield	2.9	3.4	2.5
EPS Growth - 5 Yrs.	16.5	13.5	15.1
Price to Book	2.6	2.4	2.7
Sector Distribution			
Energy	7.3	5.0	5.7
Materials	2.0	8.1	2.1
Industrials	6.5	6.3	7.1
Consumer Discretionary	10.8	13.2	12.5
Consumer Staples	7.9	6.4	6.6
Health Care	4.5	3.8	5.2
Financials	20.6	21.9	18.2
Information Technology	21.9	21.2	21.8
Communication Services	8.9	9.8	9.5
Utilities	3.5	2.6	3.3
Real Estate	2.4	1.7	3.4

First Eagle Global Value Fund | As of June 30, 2023

Account Information

Account Name	First Eagle Global Value Fund
Account Structure	Commingled Fund
Investment Style	Active
Inception Date	2/01/18
Account Type	Equity
Benchmark	MSCI ACWI Value NR USD
Universe	eV Global Value Equity Net

Portfolio Performance Summary

	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
First Eagle Global Value Fund	3.2	13.9	10.2	6.5	--	5.0	Feb-18
MSCI ACWI Value NR USD	3.0	10.0	11.8	5.2	6.2	3.1	Feb-18
eV Global Value Equity Net Median	3.6	15.2	12.9	6.1	7.2	4.3	Feb-18
eV Global Value Equity Net Rank	58	62	80	48	--	36	Feb-18

Top 10 Holdings

SPDR GOLD TRUST	10.6%
ORACLE CORP	3.8%
META PLATFORMS INC	2.8%
EXXON MOBIL CORP	2.5%
SCHLUMBERGER LTD	2.3%
HCA HEALTHCARE INC	2.2%
COMCAST CORP	2.1%
CIE FINANCIERE RICHEMONT AG, ZUG	1.9%
PHILIP MORRIS INTERNATIONAL INC	1.6%
ALPHABET INC	1.5%
Total	31.2%

First Eagle Global Value Fund Characteristics

	Portfolio Q2-23	Index Q2-23	Portfolio Q1-23
Market Value			
Market Value (\$M)	26.1	--	25.2
Number Of Holdings	116	2933	129
Characteristics			
Weighted Avg. Market Cap. (\$B)	161.3	441.8	154.3
Median Market Cap (\$B)	26.9	12.4	26.0
P/E Ratio	18.1	18.8	17.3
Yield	2.2	2.2	2.5
EPS Growth - 5 Yrs.	8.4	13.8	9.3
Price to Book	2.5	3.5	2.3
Sector Distribution			
Energy	7.0	4.6	5.5
Materials	5.0	4.6	5.3
Industrials	12.1	10.6	10.8
Consumer Discretionary	7.7	11.3	7.2
Consumer Staples	14.8	7.3	12.9
Health Care	7.9	11.8	6.6
Financials	12.5	15.4	10.4
Information Technology	10.8	22.1	9.1
Communication Services	7.1	7.3	5.5
Utilities	0.3	2.8	0.4
Real Estate	3.5	2.3	3.4

Kopernik Global All Cap Fund | As of June 30, 2023

Account Information

Account Name	Kopernik Global All Cap Fund
Account Structure	Commingled Fund
Investment Style	Active
Inception Date	2/01/18
Account Type	Equity
Benchmark	MSCI ACWI Value NR USD
Universe	eV Global All Cap Value Eq Net

Portfolio Performance Summary

	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Kopernik Global All Cap Fund	-0.7	9.4	10.9	8.9	--	6.9	Feb-18
MSCI ACWI Value NR USD	3.0	10.0	11.8	5.2	6.2	3.1	Feb-18
eV Global All Cap Value Eq Net Median	3.5	15.6	13.5	6.0	7.1	4.0	Feb-18
eV Global All Cap Value Eq Net Rank	99	87	72	12	--	16	Feb-18

Top 10 Holdings

KT CORP	4.7%
NEWCREST MINING LTD	4.5%
SOUTHWESTERN ENERGY CO	3.4%
LG UPLUS CORP	3.3%
KAZATOMPROM JSC NAC	3.2%
GOLDEN AGRI-RESOURCES LTD	2.7%
SPROTT PHYSICAL URANIUM TR UNIT	2.7%
RANGE RESOURCES CORP.	2.4%
CGN POWER CO LTD	2.4%
WHEATON PRECIOUS METALS CORP	2.4%
Total	31.7%

Kopernik Global All Cap Fund Characteristics

	Portfolio Q2-23	Index Q2-23	Portfolio Q1-23
Market Value			
Market Value (\$M)	35.1	--	35.3
Number Of Holdings	109	2933	107
Characteristics			
Weighted Avg. Market Cap. (\$B)	11.4	441.8	9.5
Median Market Cap (\$B)	2.3	12.4	1.9
P/E Ratio	6.6	18.8	7.0
Yield	4.4	2.2	4.3
EPS Growth - 5 Yrs.	17.7	13.8	14.4
Price to Book	1.7	3.5	1.8
Sector Distribution			
Energy	14.3	4.6	13.2
Materials	25.5	4.6	25.3
Industrials	10.3	10.6	12.4
Consumer Discretionary	4.3	11.3	4.6
Consumer Staples	6.2	7.3	6.8
Health Care	3.4	11.8	3.9
Financials	4.4	15.4	4.3
Information Technology	0.1	22.1	0.4
Communication Services	6.8	7.3	6.3
Utilities	7.0	2.8	6.5
Real Estate	0.8	2.3	0.7

Lee Munder Global Multi-Cap Strategy | As of June 30, 2023

Account Information

Account Name	Lee Munder Global Multi-Cap Strategy
Account Structure	Separate Account
Investment Style	Active
Inception Date	3/01/18
Account Type	Equity
Benchmark	MSCI ACWI
Universe	eV All Global Equity Net

Portfolio Performance Summary

	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Lee Munder Global Multi-Cap Strategy	6.1	15.1	11.0	6.5	--	5.9	Mar-18
MSCI ACWI	6.2	16.5	11.0	8.1	8.8	7.2	Mar-18
eV All Global Equity Net Median	4.6	15.8	10.5	7.6	8.7	7.0	Mar-18
eV All Global Equity Net Rank	31	56	45	67	--	66	Mar-18

Top 10 Holdings

META PLATFORMS INC	5.9%
AMERIPRISE FINANCIAL INC	5.0%
ALPHABET INC	4.8%
ALEXANDRIA REAL ESTATE EQUITIES INC.	4.5%
INTUIT INC.	4.5%
ABBVIE INC	4.2%
ISHARE INC - ISHARES MSCI TAIWAN ETF	3.4%
THERMO FISHER SCIENTIFIC INC	2.6%
PORTLAND GENERAL ELECTRIC CO	2.5%
VISA INC	2.3%
Total	39.7%

Lee Munder Global Multi-Cap Strategy Characteristics

	Portfolio Q2-23	Index Q2-23	Portfolio Q1-23
Market Value			
Market Value (\$M)	40.1	--	37.7
Number Of Holdings	91	2933	93
Characteristics			
Weighted Avg. Market Cap. (\$B)	292.7	441.8	423.6
Median Market Cap (\$B)	74.5	12.4	90.7
P/E Ratio	22.3	18.8	19.4
Yield	2.3	2.2	2.1
EPS Growth - 5 Yrs.	17.1	13.8	16.8
Price to Book	3.8	3.5	4.1
Sector Distribution			
Energy	2.2	4.6	4.3
Materials	3.1	4.6	2.0
Industrials	5.7	10.6	8.9
Consumer Discretionary	4.3	11.3	11.2
Consumer Staples	4.8	7.3	8.4
Health Care	12.2	11.8	12.7
Financials	11.3	15.4	13.3
Information Technology	12.1	22.1	20.0
Communication Services	9.0	7.3	7.2
Utilities	2.8	2.8	1.5
Real Estate	4.3	2.3	1.3

Account Information

Account Name	Rhumblin TIPS Trust
Account Structure	Commingled Fund
Investment Style	Passive
Inception Date	9/01/20
Account Type	US Fixed Income Investment Grade
Benchmark	Bloomberg US TIPS TR
Universe	eV US TIPS / Inflation Fixed Inc Net

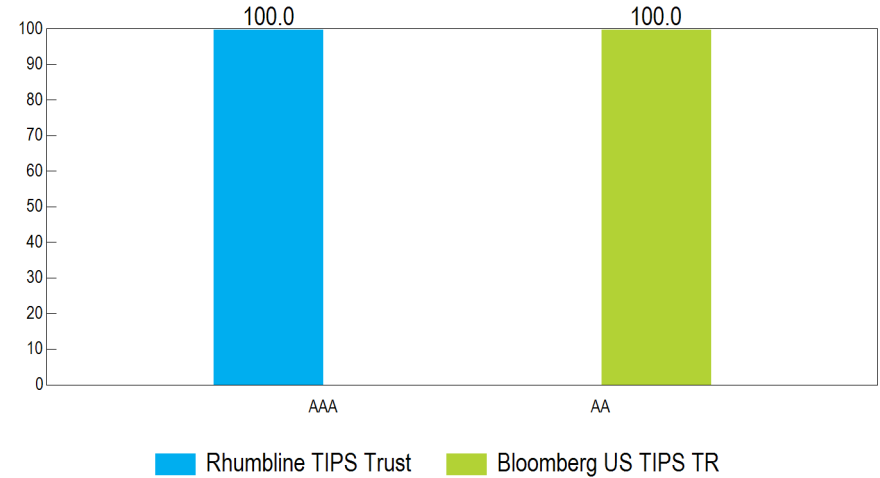
Portfolio Performance Summary

	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Rhumblin TIPS Trust	-1.4	-1.4	--	--	--	-1.3	Sep-20
Bloomberg US TIPS TR	-1.4	-1.4	-0.1	2.5	2.1	-1.3	Sep-20
eV US TIPS / Inflation Fixed Inc Net Median	-1.4	-1.2	0.0	2.5	2.0	-1.2	Sep-20
eV US TIPS / Inflation Fixed Inc Net Rank	54	63	--	--	--	63	Sep-20

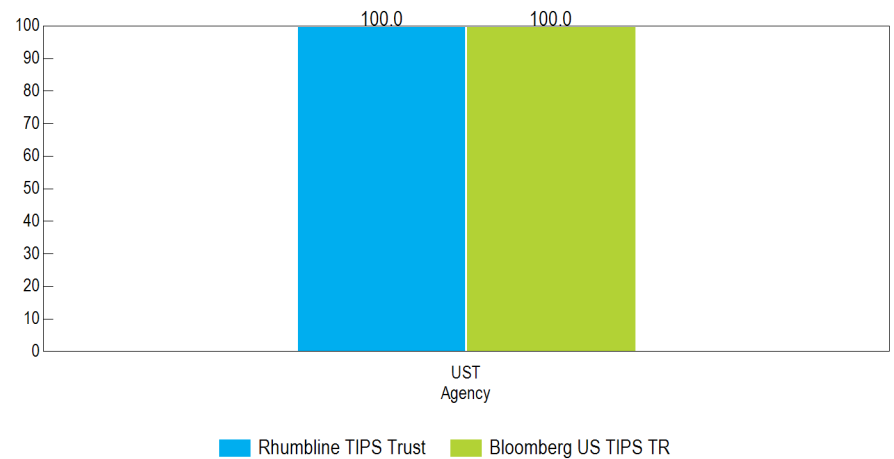
Rhumblin TIPS Trust Characteristics vs. Bloomberg US TIPS TR

	Portfolio Q2-23	Index Q2-23	Portfolio Q1-23
Fixed Income Characteristics			
Yield to Maturity	4.3	4.3	4.2
Average Duration	6.7	6.7	6.9
Average Quality	AAA	AA	AAA
Weighted Average Maturity	7.2	7.2	7.4

Credit Quality Allocation



Sector Allocation



Account Information

Account Name	Eaton Vance High Yield
Account Structure	Commingled Fund
Investment Style	Active
Inception Date	4/30/06
Account Type	US Fixed Income High Yield
Benchmark	ICE BofA US High Yield TR
Universe	eV US High Yield Fixed Inc Net

Portfolio Performance Summary

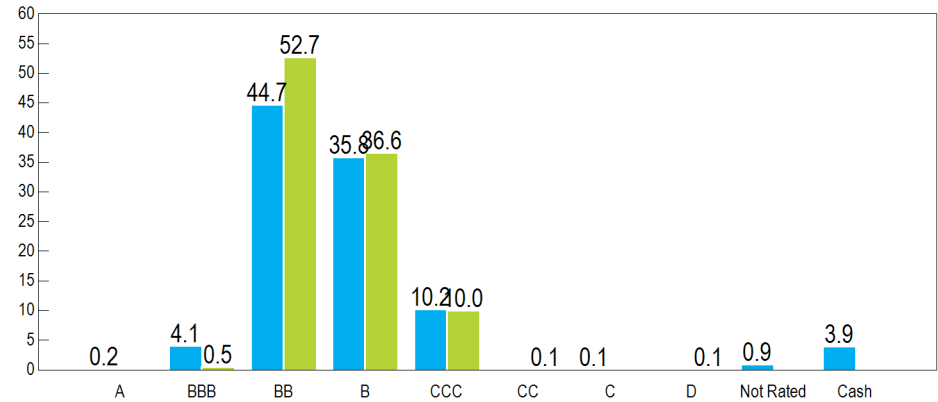
	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Eaton Vance High Yield	1.0	8.5	3.3	3.3	4.3	5.9	Apr-06
ICE BofA US High Yield TR	1.6	8.9	3.2	3.2	4.3	6.1	Apr-06
eV US High Yield Fixed Inc Net Median	1.4	8.3	3.2	3.2	4.1	5.7	Apr-06
eV US High Yield Fixed Inc Net Rank	84	47	45	47	30	35	Apr-06

Eaton Vance High Yield Characteristics

vs. ICE BofA US High Yield TR

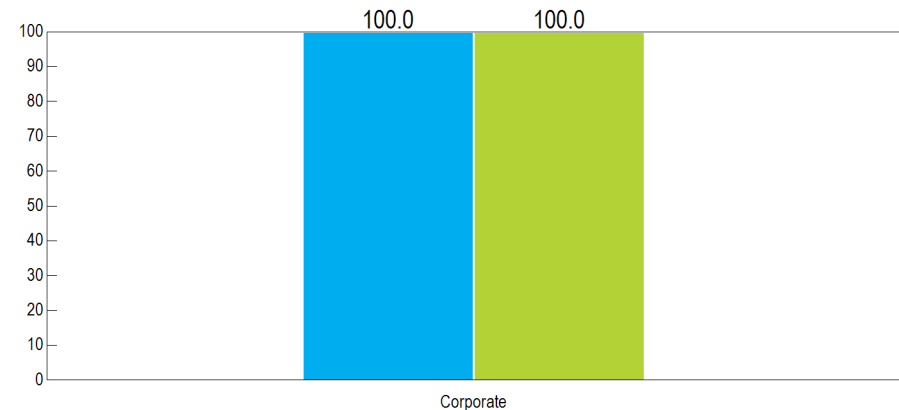
	Portfolio Q2-23	Index Q2-23	Portfolio Q1-23
Fixed Income Characteristics			
Yield to Maturity		8.1	8.6
Average Duration		3.7	4.1
Average Quality		B	B
Weighted Average Maturity		5.5	5.1

Credit Quality Allocation



Eaton Vance High Yield (Blue) ICE BofA US High Yield TR (Green)

Sector Allocation



Eaton Vance High Yield (Blue) ICE BofA US High Yield TR (Green)

Eaton Vance EMD Opportunities Fund | As of June 30, 2023

Account Information

Account Name	Eaton Vance EMD Opportunities Fund
Account Structure	Commingled Fund
Investment Style	Passive
Inception Date	8/01/20
Account Type	Non-US Fixed Income
Benchmark	JP Morgan EMBI Global Diversified
Universe	eV Emg Mkts Fixed Inc - Blended Currency Net

Portfolio Performance Summary

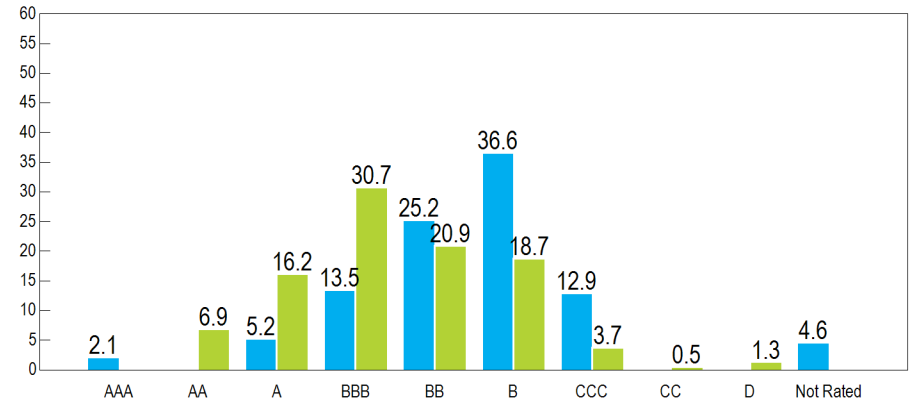
	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Eaton Vance EMD Opportunities Fund	4.7	14.0	--	--	--	2.2	Aug-20
JP Morgan EMBI Global Diversified	2.2	7.4	-3.1	0.6	2.8	-4.4	Aug-20
eV Emg Mkts Fixed Inc - Blended Currency Net Median	2.8	10.1	-1.0	1.1	1.9	-2.0	Aug-20
eV Emg Mkts Fixed Inc - Blended Currency Net Rank	7	10	--	--	--	4	Aug-20

Eaton Vance EMD Opportunities Fund Characteristics vs. JP Morgan EMBI Global Diversified

	Portfolio Q1-23	Index Q1-23	Portfolio Q4-22
Fixed Income Characteristics			
Yield to Maturity		11.8	7.8
Average Duration		4.1	6.9
Average Quality		BB	BBB
Weighted Average Maturity		8.1	11.7
			6.6

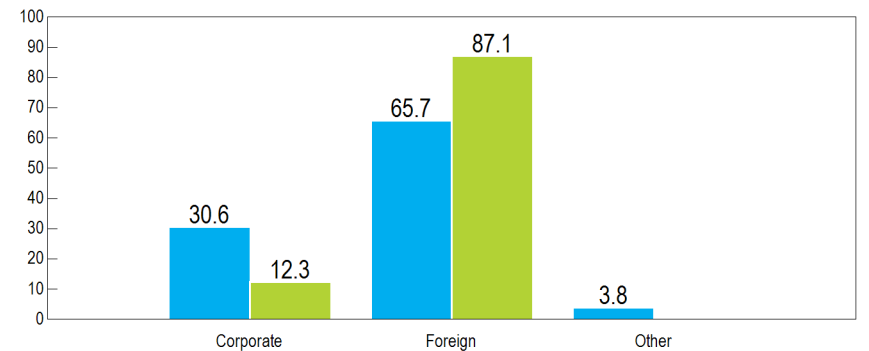
Eaton Vance EMD Opportunities Fund characteristics are lagged as of March 31, 2023.

Credit Quality Allocation



Legend: Eaton Vance EMD Opportunities Fund (Blue), JP Morgan EMBI Global Diversified (Green)

Sector Allocation



Legend: Eaton Vance EMD Opportunities Fund (Blue), JP Morgan EMBI Global Diversified (Green)

Account Information

Account Name	First Eagle Bank Loan Select Fund
Account Structure	Commingled Fund
Investment Style	Active
Inception Date	9/30/10
Account Type	US Fixed Income High Yield
Benchmark	Credit Suisse Leveraged Loans
Universe	Bank Loan MStar MF

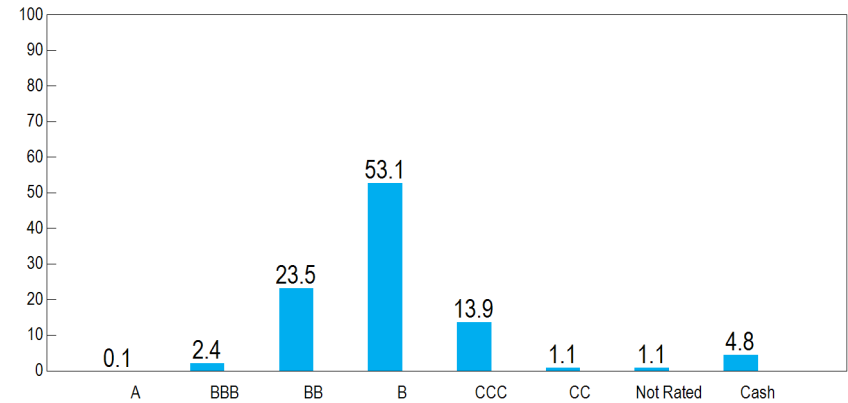
Portfolio Performance Summary

	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
First Eagle Bank Loan Select Fund	3.1	7.6	5.6	3.6	4.1	4.8	Sep-10
Credit Suisse Leveraged Loans	3.1	10.1	6.2	4.0	4.1	4.6	Sep-10
Bank Loan MStar MF Median	3.0	9.8	5.4	3.3	3.5	3.9	Sep-10
Bank Loan MStar MF Rank	27	91	37	31	2	1	Sep-10

THL Bank Loan Select Fund Characteristics

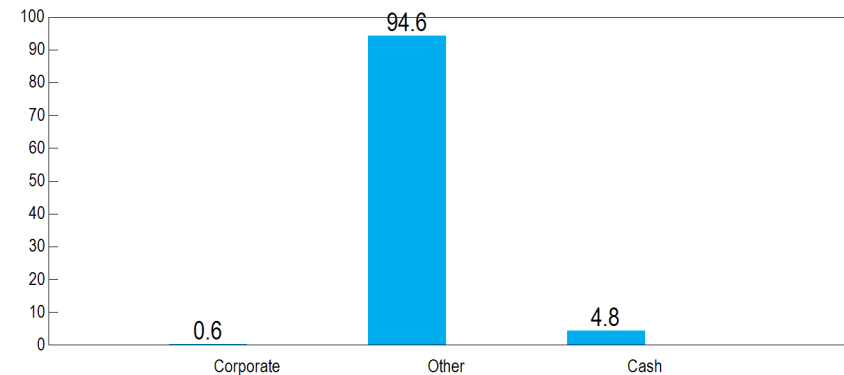
	Portfolio Q2-23	Portfolio Q1-23
Fixed Income Characteristics		
Yield to Maturity	12.0	11.4
Average Duration	0.2	0.2
Average Quality	B	B
Weighted Average Maturity	4.1	4.3

Credit Quality Allocation



First Eagle Bank Loan Select Fund

Sector Allocation



First Eagle Bank Loan Select Fund

Account Information

Account Name	Manulife Strategic Fixed Income
Account Structure	Commingled Fund
Investment Style	Active
Inception Date	7/17/19
Account Type	US Fixed Income High Yield
Benchmark	Bloomberg Multiverse TR
Universe	Multisector Bond MStar MF

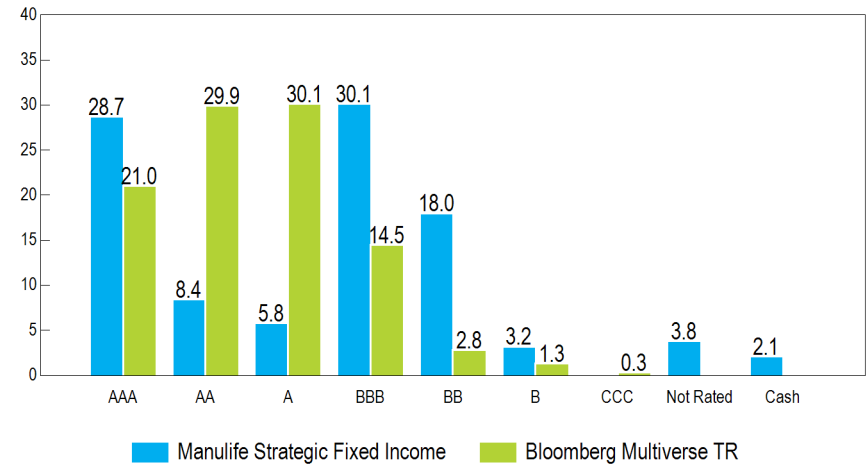
Portfolio Performance Summary

	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Manulife Strategic Fixed Income	0.2	4.5	0.6	--	--	1.2	Jul-19
Bloomberg Multiverse TR	-1.4	-0.8	-4.7	-0.9	0.4	-2.6	Jul-19
Multisector Bond MStar MF Median	0.7	4.4	1.0	2.2	3.1	1.1	Jul-19
Multisector Bond MStar MF Rank	79	48	64	--	--	47	Jul-19

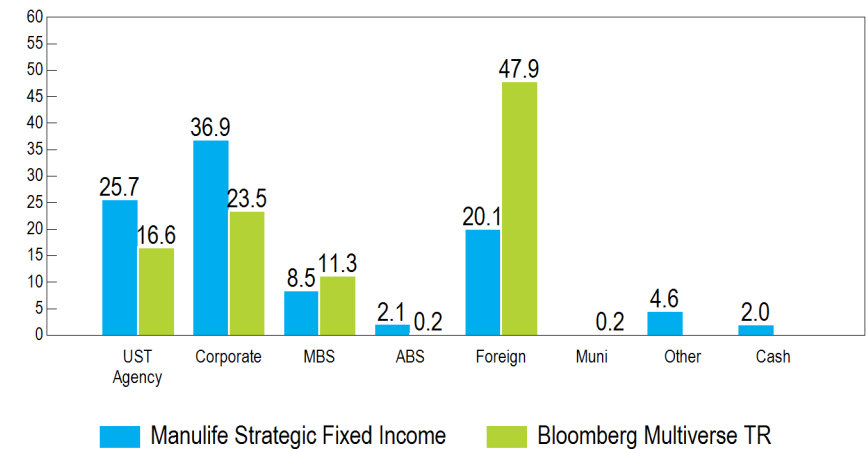
Manulife Strategic Fixed Income Characteristics vs. Bloomberg Multiverse TR

	Portfolio Q2-23	Index Q2-23	Portfolio Q1-23
Fixed Income Characteristics			
Yield to Maturity	5.6	4.1	5.2
Average Duration	5.1	6.5	4.8
Average Quality	BBB	A	BBB
Weighted Average Maturity	7.1	10.3	6.6

Credit Quality Allocation



Sector Allocation



Account Information

Account Name	Mesirow High Yield
Account Structure	Commingled Fund
Investment Style	Active
Inception Date	8/01/19
Account Type	US Fixed Income High Yield
Benchmark	Bloomberg US Corporate High Yield TR
Universe	eV US High Yield Fixed Inc Net

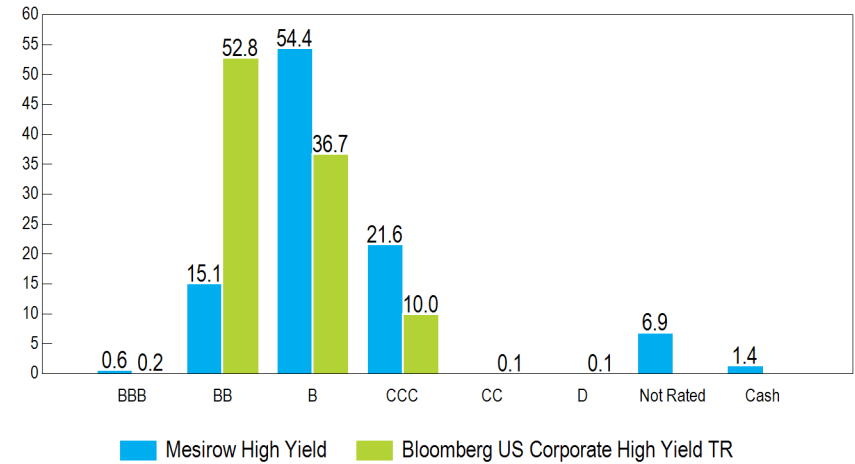
Portfolio Performance Summary

	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Mesirow High Yield	3.1	10.0	8.2	--	--	5.4	Aug-19
Bloomberg US Corporate High Yield TR	1.7	9.1	3.1	3.4	4.4	2.3	Aug-19
eV US High Yield Fixed Inc Net	1.4	8.3	3.2	3.2	4.1	2.2	Aug-19
Median							
eV US High Yield Fixed Inc Net Rank	4	10	2	--	--	2	Aug-19

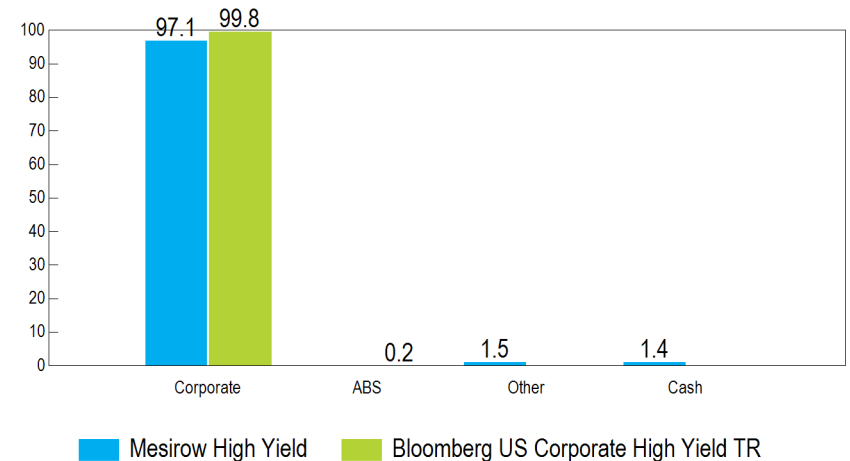
Mesirow High Yield Characteristics vs. Bloomberg US Corporate High Yield TR

	Portfolio Q2-23	Index Q2-23	Portfolio Q1-23
Fixed Income Characteristics			
Yield to Maturity		11.3	11.1
Average Duration		2.6	3.7
Average Quality		B	B
Weighted Average Maturity		4.5	4.6

Credit Quality Allocation



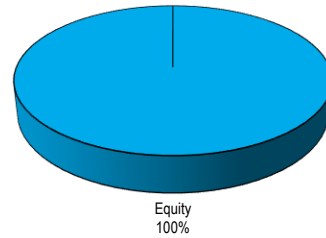
Sector Allocation



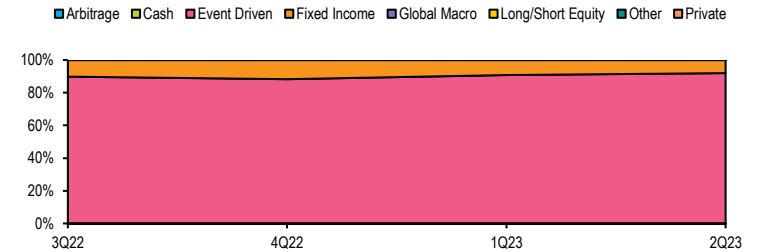
Account Information

Mandate:	Hedge Fund, Fund of Funds
Market Value:	\$14.1 M
Portfolio Manager:	Team
Location:	New York, NY
Inception Date:	10/1/2016
Account Type:	Limited Partnership
# of Investments:	21
Fee Schedule:	1.25% Management Fee; 10% Performance Fee; 7.5% Hurdle
Liquidity Constraints:	3 Year Lockup (4 years max) then quarterly with 95 days' notice

Instrument Allocation



Historical Strategy Allocations



Portfolio Performance Summary

	2Q23 (%)	1 YR (%)	3 YR (%)	5 YR (%)	Since 10/2016 (%)
EnTrust Special Opportunities Fund III, Ltd.	0.0	10.3	1.5	-2.0	3.2
HFRI Fund of Funds Composite Index (QTR)	1.7	-5.3	3.7	3.0	3.8

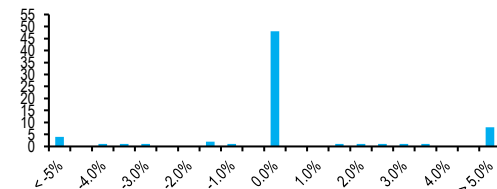
Geographic Exposure Allocation (%)	6/30/2023	3/31/2023	12/31/2022	9/30/2022
North America	58	60	58	59
Developed Europe	36	34	36	33
Developed Asia	1	2	1	1
Emerging Markets	4	5	5	7

Exposure Report (%)	6/30/2023	3/31/2023	12/31/2022	9/30/2022
Total Gross Exposure	95	97	96	98
Gross Long Exposure	95	97	96	98
Gross Short Exposure	0	0	0	0
Net Exposure	95	97	96	98

Top 5 Funds (%)

SeaWorld - Hill Path	20
MGM - Corvex	11
Deutsche Bank - Hudson Executive	10
J.G. Wentworth - Axar	8
Nestlé - EnTrust Global	7

Return Distribution



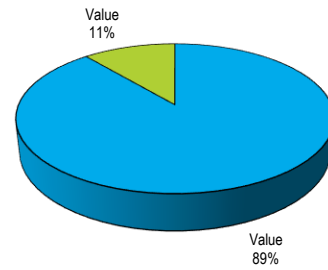
EnTrustPermal Special Opportunities Evergreen Fund, Ltd. | As of June 30, 2023

Account Information

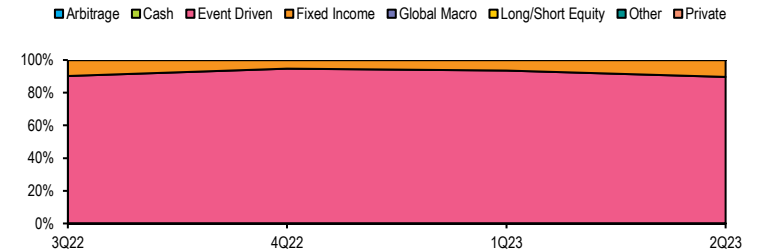
Mandate:	Hedge Fund, Return Seeking
Market Value:	\$18.9M
Portfolio Manager:	Team
Location:	New York, NY
Inception Date:	1/1/2019
Account Type:	Limited Partnership
# of Investments:	28
Fee Schedule:	1.25% Management Fee, 10% Performance Fee

Liquidity Constraints: Distributions from monetized investments will be recycled into the Fund, unless otherwise noted by the investor. Investors who opt out of the Fund (in part or in whole) following expiration of the 3 year Commitment Period, and any applicable successive renewals, will receive their pro rata distributions of underlying investments in the Fund, net of fees and expenses, as they are realized by the Investment Manager

Instrument Allocation



Historical Strategy Allocations



Geographic Exposure Allocation (%)	6/30/2023	3/31/2023	12/31/2022	9/30/2022
North America	75	73	75	76
Developed Europe	22	22	21	20
Developed Asia	3	4	3	3
Emerging Markets	1	1	1	2

Exposure Report (%)	6/30/2023	3/31/2023	12/31/2022	9/30/2022
Total Gross Exposure	11	97	104	96
Gross Long Exposure	11	93	97	95
Gross Short Exposure	0	4	7	2
Net Exposure	11	89	90	93

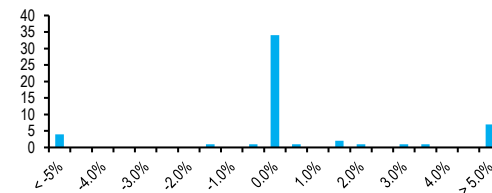
Portfolio Performance Summary

	2Q23 (%)	1 YR (%)	3 YR (%)	5 YR (%)	Since 1/2019 (%)
EnTrustPermal Special Opportunities Evergreen Fund, Ltd.	0.0	10.3	1.5	-2.0	2.2
HFRI Fund of Funds Composite Index (QTR)	1.5	3.6	5.0	3.3	3.8

Top 5 Funds (%)

SeaWorld II - Hill Path	10
StubHub - Declaration	7
Dollar Tree - Mantle Ridge	7
Masimo - Politan	7
MGM - Corvex	7

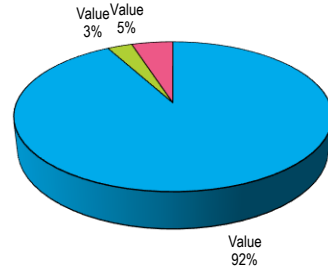
Return Distribution



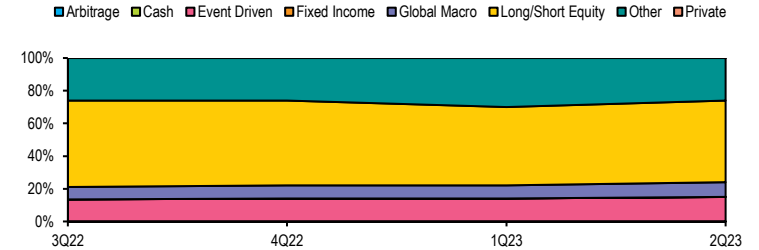
Account Information

Mandate:	Hedge Fund, Return Seeking
Market Value:	\$16.1 M
Portfolio Manager:	Team
Location:	Not Provided
Inception Date:	10/1/2018
Account Type:	Limited Partnership
# of Investments:	12
Fee Schedule:	0.5% Management Fee, 5% Performance Fee
Liquidity Constraints:	Quarterly with 65 days' notice

Instrument Allocation



Historical Strategy Allocations



Portfolio Performance Summary

	2Q23 (%)	1 YR (%)	3 YR (%)	5 YR (%)	Since 10/2018 (%)
Old Farm Partners Master Fund, L.P.	4.4	6.4	6.8	--	4.5
HFRI Fund of Funds Composite Index	1.4	3.6	5.0	3.3	3.4

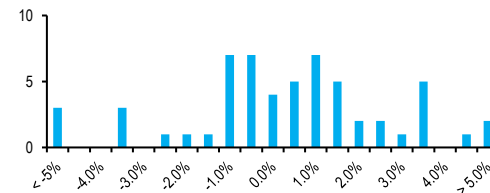
Top 5 Funds (%)

Divisar	9
Crake	9
Sio	7
Flat Footed	7
Prospect	6

Geographic Exposure Allocation (%)	6/30/2023	3/31/2023	12/31/2022	9/30/2022
North America	75	74	72	75
Developed Europe	20	22	22	22
Emerging Markets	3	2	3	2
Developed Asia	2	2	3	1

Exposure Report (%)	6/30/2023	3/31/2023	12/31/2022	9/30/2022
Total Gross Exposure	137	127	101	113
Gross Long Exposure	93	88	68	74
Gross Short Exposure	44	39	33	39
Net Exposure	49	49	35	35

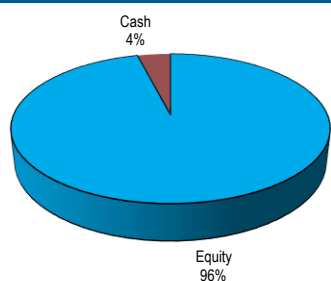
Return Distribution



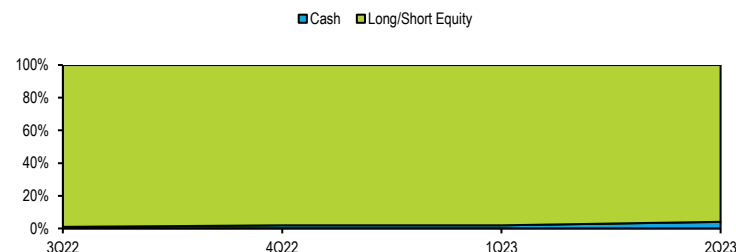
Account Information

Mandate:	Hedge Fund, Return Seeking
Market Value:	\$56.8 M
Portfolio Manager:	Team
Location:	Not Provided
Inception Date:	12/1/2018
Account Type:	Limited Partnership
# of Investments:	Not Provided
Fee Schedule:	0.35% Management Fee, 10% Performance Fee
Liquidity Constraints:	Quarterly with 45 days' notice

Instrument Allocation



Historical Strategy Allocations



Portfolio Performance Summary

	2Q23 (%)	1 YR (%)	3 YR (%)	5 YR (%)	Since 12/2018 (%)
ABS Emerging Markets	3.7	5.6	5.2	--	5.8
MSCI Emerging Markets	0.9	1.7	2.3	0.9	2.4

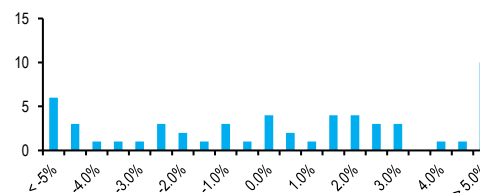
Top 5 Funds (%)

Not Provided

Geographic Exposure Allocation (%)	6/30/2023	3/31/2023	12/31/2022	9/30/2022
Emerging Markets	96	98	98	98
North America	0	0	0	1
Developed Europe	0	0	0	1
Developed Asia	0	0	0	1

Exposure Report (%)	6/30/2023	3/31/2023	12/31/2022	9/30/2022
Total Gross Exposure	122	121	117	116
Gross Long Exposure	94	93	93	90
Gross Short Exposure	29	28	24	26
Net Exposure	65	65	70	64

Return Distribution

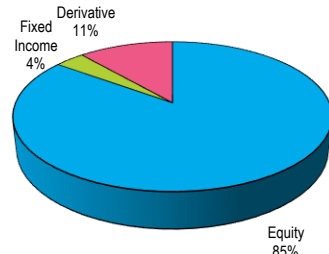


ABS Offshore SPC - Global Segregated Portfolio | As of June 30, 2023

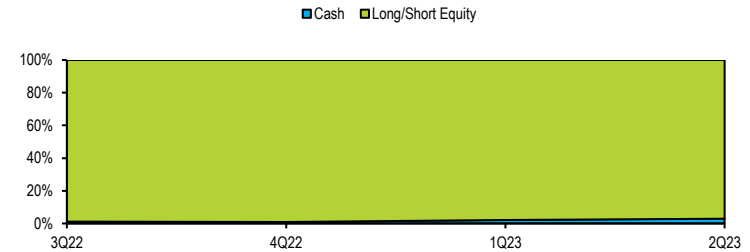
Account Information

Mandate:	Hedge Fund, Return Seeking
Market Value:	\$31.0 M
Portfolio Manager:	Team
Location:	Greenwich, CT
Inception Date:	8/31/2010
Account Type:	Limited Partnership
# of Investments:	Not Provided
Fee Schedule:	1.00% Management Fee, 5% Performance Fee
Liquidity Constraints:	Quarterly with 45 days' notice

Instrument Allocation



Historical Strategy Allocations



Portfolio Performance Summary

	2Q23 (%)	1 YR (%)	3 YR (%)	5 YR (%)	Since 8/2010 (%)
ABS Offshore SPC - Global Segregated Portfolio	1.6	5.1	4.4	3.6	4.9
HFRI Equity Hedge (Total) Index	3.1	7.6	9.0	5.5	5.4

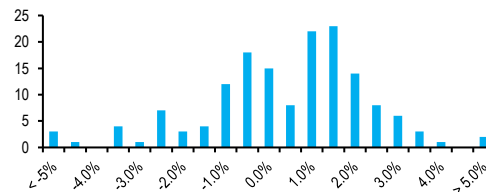
Top 5 Funds (%)

Seligman Tech	5
Medina	5
Azora	5
Sagil	5
Atreides	5

Geographic Exposure Allocation (%)	6/30/2023	3/31/2023	12/31/2022	9/30/2022
Emerging Markets	12	12	12	14
North America	74	73	73	71
Developed Europe	10	10	10	9
Developed Asia	3	5	6	6

Exposure Report (%)	6/30/2023	3/31/2023	12/31/2022	9/30/2022
Total Gross Exposure	143	145	130	130
Gross Long Exposure	94	95	84	84
Gross Short Exposure	50	50	45	47
Net Exposure	44	44	38	37

Return Distribution



Annual Investment Expense Analysis				
As Of June 30, 2023				
Name	Fee Schedule	Market Value	Estimated Fee Value	Estimated Fee
Domestic Equity Assets		\$231,487,482	\$962,042	0.42%
Rhumblin Russell 1000 Value	0.05% of First 25.0 Mil, 0.04% of Next 25.0 Mil, 0.03% Thereafter	\$41,332,680	\$19,033	0.05%
Rhumblin Russell 1000 Growth	0.05% of First 25.0 Mil, 0.04% of Next 25.0 Mil, 0.03% Thereafter	\$42,842,837	\$19,637	0.05%
Fisher Midcap Value	0.65% of Assets	\$53,352,773	\$346,793	0.65%
Newton Small Cap Growth	0.45% of Assets	\$47,945,761	\$215,756	0.45%
Vulcan Partners Small Cap Value	0.83% of Assets	\$15,887,261	\$131,864	0.83%
Systematic Small Cap Free Cash Flow	0.76% of Assets	\$30,126,170	\$228,959	0.76%
International Developed Market Equity Assets		\$42,356,432	\$259,760	0.61%
Aristotle International Equity	0.49% of Assets	\$22,274,447	\$109,145	0.49%
Walter Scott International Equity	0.75% of Assets	\$20,081,984	\$150,615	0.75%
International Emerging Market Equity Assets		\$106,095,635	\$472,585	0.45%
ABS Emerging Markets	Performance-based 0.35 and 0.10	\$56,757,769	\$201,226	0.35%
Driehaus Emerging Markets Growth	0.55% of Assets	\$49,337,867	\$271,358	0.55%
Global Equity Assets		\$147,759,752	\$935,614	0.63%
First Eagle Global Value Fund	0.75% of Assets	\$26,050,619	\$195,380	0.75%
Kopernik Global All Cap Fund	0.80% of First 50.0 Mil, 0.75% of Next 150.0 Mil, 0.70% of Next 250.0 Mil, 0.65% of Next 350.0 Mil	\$35,056,694	\$280,454	0.80%
Lee Munder Global Multi-Cap Strategy	0.45% of Assets	\$40,089,227	\$180,402	0.45%

Name	Fee Schedule	Market Value	Estimated Fee Value	Estimated Fee
Wellington Durable Enterprises, L.P.	0.60% of Assets	\$46,563,212	\$279,379	0.60%
Core Fixed Income		\$92,503,777	\$131,164	0.14%
Lord Abbett Short Duration Credit Trust II	0.17% of Assets	\$38,543,011	\$65,523	0.17%
Lord Abbett Core Fixed Income Trust II	0.15% of Assets	\$40,793,962	\$61,191	0.15%
Rhumblin TIPS Trust	0.04% of First 5.0 Mil, 0.03% Thereafter	\$13,166,804	\$4,450	0.03%
Value Added Fixed Income		\$82,025,894	\$304,540	0.37%
Eaton Vance High Yield	0.42% of Assets	\$12,164,837	\$51,092	0.42%
First Eagle Bank Loan Select Fund	0.40% of Assets	\$11,163,367	\$44,653	0.40%
Manulife Strategic Fixed Income	0.35% of Assets	\$34,849,016	\$121,972	0.35%
Mesirow High Yield	0.40% of Assets	\$15,276,196	\$61,105	0.40%
Eaton Vance EMD Opportunities Fund	0.30% of Assets	\$8,572,479	\$25,717	0.30%
Core Real Assets		\$75,421,446		
Non-Core Real Assets		\$51,163,553		
Total		\$702,228,972	\$3,065,704	0.44%

Total Retirement Association | As of June 30, 2023

Private Equity	Commitment	Total Contributions	Total Distributions	Value
Ascend Ventures II, L.P.	2,500,000	2,327,488	997,335	2,651
Ascent Venture Partners V, L.P.	5,000,000	5,004,731	4,494,116	3,172,565
Audax Mezzanine Fund IV, L.P.	10,000,000	8,749,944	7,641,821	3,152,896
Charlesbank Technology Opportunities Fund, L.P.	12,000,000	8,655,545	1,999,703	16,737,583
Ironsides Opportunities Fund II	20,000,000	3,233,141	127,791	3,184,230
Ironsides Co-Investment Fund VI, L.P.	13,000,000	12,672,172	339,337	14,428,648
DN Partners II, L.P.	5,000,000	2,375,841	23,571	2,602,733
Euro Choice V, L.P.	6,078,291	5,919,759	6,026,656	2,918,403
FS Equity Partners VIII, L.P.	12,000,000	9,724,864	324,324	15,696,222
Globespan Capital Partners V, L.P.	5,000,000	4,852,500	9,424,938	2,649,119
HarbourVest Partners Co-Investment Fund V, L.P.	12,000,000	9,300,000	1,912,808	14,608,915
HarbourVest Partners Co-Investment Fund VI, L.P.	13,000,000	4,550,000	0	4,720,972
Ironsides Direct Investment Fund V, L.P.	12,000,000	11,870,897	3,152,053	18,682,210
Kohlberg Investors IX	10,000,000	7,851,817	294,108	10,283,545
Landmark Equity Partners XIV, L.P.	6,000,000	5,841,745	7,419,929	449,881
Kohlberg Investors IX	10,000,000	7,851,817	294,108	10,283,545
Landmark Equity Partners XIV, L.P.	6,000,000	5,841,745	7,419,929	449,881
Leeds Equity Partners V, L.P.	2,500,000	3,525,207	5,594,639	254,662
Lexington Capital Partners VII, L.P.	10,000,000	8,958,787	13,328,863	1,219,794
LLR Equity Partners V, L.P.	12,000,000	11,640,000	3,986,780	16,467,717
Mesirow Financial Capital Partners IX, L.P.	4,000,000	3,840,731	2,021,056	79,293
Ridgmont Equity Partners III, L.P.	12,000,000	12,910,739	7,021,515	16,516,097
Ridgmont Equity Partners IV, L.P.	13,000,000	1,008,678	0	1,116,479
Rimco Production Company, Inc	2,000,000	2,000,000	7,651,066	1
Searchlight Capital III, L.P.	12,000,000	8,643,353	3,985,260	10,498,998
Siguler Guff Distressed Opportunities Fund III, L.P.	6,000,000	5,820,000	9,206,138	467,329
Summit Partners Growth Equity Fund IX, L.P.	10,000,000	11,704,000	12,558,753	15,036,150
Summit Partners Venture Capital Fund V	10,000,000	5,362,946	0	5,250,936
Summit Partners Growth Equity Fund XI, L.P.	13,000,000	2,367,271	0	2,487,566
TRG Growth Partnership II, L.P.	7,500,000	7,366,152	8,989,845	495,617
Trilantic Capital Partners VI (North America), L.P.	12,000,000	11,049,876	1,184,012	14,188,442

Note: The value is based on March 31, 2023 FMV.

Total Retirement Association | As of June 30, 2023

Private Equity	Commitment	Total Contributions	Total Distributions	Value
Waud Capital Partners V, L.P.	10,000,000	9,863,595	52,149	15,064,698
Wellspring Capital Partners VI, L.P.	12,000,000	11,625,319	2,594,018	15,950,404
Total Plymouth County - PE	307,578,291	234,310,661	130,066,620	239,118,182

Real Assets	Commitment	Total Contributions	Total Distributions	Value
Basalt Infrastructure Partners II	10,000,000	9,416,866	5,845,746	7,097,180
BlackRock Global Renewable Power Infrastructure Fund III, L.P.	10,000,000	4,784,225	282,545	5,107,594
BTG Pactual Global Timberland Resources Fund, LLC	5,043,536	5,043,536	1,869,240	1,439,495
Climate Adaptive Infrastructure Fund I	10,000,000	3,560,084	372,570	4,057,217
Global Infrastructure Partners III, L.P.	10,000,000	10,243,735	4,815,360	10,391,372
Global Infrastructure Partners IV, L.P.	10,000,000	7,843,195	45,433	8,153,921
IFM Global Infrastructure (U.S.), L.P.	60,000,000	60,000,000	3,422,216	75,421,446
ISQ Global Infrastructure Fund III (USTE), L.P.	10,000,000	2,279,628	1,223	2,363,977
JPMorgan Global Maritime Investment	10,000,000	10,034,375	5,459,408	3,319,035
Domain Timbervest Partners III, L.P.	5,000,000	5,000,000	4,081,126	3,655,553
BlackRock Global Infrastructure Fund IV	10,000,000	656,206	0	558,331
Total Plymouth County - RA	140,043,536	109,444,984	20,349,121	114,467,941

Real Estate	Commitment	Total Contributions	Total Distributions	Value
1921 Realty, Inc.	5,000,000	5,378,294	0	542,385
AEW Partners IX, L.P.	10,000,000	6,995,885	111	7,477,079
AEW Partners Real Estate Fund VIII, L.P.	25,000,000	23,989,589	29,026,736	6,372,926
Berkshire Value Fund V, L.P.	9,000,000	6,283,181	1,058,371	5,893,196
Carlyle Realty Partners VIII, L.P.	18,000,000	15,241,627	11,005,998	10,128,920
DSF Capital Partners IV, L.P.	5,000,000	5,000,000	7,406,550	0
DSF Multi-Family Real Estate Fund III, L.P.	15,000,000	15,079,717	22,968,488	4,332,975
JPMorgan Strategic Property Fund	27,000,000	27,000,000	6,558,368	32,366,386
PCCP Equity IX, L.P.	10,000,000	6,119,943	0	6,358,920
Real Estate International Partnership Fund I, L.P.	15,000,000	12,677,141	11,372,161	634,320
Rockpoint Real Estate Fund VI, L.P.	9,000,000	7,270,725	1,091,059	7,712,054
TA Realty Core Property Fund, L.P.	60,000,000	62,829,005	10,988,205	74,558,902
TerraCap Partners V, L.P.	10,000,000	10,398,080	1,045,339	10,583,174
Total Plymouth County - RE	218,000,000	204,263,187	102,521,386	166,961,237

Note: The data for IFM Global Infrastructure, JPMorgan Strategic Property, and TA Realty is as of June 30, 2023. All other values are based on March 31, 2023 FMV.

Cash Flow Summary
Month Ending June 30, 2023

	Beginning Market Value	Contributions	Withdrawals	Net Cash Flow	Ending Market Value
1921 Realty, Inc	\$541,326	\$0	\$0	\$0	\$542,385
ABS Emerging Markets	\$54,243,392	\$0	\$0	\$0	\$56,757,769
ABS Offshore SPC - Global Segregated Portfolio	\$35,500,486	\$0	-\$5,025,839	-\$5,025,839	\$31,006,511
AEW Partners Real Estate Fund IX, L.P.	\$7,467,816	\$64,373	\$0	\$64,373	\$7,541,452
AEW Partners Real Estate VIII	\$6,330,592	\$0	-\$325,755	-\$325,755	\$6,047,171
Aristotle International Equity	\$21,332,816	\$0	-\$9,095	-\$9,095	\$22,274,447
Ascend Ventures II	\$0	\$0	\$0	\$0	\$0
Ascent Ventures IV	\$0	\$0	\$0	\$0	\$0
Ascent Ventures V	\$3,154,566	\$0	\$0	\$0	\$3,172,565
Audax Mezzanine Debt IV	\$3,195,096	\$0	\$0	\$0	\$3,296,403
Basalt Infrastructure Partners II	\$6,811,895	\$0	\$0	\$0	\$7,097,180
Berkshire Value Fund V	\$6,403,223	\$0	\$0	\$0	\$5,893,196
BlackRock Global Infrastructure Fund IV, L.P.	\$903,213	\$926,614	\$0	\$926,614	\$1,774,100
BlackRock Global Renewable Power Infrastructure Fund III, L.P.	\$5,432,003	\$540,666	\$0	\$540,666	\$6,150,906
BTG Pactual Global Timberland Resources	\$1,438,097	\$0	\$0	\$0	\$1,439,495
Carlyle Realty Partners VIII	\$10,210,612	\$0	-\$308,265	-\$308,265	\$9,820,655
Cash	\$10,887,089	\$13,030,036	-\$15,981,422	-\$2,951,386	\$7,935,703
Charles River Partnership XI	\$0	\$0	\$0	\$0	\$0
Charlesbank Technology Opportunities Fund	\$15,643,537	\$104,121	\$0	\$104,121	\$16,841,704
Climate Adaptive Infrastructure Fund	\$3,609,092	\$1,149,789	\$0	\$1,149,789	\$5,207,006
DN Partners II, LP	\$2,375,245	\$0	\$0	\$0	\$2,551,640
Driehaus Emerging Markets Growth	\$46,983,570	\$0	-\$22,613	-\$22,613	\$49,337,867

	Beginning Market Value	Contributions	Withdrawals	Net Cash Flow	Ending Market Value
DSF Multi-Family Real Estate Fund III	\$4,200,452	\$0	\$0	\$0	\$4,318,770
Eaton Vance EMD Opportunities Fund	\$8,300,360	\$0	-\$2,143	-\$2,143	\$8,572,479
Eaton Vance High Yield	\$11,985,568	\$0	-\$4,258	-\$4,258	\$12,164,837
Entrust Special Opportunities Fund III, Ltd.	\$14,429,772	\$0	-\$335,366	-\$335,366	\$14,094,406
EnTrustPermal Special Opportunities Evergreen Fund, Ltd.	\$18,939,967	\$0	\$0	\$0	\$18,939,967
Euro Choice V Programme	\$2,778,281	\$0	\$0	\$0	\$2,918,403
First Eagle Bank Loan Select Fund	\$10,957,141	\$0	-\$3,721	-\$3,721	\$11,163,367
First Eagle Global Value Fund	\$24,919,250	\$0	-\$16,282	-\$16,282	\$26,050,619
Fisher Midcap Value	\$48,399,738	\$0	-\$28,899	-\$28,899	\$53,352,773
FS Equity Partners VIII, L.P.	\$15,365,575	\$0	\$0	\$0	\$15,696,222
Global Infrastructure Partners III	\$10,200,181	\$0	\$0	\$0	\$10,359,145
Global Infrastructure Partners IV, L.P.	\$8,060,570	\$0	-\$124,550	-\$124,550	\$8,029,371
Globespan Capital V	\$2,653,803	\$0	-\$91,081	-\$91,081	\$2,558,038
HarbourVest Partners Co-Investment Fund VI, L.P.	\$4,301,949	\$1,950,000	\$0	\$1,950,000	\$6,670,972
HarbourVest Partners Co-Investment V	\$14,377,048	\$0	\$0	\$0	\$14,148,427
IFM Global Infrastructure	\$73,463,030	\$0	\$0	\$0	\$75,421,446
Ironsides Co-Investment Fund VI, L.P.	\$14,151,794	\$0	-\$1,023,990	-\$1,023,990	\$13,404,658
Ironsides Direct Investment Fund V, L.P.	\$18,458,056	\$0	\$0	\$0	\$18,682,210
Ironsides Opportunities Fund II, L.P.	\$6,006,969	\$0	\$0	\$0	\$6,220,112
ISQ Global Infrastructure Fund III (USTE), L.P.	\$2,862,153	\$0	\$0	\$0	\$2,899,636
JP Morgan Global Maritime Investment	\$4,621,161	\$0	\$0	\$0	\$4,621,161
JPMorgan Strategic Property	\$32,450,014	\$0	-\$26,972	-\$26,972	\$32,366,386
Kohlberg Investors IX	\$10,398,164	\$0	\$0	\$0	\$10,794,894
Kopernik Global All Cap Fund	\$34,961,041	\$0	-\$23,371	-\$23,371	\$35,056,694

	Beginning Market Value	Contributions	Withdrawals	Net Cash Flow	Ending Market Value
Landmark Equity Partners XIV	\$442,942	\$0	-\$24,686	-\$24,686	\$425,195
Lee Munder Global Multi-Cap Strategy	\$38,213,632	\$0	-\$15,033	-\$15,033	\$40,089,227
Leeds Equity Partners IV	\$0	\$0	\$0	\$0	\$0
Leeds Equity Partners V	\$251,649	\$0	\$0	\$0	\$254,662
Lexington Capital Partners VII	\$1,193,371	\$0	-\$14,756	-\$14,756	\$1,146,833
LLR Equity Partners V, LP.	\$16,081,297	\$0	\$0	\$0	\$16,467,717
Lord Abbett Core Fixed Income Trust II	\$40,911,750	\$0	-\$5,099	-\$5,099	\$40,793,962
Lord Abbett Short Duration Credit Trust II	\$38,653,239	\$0	-\$5,460	-\$5,460	\$38,543,011
Manulife Strategic Fixed Income	\$34,587,239	\$0	-\$10,164	-\$10,164	\$34,849,016
Mesirow Financial Capital Partners IX, LP	\$78,800	\$0	\$0	\$0	\$79,293
Mesirow Financial International Real Estate Fund I	\$661,586	\$0	\$0	\$0	\$634,320
Mesirow High Yield	\$15,002,963	\$0	-\$5,092	-\$5,092	\$15,276,196
Newton Small Cap Growth	\$44,628,097	\$0	-\$17,980	-\$17,980	\$47,945,761
Old Farm Partners Master Fund, L.P.	\$15,634,929	\$0	-\$17,663	-\$17,663	\$16,135,415
PCCP Equity IX, L.P.	\$6,447,254	\$600,000	\$0	\$600,000	\$6,958,920
Rhumblin Russell 1000 Growth	\$44,868,884	\$0	-\$5,001,636	-\$5,001,636	\$42,842,837
Rhumblin Russell 1000 Value	\$41,632,401	\$0	-\$3,001,586	-\$3,001,586	\$41,332,680
Rhumblin TIPS Trust	\$15,222,726	\$0	-\$2,000,371	-\$2,000,371	\$13,166,804
Ridgemont Equity Partners III, L.P.	\$16,867,336	\$0	-\$50,536	-\$50,536	\$16,465,561
RIMCO Royalty Partners, LP	\$1	\$0	\$0	\$0	\$1
Rockpoint Real Estate Fund VI, L.P.	\$7,671,408	\$22,173	\$0	\$22,173	\$7,734,227
Searchlight Capital III, L.P.	\$10,510,009	\$0	\$0	\$0	\$11,117,881
Siguler Guff Distressed Opportunities Fund III, LP	\$443,577	\$0	-\$33,566	-\$33,566	\$433,763
Summit Partners Growth Equity Fund IX	\$14,836,796	\$0	\$0	\$0	\$15,113,150

Total Retirement Association | As of June 30, 2023

	Beginning Market Value	Contributions	Withdrawals	Net Cash Flow	Ending Market Value
Summit Partners Growth Equity Fund XI	\$2,643,284	\$479,438	\$0	\$479,438	\$3,166,171
Summit Partners Venture Capital Fund V	\$5,501,028	\$0	-\$444,178	-\$444,178	\$4,992,374
Systematic Small Cap Free Cash Flow	\$27,917,043	\$0	-\$19,080	-\$19,080	\$30,126,170
TA Realty Core Property Fund, L.P.	\$75,454,838	\$0	\$0	\$0	\$74,558,902
TerraCap Partners V, L.P	\$10,635,469	\$0	\$0	\$0	\$10,583,174
Timbervest Partners III, LP	\$3,648,200	\$0	-\$70,000	-\$70,000	\$3,585,553
TRG Growth Partnership II	\$479,471	\$0	\$0	\$0	\$495,617
Trilantic Capital Partners VI, L.P.	\$14,207,445	\$796,148	\$0	\$796,148	\$14,984,590
Vulcan Partners Small Cap Value	\$14,998,362	\$0	-\$10,989	-\$10,989	\$15,887,261
Walter Scott International Equity	\$19,528,833	\$0	-\$12,551	-\$12,551	\$20,081,984
Waud Capital Partners V	\$14,907,938	\$0	\$0	\$0	\$15,237,624
Wellington Durable Enterprises, L.P.	\$43,598,038	\$0	-\$23,282	-\$23,282	\$46,563,212
Wellspring Capital Partners VI	\$15,946,152	\$0	\$0	\$0	\$16,126,204
Total	\$1,294,013,691	\$19,663,358	-\$34,137,332	-\$14,473,973	\$1,317,388,416

Cash Flow Summary

From April 01, 2023 through June 30, 2023

	Beginning Market Value	Contributions	Withdrawals	Net Cash Flow	Ending Market Value
1921 Realty, Inc	\$541,326	\$0	\$0	\$0	\$542,385
ABS Emerging Markets	\$54,727,404	\$0	\$0	\$0	\$56,757,769
ABS Offshore SPC - Global Segregated Portfolio	\$35,424,688	\$0	-\$5,084,954	-\$5,084,954	\$31,006,511
AEW Partners Real Estate Fund IX, L.P.	\$7,467,816	\$64,373	\$0	\$64,373	\$7,541,452
AEW Partners Real Estate VIII	\$6,330,592	\$0	-\$325,755	-\$325,755	\$6,047,171
Aristotle International Equity	\$21,235,406	\$0	-\$26,802	-\$26,802	\$22,274,447
Ascend Ventures II	\$0	\$0	\$0	\$0	\$0
Ascent Ventures IV	\$0	\$0	\$0	\$0	\$0
Ascent Ventures V	\$3,154,566	\$0	\$0	\$0	\$3,172,565
Audax Mezzanine Debt IV	\$3,051,590	\$253,655	-\$110,148	\$143,507	\$3,296,403
Basalt Infrastructure Partners II	\$6,811,895	\$0	\$0	\$0	\$7,097,180
Berkshire Value Fund V	\$6,403,223	\$0	\$0	\$0	\$5,893,196
BlackRock Global Infrastructure Fund IV, L.P.	\$614,058	\$1,215,769	\$0	\$1,215,769	\$1,774,100
BlackRock Global Renewable Power Infrastructure Fund III, L.P.	\$4,929,357	\$1,043,312	\$0	\$1,043,312	\$6,150,906
BTG Pactual Global Timberland Resources	\$1,438,097	\$0	\$0	\$0	\$1,439,495
Carlyle Realty Partners VIII	\$10,210,612	\$0	-\$308,265	-\$308,265	\$9,820,655
Cash	\$8,995,600	\$38,995,800	-\$40,055,697	-\$1,059,897	\$7,935,703
Charles River Partnership XI	\$0	\$0	\$0	\$0	\$0
Charlesbank Technology Opportunities Fund	\$15,643,537	\$104,121	\$0	\$104,121	\$16,841,704
Climate Adaptive Infrastructure Fund	\$3,609,092	\$1,149,789	\$0	\$1,149,789	\$5,207,006
DN Partners II, LP	\$2,426,338	\$0	-\$51,093	-\$51,093	\$2,551,640

	Beginning Market Value	Contributions	Withdrawals	Net Cash Flow	Ending Market Value
Driehaus Emerging Markets Growth	\$48,211,899	\$0	-\$66,119	-\$66,119	\$49,337,867
DSF Multi-Family Real Estate Fund III	\$4,214,656	\$0	-\$14,205	-\$14,205	\$4,318,770
Eaton Vance EMD Opportunities Fund	\$8,184,029	\$0	-\$6,266	-\$6,266	\$8,572,479
Eaton Vance High Yield	\$12,044,384	\$0	-\$12,696	-\$12,696	\$12,164,837
Entrust Special Opportunities Fund III, Ltd.	\$14,429,772	\$0	-\$335,366	-\$335,366	\$14,094,406
EnTrustPermal Special Opportunities Evergreen Fund, Ltd.	\$18,939,967	\$0	\$0	\$0	\$18,939,967
Euro Choice V Programme	\$2,778,281	\$0	\$0	\$0	\$2,918,403
First Eagle Bank Loan Select Fund	\$10,830,299	\$0	-\$11,036	-\$11,036	\$11,163,367
First Eagle Global Value Fund	\$25,238,379	\$0	-\$47,937	-\$47,937	\$26,050,619
Fisher Midcap Value	\$56,112,073	\$0	-\$5,084,779	-\$5,084,779	\$53,352,773
FS Equity Partners VIII, L.P.	\$15,365,575	\$0	\$0	\$0	\$15,696,222
Global Infrastructure Partners III	\$10,232,408	\$38,063	-\$70,290	-\$32,227	\$10,359,145
Global Infrastructure Partners IV, L.P.	\$8,060,570	\$0	-\$124,550	-\$124,550	\$8,029,371
Globespan Capital V	\$2,653,803	\$0	-\$91,081	-\$91,081	\$2,558,038
HarbourVest Partners Co-Investment Fund VI, L.P.	\$4,301,949	\$1,950,000	\$0	\$1,950,000	\$6,670,972
HarbourVest Partners Co-Investment V	\$14,837,536	\$0	-\$460,488	-\$460,488	\$14,148,427
IFM Global Infrastructure	\$73,563,508	\$0	\$0	\$0	\$75,421,446
Ironsides Co-Investment Fund VI, L.P.	\$14,151,794	\$0	-\$1,023,990	-\$1,023,990	\$13,404,658
Ironsides Direct Investment Fund V, L.P.	\$18,458,056	\$0	\$0	\$0	\$18,682,210
Ironsides Opportunities Fund II, L.P.	\$2,971,086	\$3,035,883	\$0	\$3,035,883	\$6,220,112
ISQ Global Infrastructure Fund III (USTE), L.P.	\$2,326,494	\$535,659	\$0	\$535,659	\$2,899,636
JP Morgan Global Maritime Investment	\$4,621,161	\$0	\$0	\$0	\$4,621,161
JPMorgan Strategic Property	\$33,359,987	\$0	-\$557,944	-\$557,944	\$32,366,386
Kohlberg Investors IX	\$9,886,815	\$511,349	\$0	\$511,349	\$10,794,894

	Beginning Market Value	Contributions	Withdrawals	Net Cash Flow	Ending Market Value
Kopernik Global All Cap Fund	\$35,288,872	\$0	-\$70,600	-\$70,600	\$35,056,694
Landmark Equity Partners XIV	\$442,942	\$0	-\$24,686	-\$24,686	\$425,195
Lee Munder Global Multi-Cap Strategy	\$37,729,431	\$0	-\$43,710	-\$43,710	\$40,089,227
Leeds Equity Partners IV	\$0	\$0	-\$8,989	-\$8,989	\$0
Leeds Equity Partners V	\$251,649	\$0	\$0	\$0	\$254,662
Lexington Capital Partners VII	\$1,251,576	\$0	-\$72,961	-\$72,961	\$1,146,833
LLR Equity Partners V, LP.	\$16,081,297	\$0	\$0	\$0	\$16,467,717
Lord Abbett Core Fixed Income Trust II	\$41,147,326	\$0	-\$15,386	-\$15,386	\$40,793,962
Lord Abbett Short Duration Credit Trust II	\$43,541,947	\$0	-\$5,017,140	-\$5,017,140	\$38,543,011
Manulife Strategic Fixed Income	\$41,753,641	\$0	-\$7,030,426	-\$7,030,426	\$34,849,016
Mesirow Financial Capital Partners IX, LP	\$78,800	\$0	\$0	\$0	\$79,293
Mesirow Financial International Real Estate Fund I	\$661,586	\$0	\$0	\$0	\$634,320
Mesirow High Yield	\$14,816,668	\$0	-\$15,119	-\$15,119	\$15,276,196
Newton Small Cap Growth	\$45,322,353	\$0	-\$51,597	-\$51,597	\$47,945,761
Old Farm Partners Master Fund, L.P.	\$15,473,403	\$0	-\$30,558	-\$30,558	\$16,135,415
PCCP Equity IX, L.P.	\$6,447,254	\$600,000	\$0	\$600,000	\$6,958,920
Rhumblin Russell 1000 Growth	\$42,492,302	\$0	-\$5,004,979	-\$5,004,979	\$42,842,837
Rhumblin Russell 1000 Value	\$47,688,830	\$0	-\$8,005,004	-\$8,005,004	\$41,332,680
Rhumblin TIPS Trust	\$17,391,974	\$0	-\$4,001,270	-\$4,001,270	\$13,166,804
Ridgemont Equity Partners III, L.P.	\$16,867,336	\$0	-\$50,536	-\$50,536	\$16,465,561
RIMCO Royalty Partners, LP	\$1	\$0	\$0	\$0	\$1
Rockpoint Real Estate Fund VI, L.P.	\$7,671,408	\$22,173	\$0	\$22,173	\$7,734,227
Searchlight Capital III, L.P.	\$9,891,126	\$618,883	\$0	\$618,883	\$11,117,881
Siguler Guff Distressed Opportunities Fund III, LP	\$443,577	\$0	-\$33,566	-\$33,566	\$433,763

	Beginning Market Value	Contributions	Withdrawals	Net Cash Flow	Ending Market Value
Summit Partners Growth Equity Fund IX	\$14,759,796	\$77,000	\$0	\$77,000	\$15,113,150
Summit Partners Growth Equity Fund XI	\$2,444,117	\$678,605	\$0	\$678,605	\$3,166,171
Summit Partners Venture Capital Fund V	\$5,315,412	\$185,616	-\$444,178	-\$258,562	\$4,992,374
Systematic Small Cap Free Cash Flow	\$28,837,278	\$0	-\$54,576	-\$54,576	\$30,126,170
TA Realty Core Property Fund, L.P.	\$76,217,008	\$0	-\$762,170	-\$762,170	\$74,558,902
TerraCap Partners V, L.P.	\$10,635,469	\$0	\$0	\$0	\$10,583,174
Timbervest Partners III, LP	\$3,648,200	\$0	-\$70,000	-\$70,000	\$3,585,553
TRG Growth Partnership II	\$479,471	\$0	\$0	\$0	\$495,617
Trilantic Capital Partners VI, L.P.	\$14,207,445	\$796,148	\$0	\$796,148	\$14,984,590
Vulcan Partners Small Cap Value	\$15,119,259	\$0	-\$31,748	-\$31,748	\$15,887,261
Walter Scott International Equity	\$19,435,466	\$0	-\$71,568	-\$71,568	\$20,081,984
Waud Capital Partners V	\$14,735,012	\$234,744	-\$61,818	\$172,926	\$15,237,624
Wellington Durable Enterprises, L.P.	\$44,167,270	\$0	-\$67,823	-\$67,823	\$46,563,212
Wellspring Capital Partners VI	\$15,946,152	\$0	\$0	\$0	\$16,126,204
Total	\$1,317,472,334	\$52,110,941	-\$84,909,868	-\$32,798,926	\$1,317,388,416

**Private Markets 2023 Q1
Performance Update**

The purpose of this document is to offer a review of the Plymouth County Retirement Association’s aggregate private market investments.

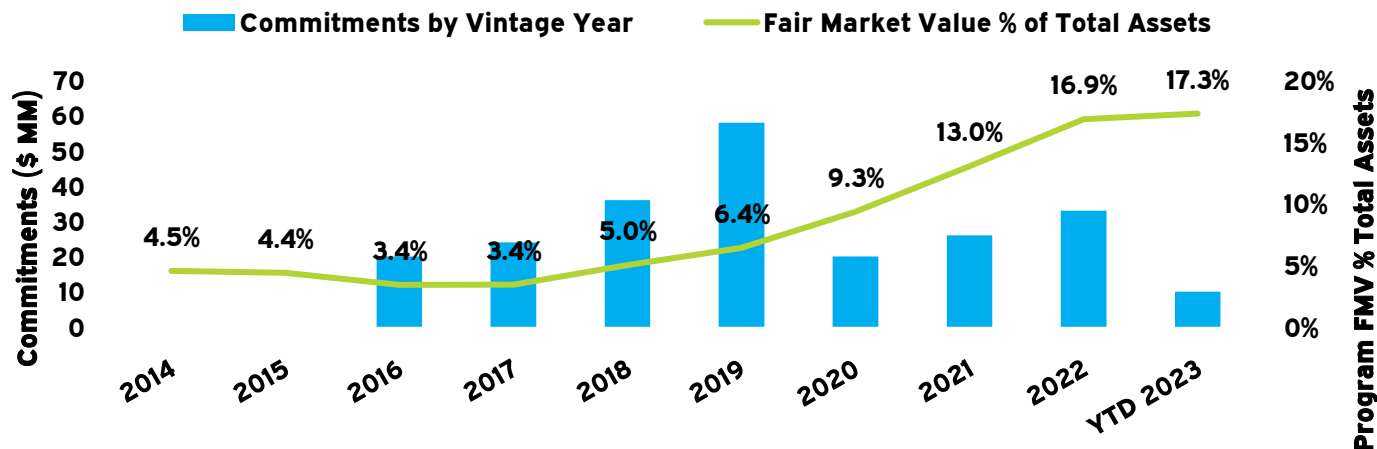
As March 31, 2023 the Retirement Association had committed \$790.1 million to 73 partnerships. The reported fair market value of the program, in aggregate, was \$517.8 million at the end of the quarter.

Private Equity Program		Real Assets Program		Real Estate Program	
No. of Funds	41	No of Funds	11	No of Funds	21
Committed	347.1	Committed	150.0	Committed	293.0
Contributed	247.6	Contributed	118.9	Contributed	280.8
Distributed	150.4	Distributed	26.6	Distributed	230.2
Fair Market Value	228.5	Fair Market Value	119.7	Fair Market Value	169.6
TVPI	1.53x	TVPI	1.23x	TVPI	1.42x
Since Inception IRR	9.4%	Since Inception IRR	5.9%	Since Inception IRR	6.6%
1-Quarter IRR	1.9%	1-Quarter IRR	-0.5%	1-Quarter IRR	-1.3%
1-Year IRR	9.0%	1-Year IRR	6.0%	1-Year IRR	-0.3%

Private Equity Program

Introduction

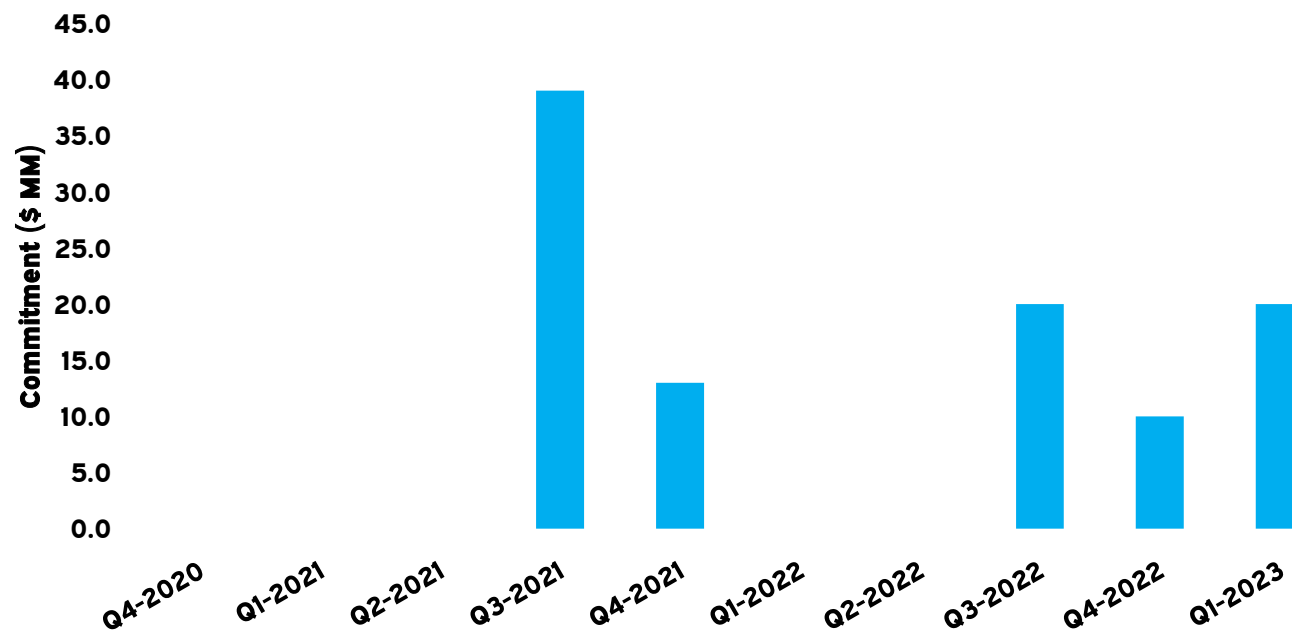
As of March 31, 2023, the Plymouth County Retirement Association (“PCRA,” or the “Retirement Association”) had committed \$347.1 million to 41 partnerships. PCRA maintains a 13% allocation to private equity. As of the end of the first quarter of 2023, the fair market value of PCRA’s private equity program was \$228.5 million, representing 17.3% of total assets.



Program Status	
No. of Investments	41
Committed (\$M)	347.1
Contributed (\$M)	247.6
Distributed (\$M)	150.4
Fair Market Value (\$M)	228.5

Performance Since Inception	
	Program
DPI	0.61x
TVPI	1.53x
IRR	9.4%

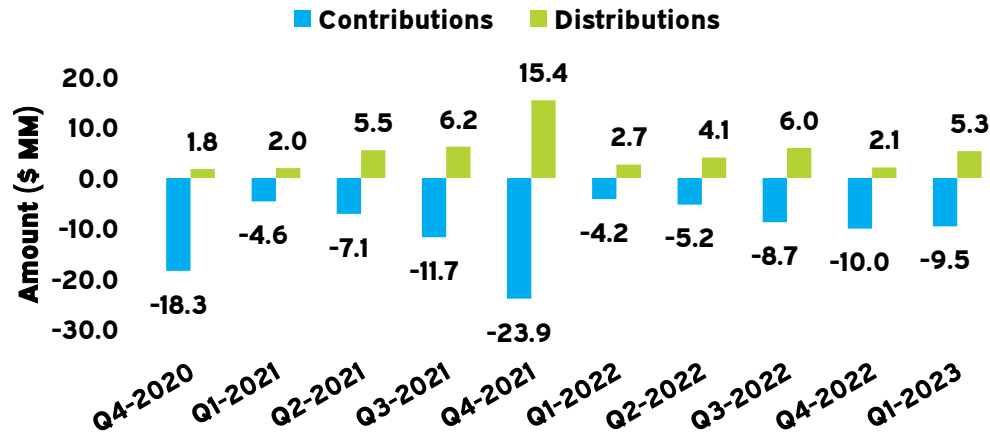
Commitments Recent Quarterly Commitments



Commitments This Quarter

Fund	Strategy	Region	Amount (MM)
Trilantic VII	Buyout	North America	10.00
Waud VI	Buyout	North America	10.00

Cash Flows Recent Quarterly Cash Flows



Largest Contributions This Quarter				
Fund	Vintage	Strategy	Region	Amount (\$MM)
Ironsides Opps II	2023	Private Debt	North America	1.55
Kohlberg IX	2020	Buyout	North America	1.43
HV Co-Invest VI	2021	Buyout	Global: All	1.30

Largest Distributions This Quarter				
Fund	Vintage	Strategy	Region	Amount (\$MM)
Ridgemont III	2019	Buyout	North America	1.99
TRG II	2007	Growth Equity	Global: Developed	1.03
Charlesbank Tech	2019	Buyout	Global: All	0.92

Significant Events

- During the first quarter of 2023, PCRA contributed \$9.54 million to its private equity partnerships and received \$5.33 million in distributions, representing a \$4.21 million net cash outflow.
- Ironsides Opportunities Fund II, L.P. called \$1.70 million during the first quarter, primarily to fund investments, as well as management fees and partnership expenses. The capital call was offset by a \$0.15 million return of excess capital contributions previously called as well as a \$0.08 million return of recallable capital, resulting in a \$1.47 million net cash outflow.
- Kohlberg Investors IX called \$1.43 million during the quarter to fund investments, management fees, and partnership expenses.
- HarbourVest Partners Co-Investment Fund VI, L.P. called \$1.30 million during the first quarter to fund investments.
- Ridgemont Equity Partners III, L.P. distributed \$1.99 million during the first quarter. Proceeds stemmed from the sale of partnership interests in existing investments. Of the total distribution, \$0.67 million was a recallable return of capital, thereby increasing the Retirement Association's unfunded commitment.
- TRG Growth Partnership II, L.P. distributed \$1.03 million during the quarter as proceeds from several underlying investments.
- Charlesbank Technology Opportunities Fund, L.P. distributed \$0.92 million during the first quarter as recallable return of capital proceeds relating to the recapitalization of an existing investment.
- Also during the quarter, PCRA committed \$10.00 million each to Waud Capital Partners VI, L.P. and Trilantic Capital Partners VII, L.P., both representing North American, middle market buyout exposure.

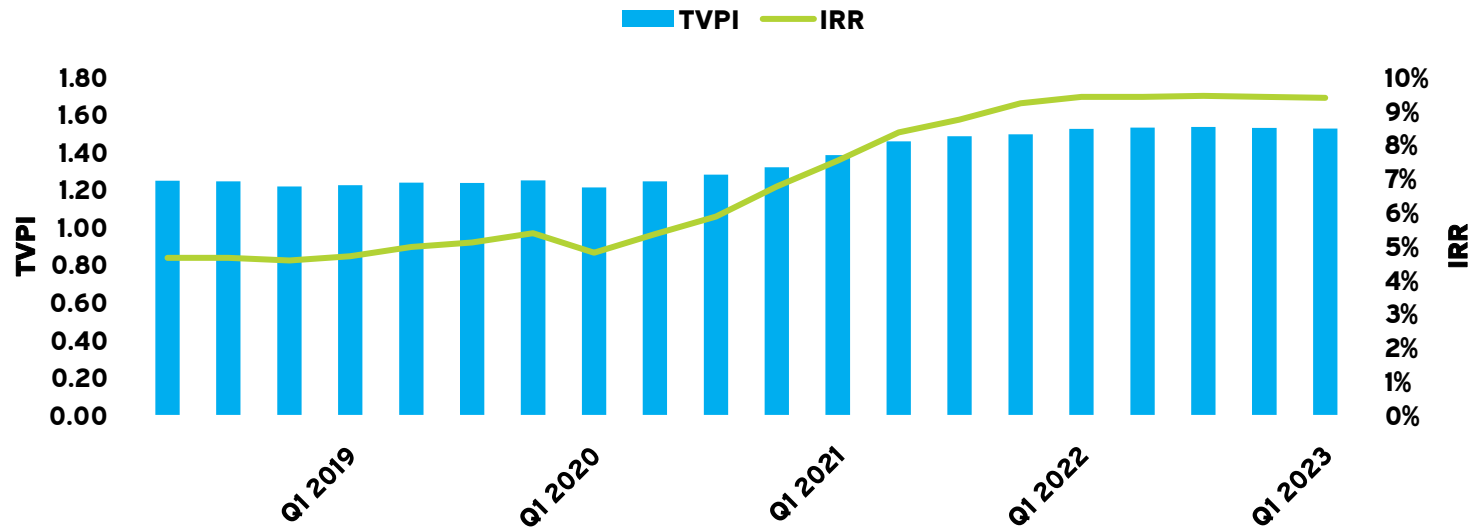
By Strategy

Group	Number	Committed (\$ MM)	Contributed (\$ MM)	Unfunded (\$ MM)	Distributed (\$ MM)	Fair Market Value (\$ MM)	Exposure (\$ MM)	DPI (X)	TVPI (X)	IRR (%)
Buyout	23	218.1	150.9	81.4	52.0	187.9	269.3	0.34	1.59	11.9
Fund of Funds	3	17.6	17.3	1.9	23.3	3.4	5.3	1.35	1.54	8.5
Growth Equity	3	30.5	21.4	14.1	21.5	18.0	32.1	1.01	1.85	12.7
Private Debt	2	30.0	12.0	19.7	7.8	6.3	26.1	0.65	1.18	10.8
Secondary	2	16.0	14.8	1.3	20.7	1.7	3.0	1.40	1.51	12.3
Special Situations	1	3.0	4.9	0.0	5.1	0.0	0.0	1.04	1.04	1.3
Venture Capital	7	31.8	26.3	5.7	20.0	11.1	16.8	0.76	1.19	2.3
Total	41	347.1	247.6	124.1	150.4	228.5	352.6	0.61	1.53	9.4

By Vintage

Group	Number	Committed (\$ MM)	Contributed (\$ MM)	Unfunded (\$ MM)	Distributed (\$ MM)	Fair Market Value (\$ MM)	Exposure (\$ MM)	DPI (X)	TVPI (X)	IRR (%)
1998	1	2.6	2.7	0.0	0.1	0.0	0.0	0.04	0.04	-25.5
1999	1	5.0	4.4	0.6	2.2	0.0	0.6	0.49	0.49	-14.9
2000	1	1.8	1.8	0.0	2.5	0.0	0.0	1.39	1.39	5.5
2001	1	2.0	2.0	0.0	7.7	0.0	0.0	3.83	3.83	29.1
2004	3	13.0	13.1	0.5	18.2	0.0	0.5	1.39	1.39	4.8
2005	3	9.5	11.0	0.3	8.1	0.2	0.5	0.73	0.75	-5.2
2006	1	5.0	4.9	0.1	9.4	2.6	2.8	1.94	2.49	12.9
2007	2	12.5	9.7	2.8	9.0	3.1	5.9	0.93	1.24	3.1
2008	2	12.0	11.7	0.3	16.6	0.9	1.3	1.43	1.50	10.3
2009	1	10.0	9.0	1.1	13.3	1.2	2.3	1.49	1.62	13.7
2010	1	2.5	3.5	0.0	5.6	0.3	0.3	1.59	1.66	12.3
2011	1	5.0	5.0	0.2	4.5	3.2	3.3	0.90	1.53	6.5
2012	1	6.1	5.9	1.4	6.0	2.9	4.3	1.02	1.51	8.1
2016	2	20.0	20.5	6.1	20.2	18.2	24.3	0.99	1.88	26.0
2017	2	24.0	23.3	3.3	6.6	32.4	35.8	0.28	1.68	20.3
2018	3	36.0	32.2	6.9	6.2	47.5	54.4	0.19	1.67	19.2
2019	5	58.0	49.8	14.8	13.4	74.5	89.3	0.27	1.77	37.8
2020	2	20.0	13.2	7.0	0.3	15.5	22.6	0.02	1.20	17.7
2021	3	39.0	19.6	19.7	0.3	21.6	41.4	0.02	1.13	NM
2022	2	33.0	4.2	28.9	0.1	4.3	33.2	0.03	1.04	NM
2023	3	30.0	0.0	30.0	0.0	0.0	30.0	0.00	NA	NA
Total	41	347.1	247.6	124.1	150.4	228.5	352.6	0.61	1.53	9.4

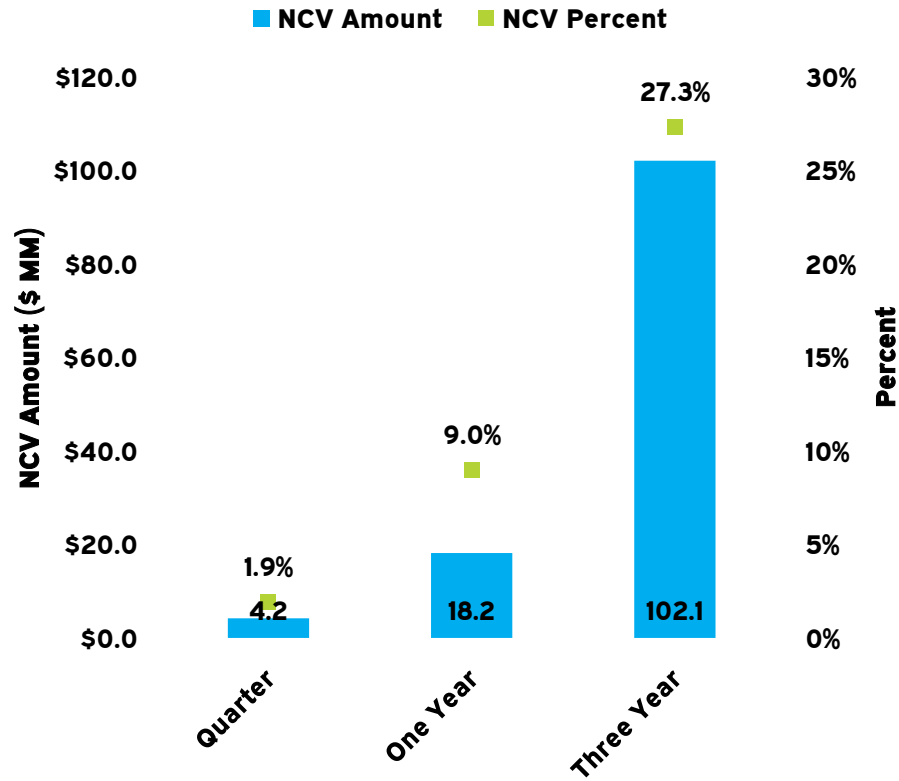
Since Inception Performance Over Time



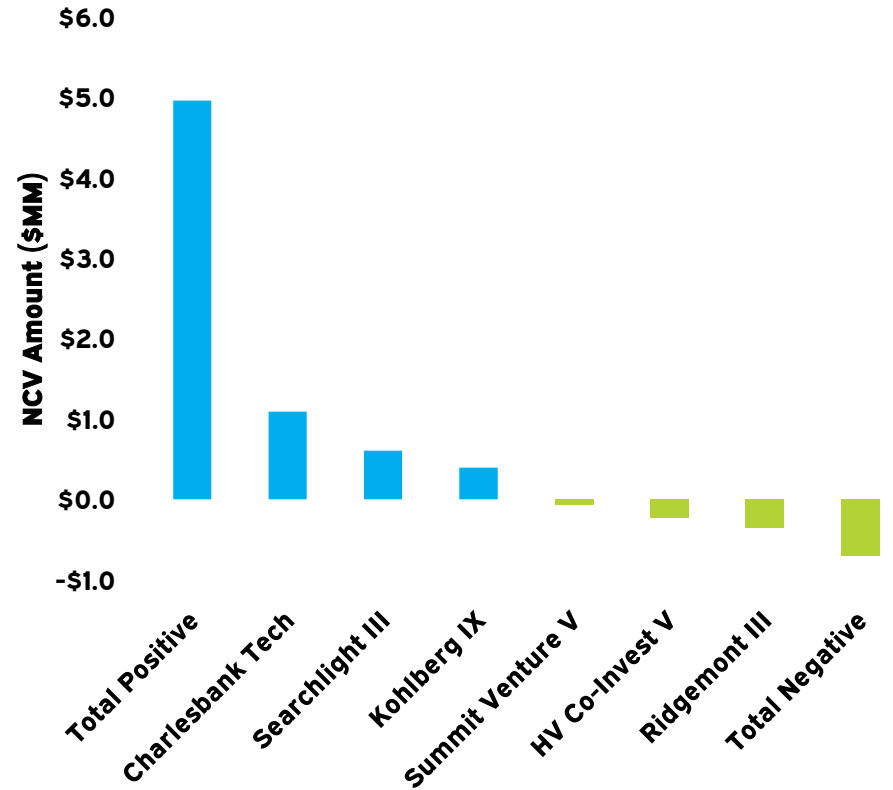
Horizon IRRs

	1 Year (%)	3 Year (%)	5 Year (%)	10 Year (%)	Since Inception (%)
Aggregate Portfolio	9.0	27.5	21.4	14.8	9.4
Public Market Equivalent	-6.8	9.1	5.3	7.1	6.4

Periodic NCV



1 Quarter Drivers Of NCV



Fund Performance: Sorted By Vintage And Strategy

By Investment	Vintage	Strategy	Committed (\$M)	Contributed (\$M)	Unfunded (\$M)	Distributed (\$M)	Fair Market Value (\$M)	TVPI (X)	Peer TVPI (X) ¹	IRR (%)	Peer IRR (%)
Senior Tour Players	1998	Buyout	2.6	2.7	0.0	0.1	0.0	0.04	1.38	-25.5	8.0
Charles River X	1999	Venture Capital	5.0	4.4	0.6	2.2	0.0	0.49	1.30	-14.9	7.1
Chales River XI	2000	Venture Capital	1.8	1.8	0.0	2.5	0.0	1.39	1.43	5.5	8.3
Rimco	2001	Buyout	2.0	2.0	0.0	7.7	0.0	3.83	1.64	29.1	13.0
Leeds IV	2004	Buyout	5.0	5.1	0.1	9.7	0.0	1.91	1.58	8.0	8.9
Euro Choice II	2004	Fund of Funds	5.5	5.5	0.4	8.0	0.0	1.46	1.58	7.0	8.9
Ascent Venture IV	2004	Venture Capital	2.5	2.5	0.0	0.4	0.0	0.17	1.58	-27.2	8.9
Mesirow IX	2005	Buyout	4.0	3.8	0.2	2.0	0.1	0.55	1.47	-7.0	8.2
Levine Leichtman DV	2005	Special Situations	3.0	4.9	0.0	5.1	0.0	1.04	1.47	1.3	8.2
Ascend Ventures II	2005	Venture Capital	2.5	2.3	0.2	1.0	0.1	0.46	1.47	-8.4	8.2
Globespan V	2006	Venture Capital	5.0	4.9	0.1	9.4	2.6	2.49	1.47	12.9	7.9
DN Partners II	2007	Buyout	5.0	2.4	2.6	0.0	2.6	1.11	1.68	0.8	11.3
TRG II	2007	Growth Equity	7.5	7.4	0.2	9.0	0.5	1.29	1.68	4.4	11.3
Siguler Guff III	2008	Fund of Funds	6.0	5.8	0.2	9.2	0.5	1.66	1.61	10.6	12.0

¹ Preqin, Private Equity – All, Net Median as of March 31, 2023 (unless otherwise noted).

Fund Performance: Sorted By Vintage And Strategy (con't)

By Investment	Vintage	Strategy	Committed (\$ MM)	Contributed (\$ MM)	Unfunded (\$ MM)	Distributed (\$ MM)	Fair Market Value (\$ MM)	TVPI (X)	Peer TVPI (X)	IRR (%)	Peer IRR (%)
Landmark XIV	2008	Secondary	6.0	5.8	0.2	7.4	0.4	1.35	1.61	9.7	12.0
Lexington VII	2009	Secondary	10.0	9.0	1.1	13.3	1.2	1.62	1.85	13.7	15.2
Leeds V	2010	Buyout	2.5	3.5	0.0	5.6	0.3	1.66	1.88	12.3	15.6
Ascent Venture V	2011	Venture Capital	5.0	5.0	0.2	4.5	3.2	1.53	1.80	6.5	16.1
Euro Choice V	2012	Fund of Funds	6.1	5.9	1.4	6.0	2.9	1.51	1.76	8.1	15.3
Summit Growth IX	2016	Growth Equity	10.0	11.7	3.3	12.6	15.0	2.36	1.99	32.5	21.7
Audax Mezz IV	2016	Private Debt	10.0	8.7	2.8	7.6	3.2	1.23	1.30 ¹	10.9	9.6 ¹
LLR V	2017	Buyout	12.0	11.6	1.9	4.0	16.5	1.76	1.80	20.0	21.9
Wellspring VI	2017	Buyout	12.0	11.6	1.4	2.6	16.0	1.60	1.80	20.6	21.9
HV Co-Invest V	2018	Buyout	12.0	9.3	2.7	1.9	14.6	1.78	1.62	24.2	23.8
Ironsides Direct V	2018	Buyout	12.0	11.9	2.1	3.2	18.7	1.84	1.62	18.3	23.8
Trilantic VI	2018	Buyout	12.0	11.0	2.1	1.2	14.2	1.39	1.62	16.0	23.8
Charlesbank Tech	2019	Buyout	12.0	8.7	5.0	2.0	16.7	2.16	1.37	66.3	20.6

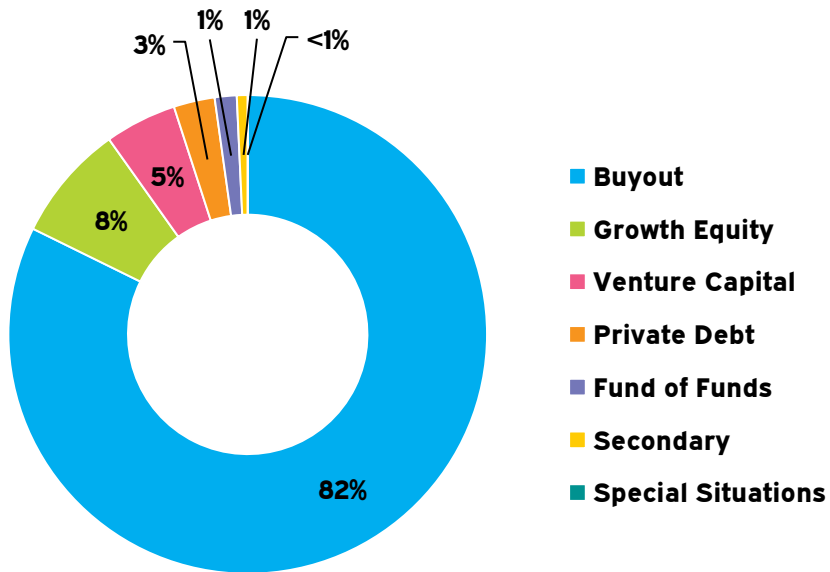
¹ Preqin, Private Debt – All, Net Median as of March 31, 2023.

Fund Performance: Sorted By Vintage And Strategy (con't)

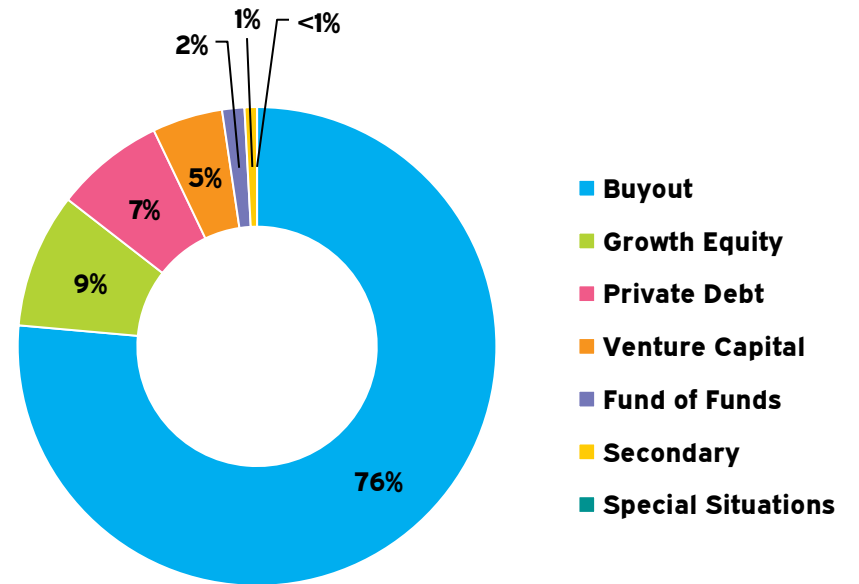
By Investment	Vintage	Strategy	Committed (\$ MM)	Contributed (\$ MM)	Unfunded (\$ MM)	Distributed (\$ MM)	Fair Market Value (\$ MM)	TVPI (X)	Peer TVPI (X)	IRR (%)	Peer IRR (%)
FS Equity VIII	2019	Buyout	12.0	9.7	2.3	0.3	15.7	1.65	1.37	27.7	20.6
Ridgemont III	2019	Buyout	12.0	12.9	2.1	7.0	16.5	1.82	1.37	40.4	20.6
Searchlight III	2019	Buyout	12.0	8.6	5.2	4.0	10.5	1.68	1.37	34.7	20.6
Waud V	2019	Buyout	10.0	9.9	0.2	0.1	15.1	1.53	1.37	27.5	20.6
Kohlberg IX	2020	Buyout	10.0	7.9	2.4	0.3	10.3	1.35	1.14	30.3	14.3
Summit Venture V	2020	Venture Capital	10.0	5.4	4.6	0.0	5.3	0.98	1.14	NM	14.3
HV Co-Invest VI	2021	Buyout	13.0	4.6	8.5	0.0	4.7	1.04	1.07	NM	NM
Ironsides Co-Inv VI	2021	Buyout	13.0	12.7	0.7	0.3	14.4	1.17	1.07	NM	NM
Summit Growth XI	2021	Growth Equity	13.0	2.4	10.6	0.0	2.5	1.05	1.07	NM	NM
Ridgemont IV	2022	Buyout	13.0	1.0	12.0	0.0	1.1	1.11	1.01	NM	NM
Ironsides Opps II	2022	Private Debt	20.0	3.2	16.9	0.1	3.2	1.02	1.11 ¹	NM	NM
Trilantic VII	2023	Buyout	10.0	0.0	10.0	0.0	0.0	NA	NA	NA	NA
Waud VI	2023	Buyout	10.0	0.0	10.0	0.0	0.0	NA	NA	NA	NA
Kohlberg X	2023	Buyout	10.0	0.0	10.0	0.0	0.0	NA	NA	NA	NA
Total			347.1	247.6	124.1	150.4	228.5	1.53	NM	9.4	NM

By Strategy

Percent of FMV

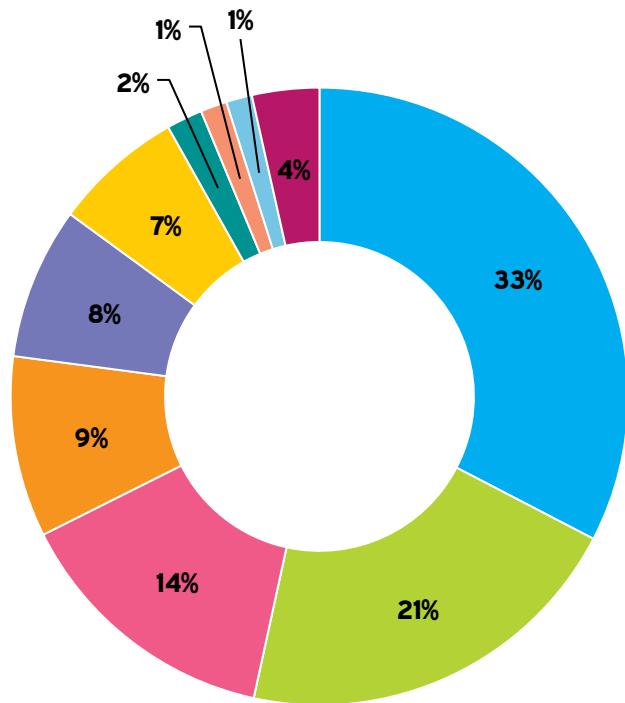


Percent of Exposure



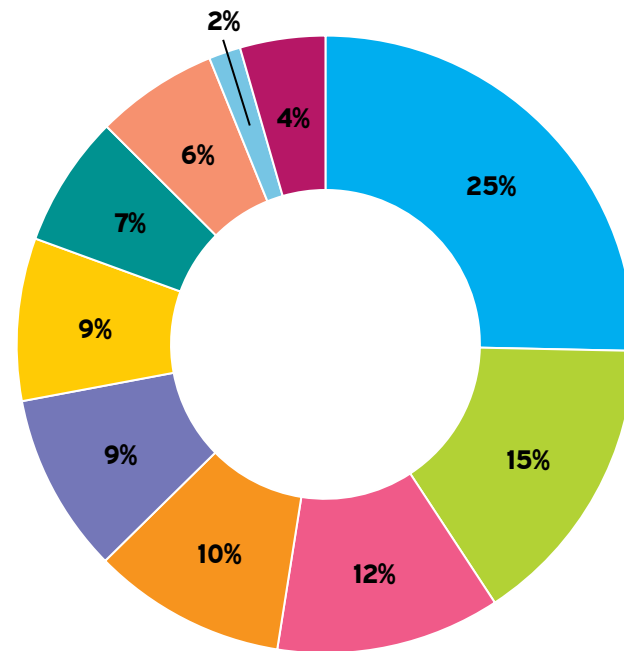
By Vintage

Percent of FMV



- 2019
- 2018
- 2017
- 2021
- 2016
- 2020
- 2022
- 2011
- 2007
- Other

Percent of Exposure

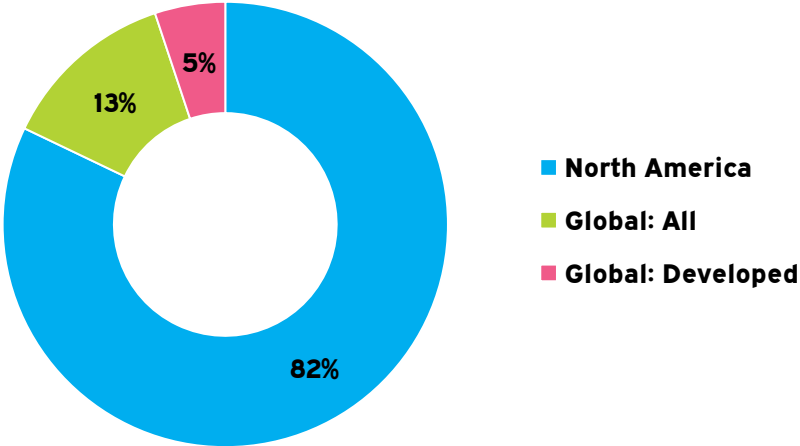
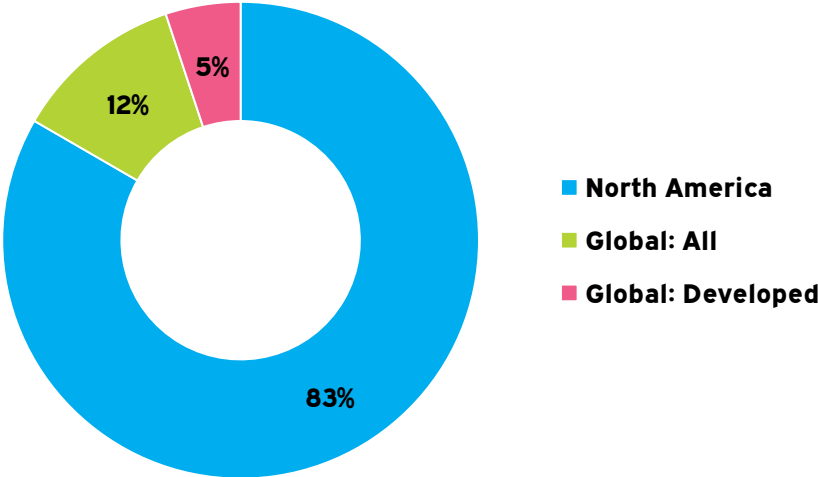


- 2019
- 2018
- 2021
- 2017
- 2022
- 2023
- 2016
- 2020
- 2007
- Other

By Geographic Focus

Percent of FMV

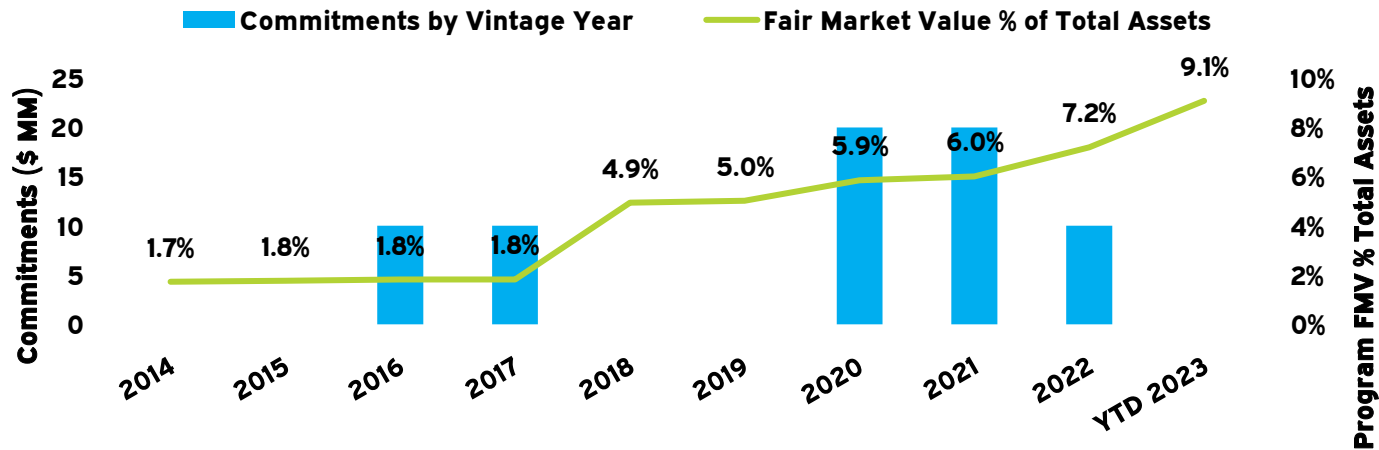
Percent of Exposure



Real Assets Program

Introduction

As of March 31, 2023, the Plymouth County Retirement Association (“PCRA,” or the “Retirement Association”) had committed \$150.0 million to 11 partnerships. No new commitments closed during the first quarter of 2023. The fair market value of PCRA’s Real Assets program was \$119.7 million (approximately 67.4% of fair market value in open- end core funds), representing 9.1% of total assets, exceeding the program’s 6.0% target.



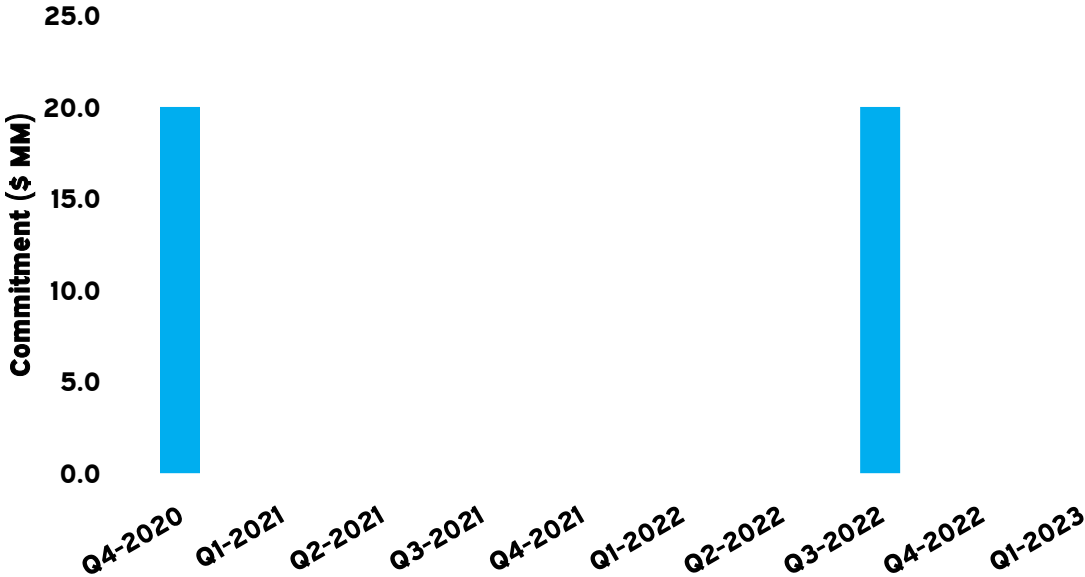
Program Status

No. of Investments	11
Committed (\$M)	150.0
Contributed (\$M)	118.9
Distributed (\$M)	26.6
Fair Market Value (\$M)	119.7

Performance Since Inception

Program	
DPI	0.22x
TVPI	1.23x
IRR	5.9%

Commitments
Recent Quarterly Commitments

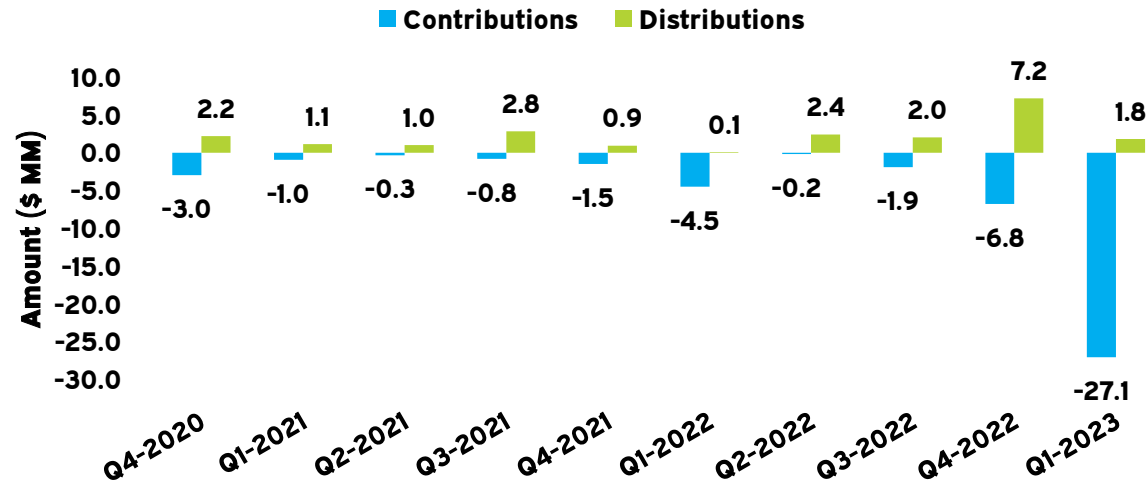


Commitments This Quarter

Fund	Strategy	Region	Amount (MM)
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No new commitments made during the quarter.

Cash Flows Recent Quarterly Cash Flows



Largest Contributions This Quarter

Fund	Vintage	Strategy	Region	Amount (\$MM)
IFM Global IS	2009	Core	Global: Developed	25.00
ISQ IS III	2021	Value Added	Global: Developed	1.19
BlackRock GRPIF III	2020	Value Added	Global: All	0.65

Largest Distributions This Quarter

Fund	Vintage	Strategy	Region	Amount (\$MM)
JPMorgan Maritime	2010	Opportunistic	Global: Developed	0.99
IFM Global IS	2009	Core	Global: Developed	0.41
GIP III	2016	Value-Added	Global: Developed	0.17

Significant Events

- During the first quarter of 2022, the Retirement Association contributed \$27.06 million to its private real assets partnerships and received \$1.80 million in distributions, representing a \$25.26 million net cash outflow.
- IFM Global Infrastructure L.P. called \$25.0 million during the first quarter to fund new investments. The Fund also distributed \$0.41 million as return of capital proceeds.
- ISQ Global Infrastructure Fund III, L.P. called \$1.19 million during the quarter, primarily to fund investments, as well as management fees and partnership expenses.
- BlackRock Global Renewable Power Infrastructure Fund III, L.P. called \$0.65 million during the first quarter, primarily for fund investments, as well as partnership expenses.
- JPMorgan Global Maritime Investment Fund L.P. distributed \$0.99 million during the quarter as proceeds from existing investments.
- Global Infrastructure Partners III, L.P. distributed \$0.17 million during the first quarter. Proceeds stemmed from dividend proceeds from existing investments. The distribution was offset by a \$0.06 million capital call for investments, management fees, and partnership expenses, resulting in a \$0.11 million net distribution.

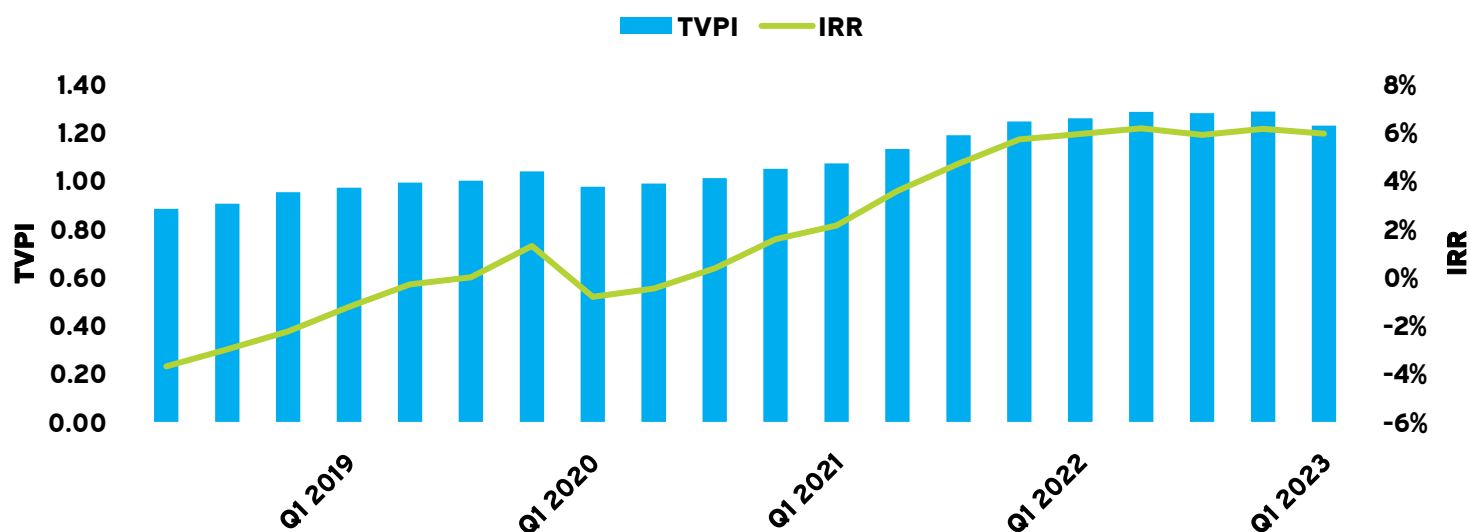
By Strategy

Group	Number	Committed (\$ MM)	Contributed (\$ MM)	Unfunded (\$ MM)	Distributed (\$ MM)	Fair Market Value (\$ MM)	Exposure (\$ MM)	DPI (X)	TVPI (X)	IRR (%)
Core	2	70.0	69.4	3.1	9.7	80.7	83.7	0.14	1.30	10.7
Natural Resources	2	10.0	10.0	0.0	6.0	5.1	5.1	0.59	1.10	1.1
Opportunistic	1	10.0	10.0	0.3	5.5	3.3	3.6	0.54	0.87	-1.8
Value-Added	6	60.0	29.4	33.3	5.5	30.6	63.9	0.19	1.23	10.5
Total	11	150.0	118.9	36.6	26.6	119.7	156.4	0.22	1.23	5.9

By Vintage

Group	Number	Committed (\$ MM)	Contributed (\$ MM)	Unfunded (\$ MM)	Distributed (\$ MM)	Fair Market Value (\$ MM)	Exposure (\$ MM)	DPI (X)	TVPI (X)	IRR (%)
Open-end Fund	1	60.0	60.0	0.0	3.8	73.6	73.6	0.06	1.29	11.0
2010	2	15.0	15.0	0.3	9.5	7.0	7.2	0.63	1.10	1.2
2011	1	5.0	5.0	0.0	1.9	1.4	1.4	0.37	0.66	-4.9
2016	1	10.0	10.2	1.1	4.8	10.4	11.5	0.47	1.48	10.4
2017	1	10.0	9.4	3.1	5.8	7.1	10.2	0.62	1.37	9.4
2020	2	20.0	12.6	8.3	0.3	13.3	21.6	0.03	1.08	6.6
2021	2	20.0	5.8	14.6	0.4	6.4	21.0	0.06	1.16	NM
2022	1	10.0	0.7	9.3	0.0	0.6	9.9	0.00	0.85	NM
Total	11	150.0	118.9	36.6	26.6	119.7	156.4	0.22	1.23	5.9

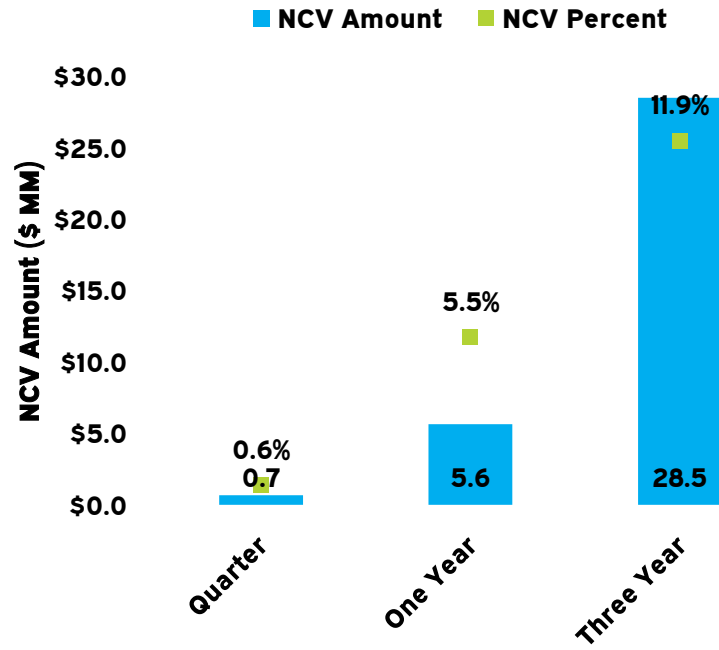
Since Inception Performance Over Time



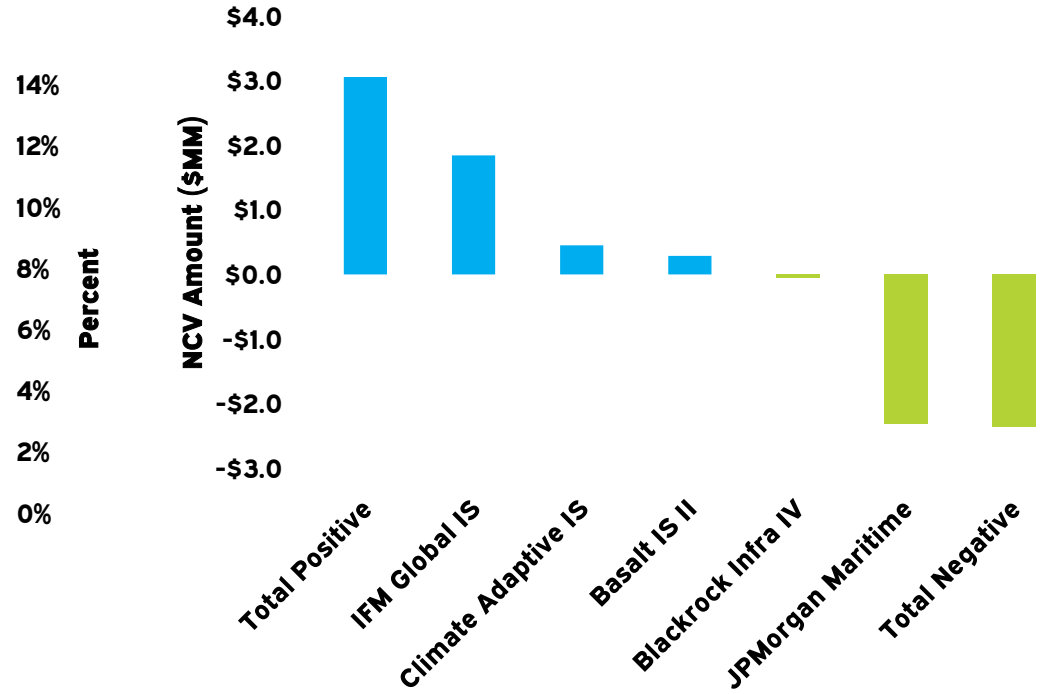
Horizon IRRs

	1 Year (%)	3 Year (%)	5 Year (%)	10 Year (%)	Since Inception (%)
Aggregate Portfolio	6.0	12.5	9.3	6.5	5.9
Public Market Equivalent	-7.7	18.5	8.2	7.3	7.4

Periodic NCV



1 Quarter Drivers Of NCV



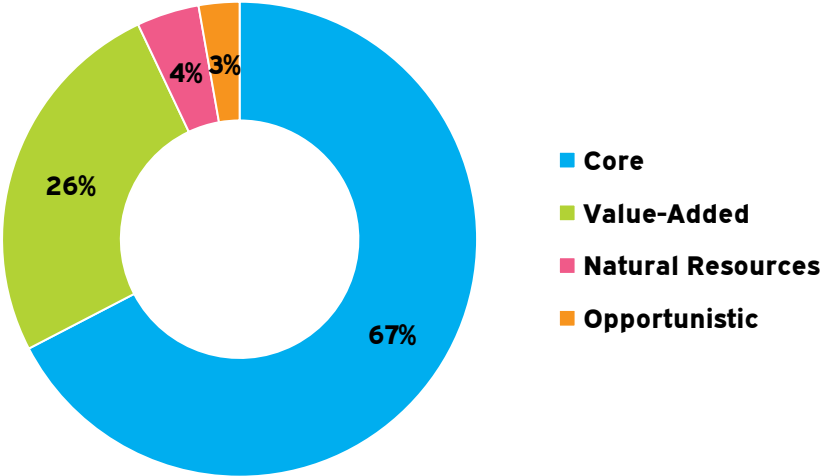
	1Q23 (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)	Since Inception (%)	Inception Date
IFM Global Infrastructure	2.6	9.6	11.8	NA	NA	10.7	10/01/2018
<i>CPI+3%</i>	2.4	8.1	8.5	NA	NA	7.2	

Fund Performance: Sorted By Vintage And Strategy

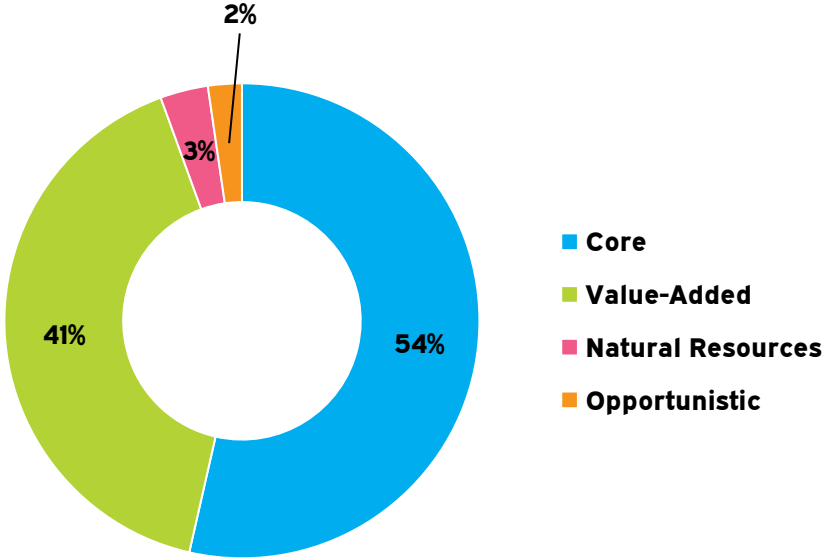
By Investment	Vintage	Strategy	Committed (\$ MM)	Contributed (\$ MM)	Unfunded (\$ MM)	Distributed (\$ MM)	Fair Market Value (\$ MM)	TVPI (X)	Peer TVPI (X)	IRR (%)	Peer IRR (%)
IFM Global IS	Open end	Core	60.0	60.0	0.0	3.8	73.6	1.29	NA	11.0	NA
Timbervest III	2010	Natural Resources	5.0	5.0	0.0	4.1	3.7	1.55	1.43	5.0	9.7
JPMorgan Maritime	2010	Opportunistic	10.0	10.0	0.3	5.5	3.3	0.87	1.43	-1.8	9.7
BTG Global Timber	2011	Natural Resources	5.0	5.0	0.0	1.9	1.4	0.66	1.51	-4.9	8.5
GIP III	2016	Value-Added	10.0	10.2	1.1	4.8	10.4	1.48	1.54	10.4	12.8
Basalt IS II	2017	Core	10.0	9.4	3.1	5.8	7.1	1.37	1.38	9.4	14.7
BlackRock GRPIF III	2020	Value-Added	10.0	4.8	5.4	0.3	5.1	1.13	1.25	11.9	18.3
GIP IV	2020	Value-Added	10.0	7.8	2.8	0.0	8.2	1.05	1.25	3.7	18.3
Climate Adaptive IS	2021	Value-Added	10.0	3.6	6.8	0.4	4.1	1.24	1.21	NM	NM
ISQ IS III	2021	Value-Added	10.0	2.3	7.7	0.0	2.4	1.04	1.21	NM	NM
Blackrock Infra IV	2022	Value-Added	10.0	0.7	9.3	0.0	0.6	0.85	1.07	NM	NM
Total			150.0	118.9	36.6	26.6	119.7	1.23		5.9	

By Strategy

Percent of FMV

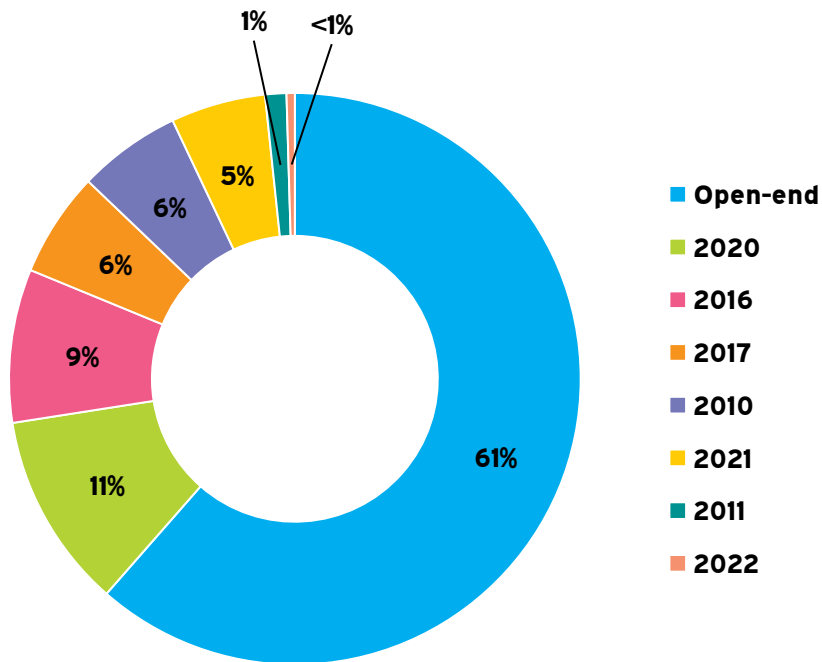


Percent of Exposure

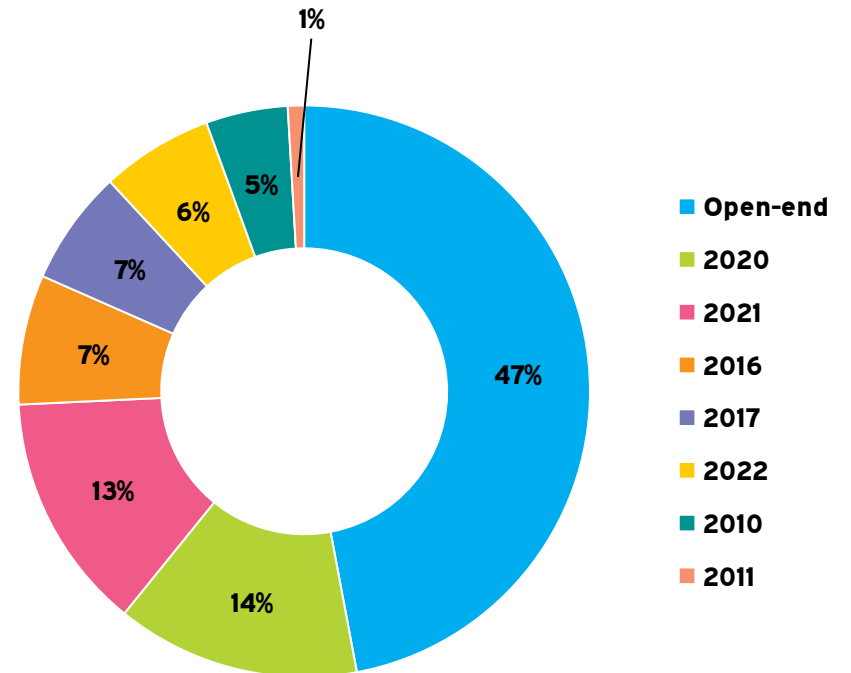


By Vintage

Percent of FMV



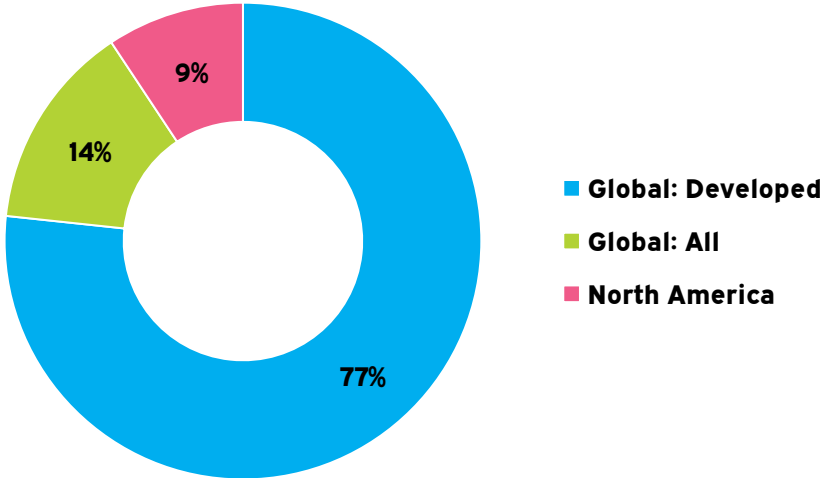
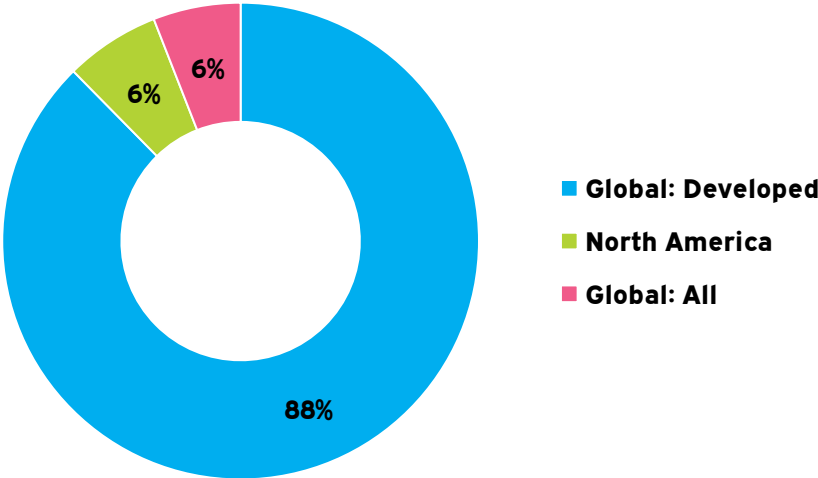
Percent of Exposure



By Geographic Focus

Percent of FMV

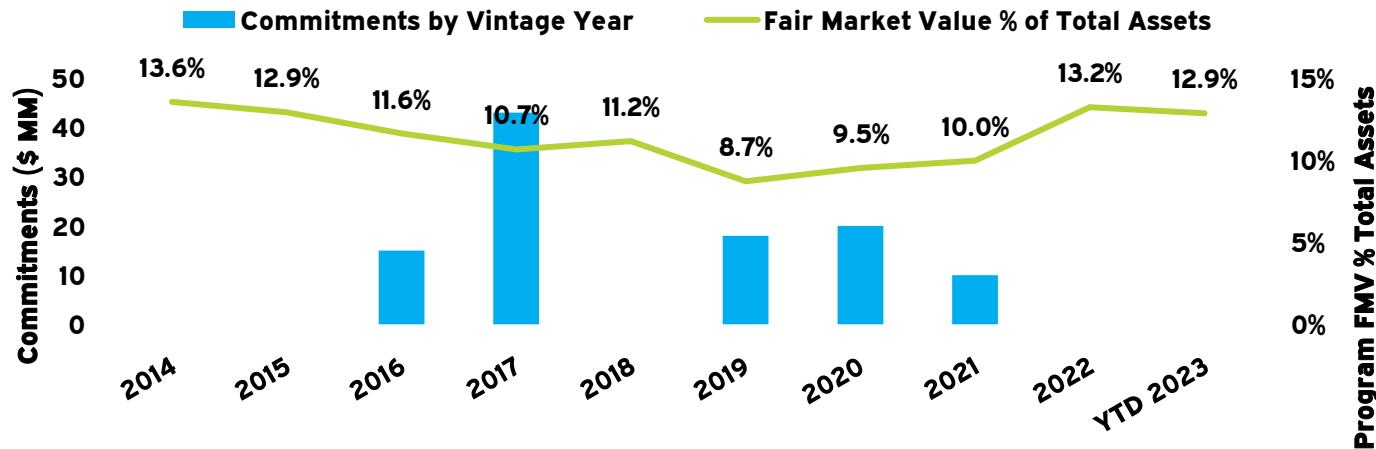
Percent of Exposure



Real Estate Program

Introduction

As of March 31, 2023, the Plymouth County Retirement Association (“PCRA,” or the “Retirement Association”) had committed \$293.0 million to 21 partnerships. As of the end of the first quarter, the fair market value of PCRA’s private real estate partnerships, in aggregate, was \$169.6 million (approximately 65.6% of the fair market value of the program in open-end core funds). The fair market value of PCRA’s real estate program represents 12.9% of total assets, exceeding the program’s 10% long-term target.



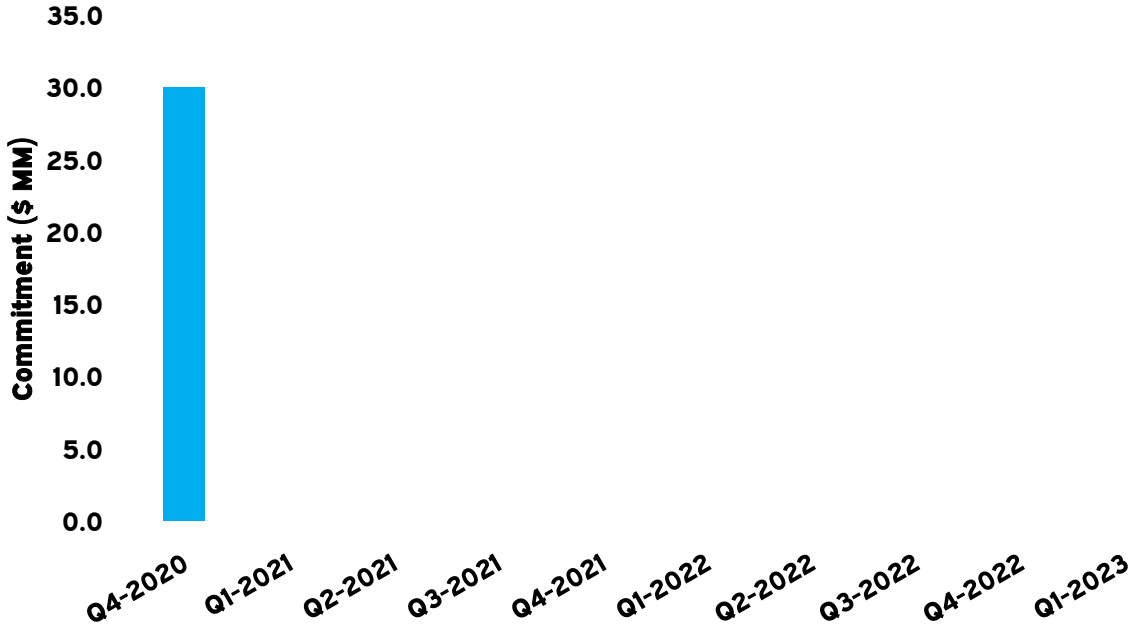
Program Status

No. of Investments	21
Committed (\$M)	293.0
Contributed (\$M)	280.8
Distributed (\$M)	230.2
Fair Market Value (\$M)	169.6

Performance Since Inception

Program	
DPI	0.82x
TVPI	1.42x
IRR	6.6%

Commitments
Recent Quarterly Commitments

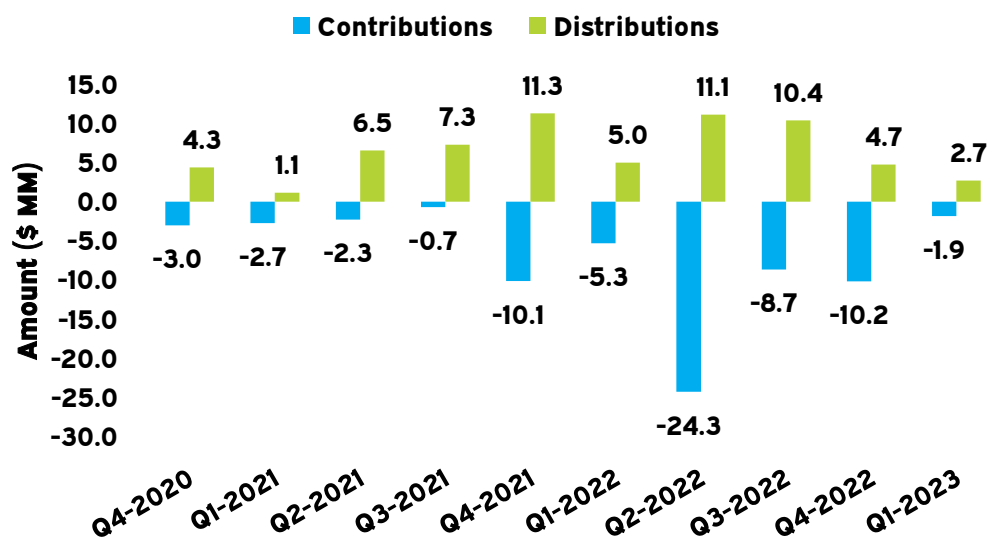


Commitments This Quarter

Fund	Strategy	Region	Amount (MM)
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No new commitments made during the quarter.

Cash Flows Recent Quarterly Cash Flows



Largest Contributions This Quarter

Fund	Vintage	Strategy	Region	Amount (\$MM)
PCCP Equity IX	2021	Opportunistic	North America	1.00
AEW Partners IX	2020	Opportunistic	North America	0.62
TA Realty Core	2018	Core	North America	0.14

Largest Distributions This Quarter

Fund	Vintage	Strategy	Region	Amount (\$MM)
TA Realty Core	2018	Core	North America	0.91
DSF III	2016	Value-Added	North America	0.89
Carlyle Realty VIII	2017	Opportunistic	North America	0.47

Significant Events

- During the first quarter of 2023, the Retirement Association contributed \$1.87 million to its private real estate partnerships and received \$2.68 million in distributions, representing a \$0.81 million net cash inflow.
- PCCP Equity IX, L.P. called \$1.00 million during the first quarter, primarily to fund investments as well as partnership expenses.
- AEW Partners IX, L.P. called \$0.62 million during the quarter to fund investments.
- TA Realty Core Property Fund, L.P. distributed \$0.91 million during the first quarter. Proceeds stemmed from cash flow proceeds from existing investments. The distribution was offset by a \$0.14 million capital call for management fees, resulting in a \$0.77 million net distribution.
- DSF Multi-Family Real Estate Fund III, L.P. distributed \$0.89 million during the quarter. Proceeds stemmed from the sale of an underlying investment.
- Carlyle Realty Partners VIII, L.P. distributed \$0.47 million during the first quarter as proceeds from existing investments. The distribution was offset by a \$0.07 million capital call for partnership expenses, resulting in a \$0.40 million net distribution.

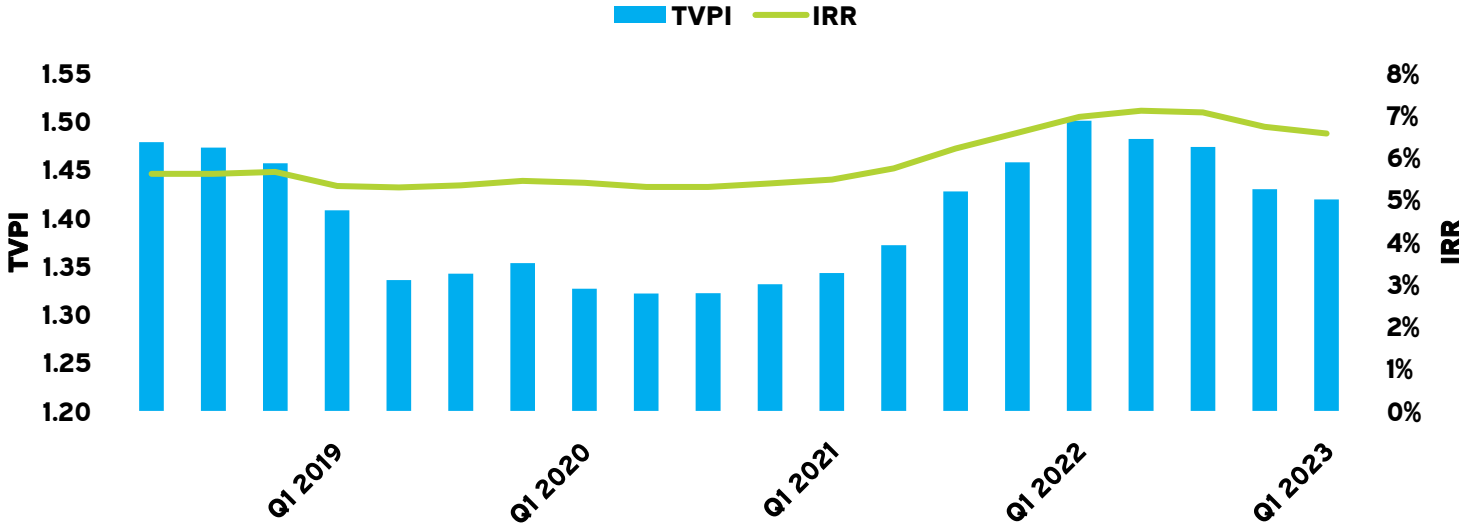
By Strategy

Group	Number	Committed (\$ MM)	Contributed (\$ MM)	Unfunded (\$ MM)	Distributed (\$ MM)	Fair Market Value (\$ MM)	Exposure (\$ MM)	DPI (X)	TVPI (X)	IRR (%)
Core	5	129.0	134.0	0.0	103.5	109.6	109.6	0.77	1.59	7.1
Fund of Funds	1	15.0	12.7	2.3	11.4	0.6	3.0	0.90	0.95	-0.9
Opportunistic	6	77.0	65.0	24.6	41.1	38.6	63.2	0.63	1.23	6.9
Value-Added	9	72.0	69.1	7.2	74.2	20.8	28.0	1.07	1.37	6.7
Total	21	293.0	280.8	34.1	230.2	169.6	203.7	0.82	1.42	6.6

By Vintage

Group	Number	Committed (\$ MM)	Contributed (\$ MM)	Unfunded (\$ MM)	Distributed (\$ MM)	Fair Market		DPI (X)	TVPI (X)	IRR (%)
						Value (\$ MM)	Exposure (\$ MM)			
Open-end Fund	5	129.0	134.0	0.0	103.5	109.6	109.6	0.77	1.59	7.1
2001	1	4.0	4.6	0.0	5.7	0.0	0.0	1.23	1.23	2.4
2003	1	10.0	9.0	1.9	11.7	0.0	1.9	1.31	1.31	5.1
2004	1	4.0	4.6	0.0	2.4	0.0	0.0	0.54	0.54	-8.0
2007	3	30.0	26.9	4.3	33.3	0.6	4.9	1.24	1.26	4.7
2008	1	5.0	5.4	0.0	0.0	0.5	0.5	0.00	0.10	-14.4
2011	1	5.0	5.0	0.0	7.4	0.0	0.0	1.48	1.48	11.6
2016	1	15.0	15.1	0.0	23.0	4.3	4.3	1.52	1.81	15.4
2017	2	43.0	39.2	15.6	40.0	16.5	32.1	1.02	1.44	20.8
2019	2	18.0	13.6	5.5	2.1	13.6	19.1	0.16	1.16	9.8
2020	2	20.0	17.4	3.0	1.0	18.1	21.1	0.06	1.10	9.0
2021	1	10.0	6.1	3.9	0.0	6.4	10.2	0.00	1.04	NM
Total	21	293.0	280.8	34.1	230.2	169.6	203.7	0.82	1.42	6.6

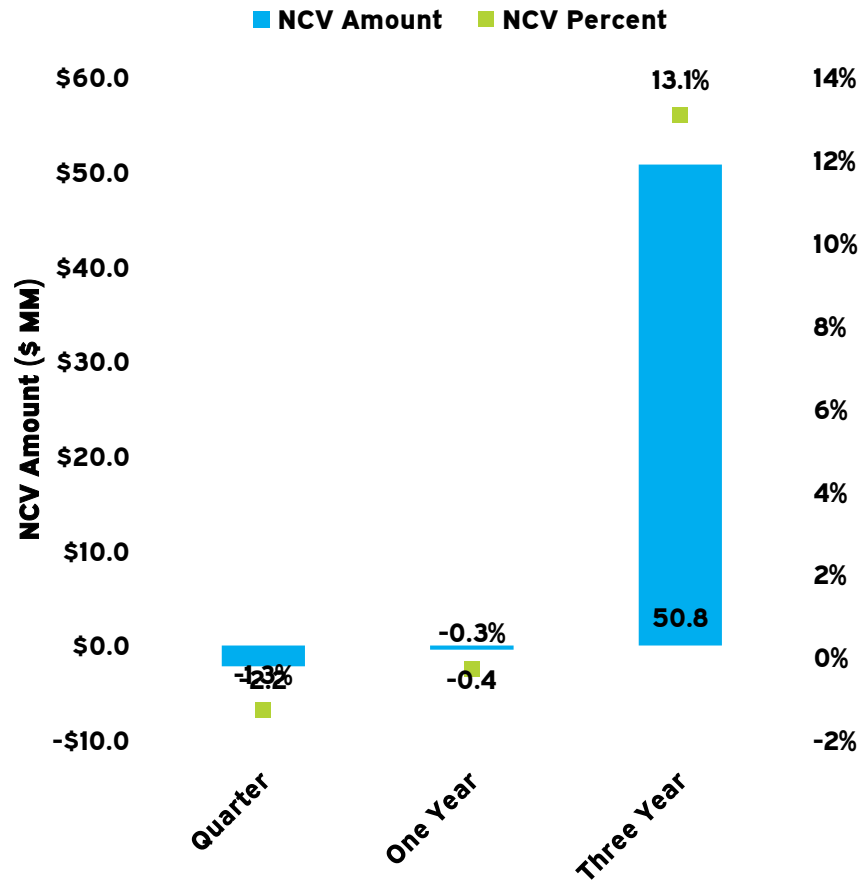
Since Inception Performance Over Time



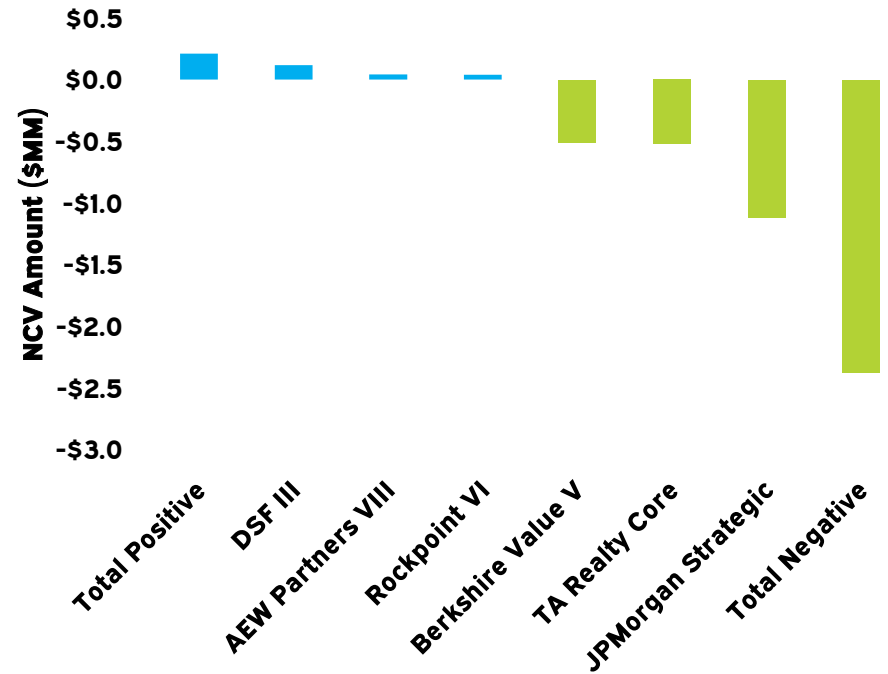
Horizon IRRs

	1 Year (%)	3 Year (%)	5 Year (%)	10 Year (%)	Since Inception (%)
Aggregate Portfolio	-0.3	13.3	9.9	8.1	6.6
Public Market Equivalent	-24.2	4.7	-0.6	0.7	3.4

Periodic NCV



1 Quarter Drivers Of NCV



	2Q23 (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)	Since Inception (%)	Inception Date
JPMorgan Strategic Property	-3.2	-5.6	6.3	NA	NA	5.8	4/01/2019
<i>NCREIF ODCE Equal Weighted (Net)</i>	-3.5	-3.7	8.2	NA	NA	7.2	
TA Realty Core Property Fund, L.P.	-0.7	0.0	13.3	12.7	NA	12.5	3/21/2018
<i>NCREIF ODCE Equal Weighted (Net)</i>	-3.5	-3.7	8.2	7.1	NA	7.4	

Fund Performance: Sorted By Vintage And Strategy

By Investment	Vintage	Strategy	Committed (\$M)	Contributed (\$M)	Unfunded (\$M)	Distributed (\$M)	Fair Market Value (\$M)	TVPI (X)	Peer TVPI (X)	IRR (%)	Peer IRR (%)
Invesco RE	Open end	Core	22.0	23.9	0.0	44.8	0.0	1.87	NA	8.3	NA
JPMorgan Strategic	Open end	Core	27.0	27.0	0.0	0.5	33.4	1.25	NA	5.8	NA
MEPT	Open end	Core	5.0	5.0	0.0	15.9	0.0	3.18	NA	6.5	NA
PRISA I	Open end	Core	15.0	17.2	0.0	35.5	0.0	2.06	NA	5.3	NA
TA Realty Core	Open end	Core	60.0	60.9	0.0	6.8	76.2	1.36	NA	11.1	NA
Intercontinental III	2001	Value Added	4.0	4.6	0.0	5.7	0.0	1.23	1.60	2.4	19.1
Hunt Redevelopment	2003	Value Added	10.0	9.0	1.9	11.7	0.0	1.31	1.60	5.1	17.1
Intercontinental IV	2004	Value Added	4.0	4.6	0.0	2.4	0.0	0.54	1.24	-8.0	9.2
Mesirow RE Intl	2007	Fund of Funds	15.0	12.7	2.3	11.4	0.6 ¹	0.95	1.23	-0.9	6.4
Berkshire Multi II	2007	Value Added	10.0	11.3	0.0	17.9	0.0	1.59	1.23	11.0	6.4

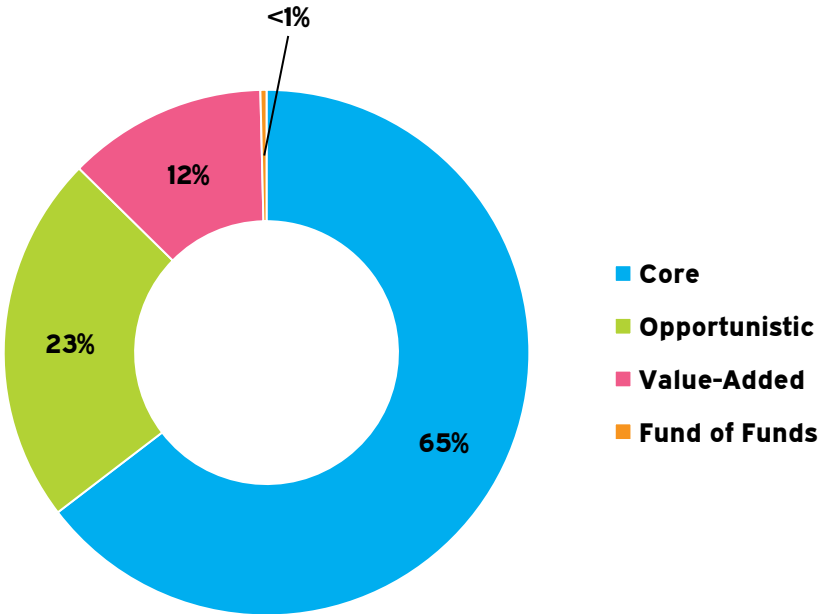
¹ The fair market value of Mesirow Real Estate International Partnership Fund I, L.P. is a cash adjusted estimate due to the timing of the report.

Fund Performance: Sorted By Vintage And Strategy (con't)

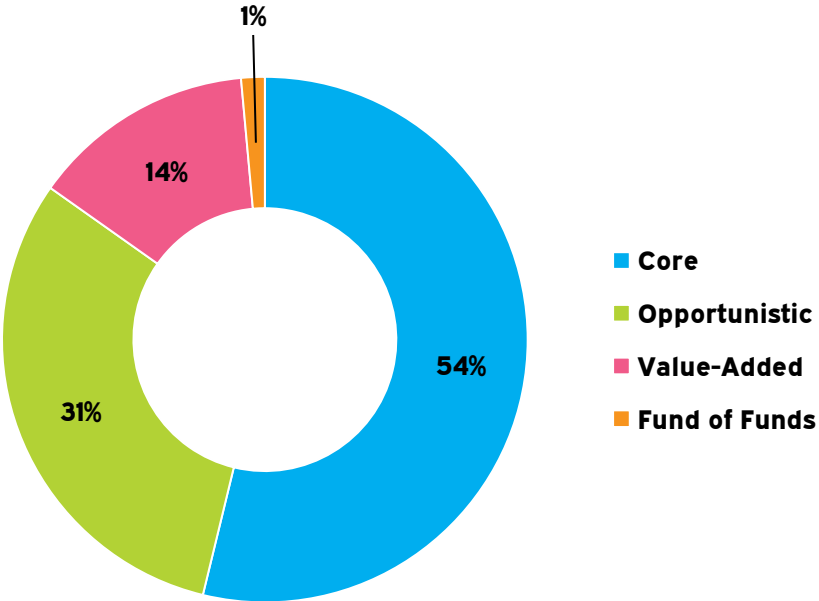
By Investment	Vintage	Strategy	Committed (\$ MM)	Contributed (\$ MM)	Unfunded (\$ MM)	Distributed (\$ MM)	Fair Market Value (\$ MM)	TVPI (X)	Peer TVPI (X)	IRR (%)	Peer IRR (%)
New Boston VII	2007	Value-Added	5.0	3.0	2.0	4.0	0.0	1.33	1.23	5.6	6.4
1921 Realty	2008	Opportunistic	5.0	5.4	0.0	0.0	0.5	0.10	1.38	-14.4	9.8
DSF IV	2011	Value-Added	5.0	5.0	0.0	7.4	0.0	1.48	1.68	11.6	19.0
DSF III	2016	Value-Added	15.0	15.1	0.0	23.0	4.3	1.81	1.42	15.4	12.3
AEW Partners VIII	2017	Opportunistic	25.0	24.0	4.5	29.0	6.4	1.48	1.34	20.4	11.0
Carlyle Realty VIII	2017	Opportunistic	18.0	15.2	11.1	11.0	10.1	1.39	1.34	21.5	11.0
Rockpoint VI	2019	Opportunistic	9.0	7.3	2.1	1.1	7.7	1.21	1.19	13.3	14.1
Berkshire Value V	2019	Value-Added	9.0	6.3	3.4	1.1	5.9	1.11	1.19	6.2	14.1
AEW Partners IX	2020	Opportunistic	10.0	7.0	3.0	0.0	7.5	1.07	1.11	6.9	11.0
TerraCap V	2020	Value-Added	10.0	10.4	0.0	1.0	10.6	1.12	1.11	10.2	11.0
PCCP Equity IX	2021	Opportunistic	10.0	6.1	3.9	0.0	6.4	1.04	1.08	NM	NM
Total			293.0	280.8	34.1	230.2	169.6	1.42		6.6	

By Strategy

Percent of FMV

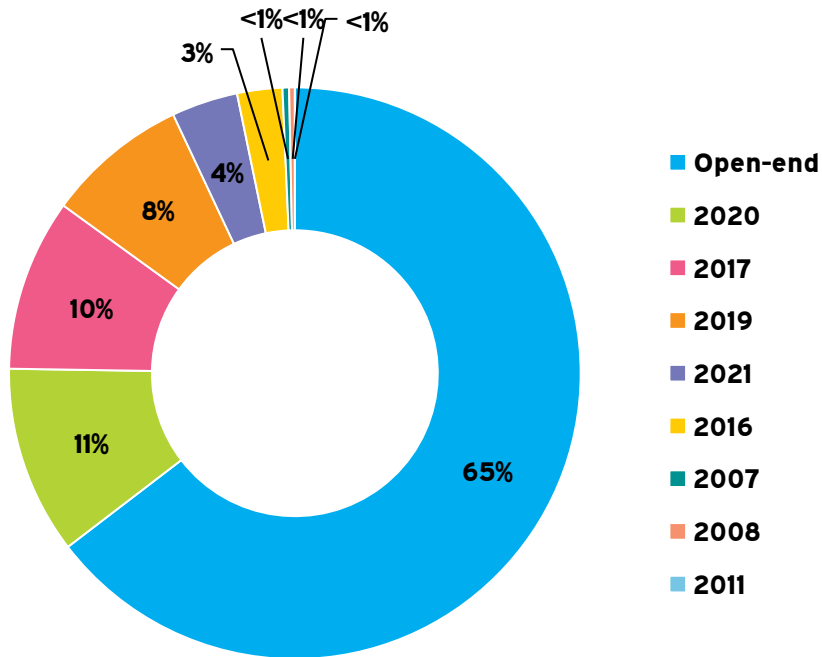


Percent of Exposure

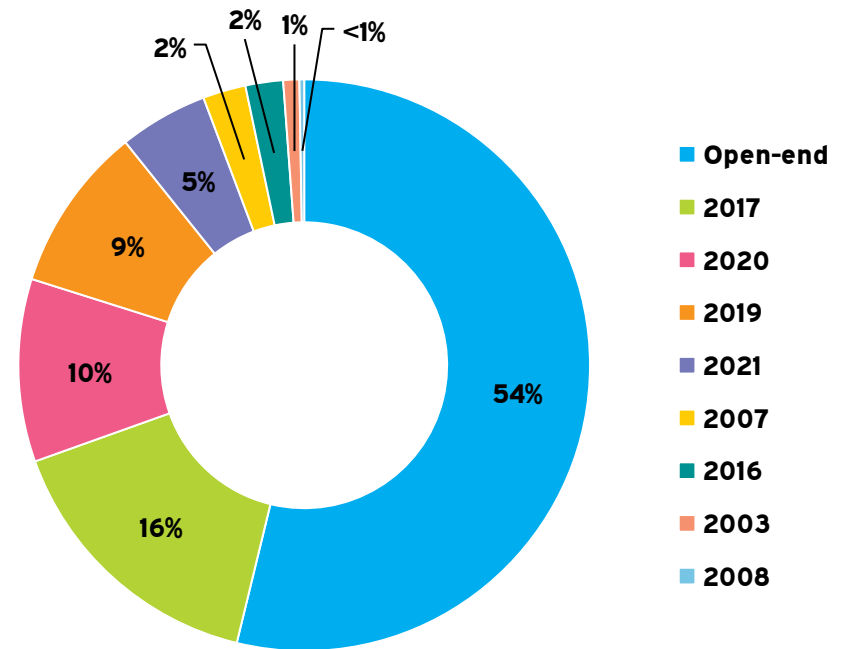


By Vintage

Percent of FMV

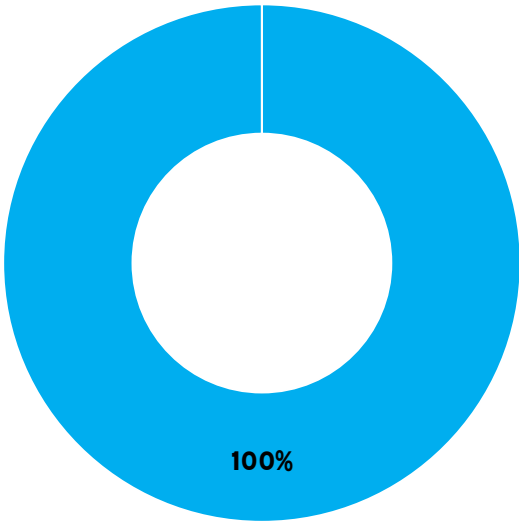


Percent of Exposure



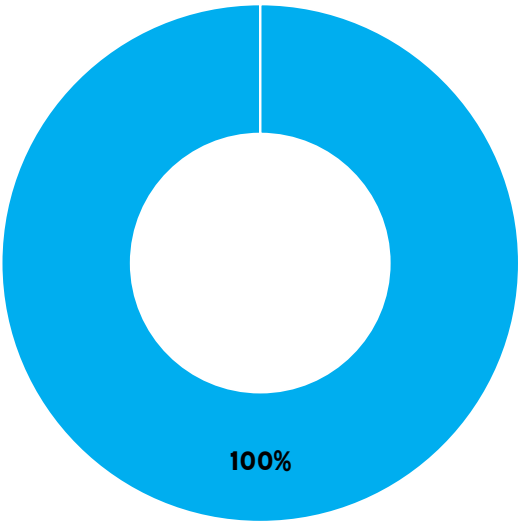
By Geographic Focus

Percent of FMV



■ North America

Percent of Exposure



■ North America

Current Issues

Portfolio Overlay Search Finalist Overview

Background

- In May, Meketa issued a Portfolio Overlay RFP, targeting a \$25 million mandate.
- At the June meeting, the board reviewed the 3 respondents and voted to interview Parametric as a finalist for this mandate.

Portfolio Overlay Overview

- Portfolio Overlay strategies are a logical fit for PCRA's portfolio. These solutions can help alleviate liquidity demands within a portfolio, reducing cash drag and the number of cash raising transactions needed, and thereby potentially saving the fund office time and transaction costs.
- An Overlay manager will strive to provide full market exposure to the client's investment policy by securitizing the current cash balances via futures and other derivative exposures.
- Given the nature of this mandate, performance is not tracked in the traditional ways. Instead, the manager and client work to create a customized benchmark (typically an equity, fixed income, or the portfolio Policy target benchmark), which will then be used to gauge the ability of the Overlay portfolio's positions to track this targeted benchmark.

Manager Search Finalists

Manager Respondents Composite Rating Overview

	Headquarters	Ranking
Parametric	Seattle, WA	Highly Advantageous

Parametric

Rating Criteria	Rating	Rationale
Overall	Highly Advantageous	
Organization	Highly Advantageous	Parametric is a wholly-owned subsidiary of Morgan Stanley, a publicly held company that is traded on the New York Stock Exchange (NYSE) under the ticker symbol MS. Parametric is a part of Morgan Stanley Investment Management, the asset management division of Morgan Stanley. On December 31, 2012, Parametric acquired The Clifton Group Investment Management Company, a firm founded in 1972 and based in Minneapolis, MN, which now serves as Parametric’s Minneapolis location. Parametric has been managing overlay programs for institutional investors since 1986. Overlay management has been and remains an area of focus, resource allocation, and growth for the firm.
Team	Highly Advantageous	The overlay program utilizes a team approach for portfolio management. The overlay strategy’s team of portfolio managers and research staff are integrated in an open and collaborative environment. A team of analysts is used to support the portfolio management team. The team is responsible for coordinating with custodial banks to receive client account information and producing daily tracking analytics used by the portfolio management team to implement the overlay program. The analysts also support the portfolio management team in providing performance summaries, assisting with client requests, and preparing custom analyses.
Investment Philosophy	Highly Advantageous	Parametric’s overlay service is a custom solution designed to help investors achieve policy objectives. The framework is set up to utilize an array of investment instruments designed to achieve customized client objectives through adherence to detailed investment guidelines. Broad overlay objectives include best execution and exposure management cost reduction, increased expected portfolio returns, liquidity, and flexibility, enhanced risk control during transitions and/or reallocations, comprehensive daily monitoring of fund exposures, reduced performance risk to policy benchmark, and ongoing communication & research support related to exposure management needs.
Investment Process	Highly Advantageous	Parametric’s philosophy is centered on providing a “best practices” method for maintaining desired asset class exposures through synthetic index overlay positions. The overlay service is designed to assist the client in maintaining desired market exposures in a manner that is non-disruptive to the existing investment management program. Specific focus is placed on accessing the appropriate derivative instruments which seek to satisfy the sometimes-competing goals of trading costs, capital efficiency, and liquidity. The process for establishing an overlay program begins with the creation of detailed Investment Policy Guidelines. Parametric works with the client to provide guidance on cash overlay and rebalancing best practices. Parametric has experience with numerous fund sponsors in successfully implementing overlay programs.
Fees	Advantageous	10 bps on first \$100mm, 8bps on next \$100mm, 5bps over \$200mm with minimum quarterly fee of \$18,750. Vehicle = SMA.

Summary

→ Meketa recommends considering Parametric for a \$25 million Portfolio Overlay mandate.

**Private Infrastructure Search
Respondent Review**

Background

- As of June 30, 2023, PCRA had roughly 9.6% of total assets invested in real assets.
 - Within the real assets bucket, private infrastructure investments represented approximately \$115 million (~8.7% of total assets).
- On July 14, 2023, following discussions with the Board, Meketa Investment Group issued an RFP for private infrastructure managers, with responses due on August 2, 2023.
- Meketa Investment Group received responses from 7 private infrastructure managers proposing 8 funds: 2 were deemed ineligible for consideration (1 fund has not yet launched and the other did not meet the minimum fund size).
- As such this review covers the 6 eligible funds, 3 open-end and 3 closed-end, with the following content:
 - Composite Rating Overview;
 - One-page Manager-Fund Profiles;
 - Summary and Recommendation.
- Meketa recommends the Board consider interviewing managers at an upcoming meeting.
 - IFM, the Association's current core open-end infrastructure fund manager.
 - Invite one or two managers to consider for a new \$10 million commitment to a closed-end infrastructure fund.

Manager Search Respondent Reviews

Manager Respondents Composite Rating Overview

Firm/Fund	Strategy	Score	Rationale
IFM Investors: IFM Global Infrastructure Fund	Open-End	Highly Advantageous	→ IFM is a leading global core infrastructure manager with a long history and robust track record. GIF's NAV as of June 30, 2023, was \$52.3 billion, representing 24 active investments. The Fund has displayed consistent historical performance, generating returns that fall in line with, and for some periods above, underwriting targets.
J.P. Morgan: J.P. Morgan Infrastructure Investment Fund	Open-End	Highly Advantageous	→ JPM's platform has a deep team of experienced professionals based out of New York and London. IIF's NAV as of March 31, 2023, was \$34.1 billion, representing 21 portfolio companies and 952 individual assets. Performance has met or exceeded targets over the last five years.
Global Infrastructure Partners: Global Infrastructure Partners V	Closed-End	Highly Advantageous	→ GIP is an established firm with an experienced team that has considerable expertise in its target sectors, historical performance at or above target returns, and an investment approach based on combining the industry expertise with industrial best practice business management. GIP V is targeting \$25 billion in capital commitments and has raised \$10.6 billion to date.
Stonepeak Partners Stonepeak Infrastructure Fund V	Closed-End	Highly Advantageous	→ Stonepeak is an established infrastructure manager with an extensive track record executing the proposed flagship strategy, with prior funds generating at or above target returns. SIF V is targeting \$15.0 billion in capital commitments with a first close expected in December 2023.
BlackStone, Inc.: Blackstone Infrastructure Partners	Open-End	Advantageous	→ Blackstone is an experienced core infrastructure manager with a strong early track record. BIP's NAV as of March 31, 2023, was \$21.3 billion, representing 13 active investments. Blackstone has scaled the vehicle quickly after first launching the product in 2019.
Brookfield: Brookfield Infrastructure Fund V	Closed-End	Advantageous	→ Brookfield is a longstanding institutional platform with a deep team of professionals and significant internal resources. BIF V is targeting \$25 billion of aggregate capital commitments with Brookfield committing as least 25% of the Fund. To date, BIF V has raised \$22.9 billion.

IFM Global Infrastructure Fund (“GIF”): Open-End

Rating Criteria	Score	Rationale												
Overall	Highly Advantageous	→ IFM is a leading global core infrastructure manager with a long history and robust track record. GIF’s NAV as of June 30, 2023 was \$52.3 billion, representing 24 active investments. The Fund has displayed consistent historical performance, generating returns that fall in line with, and for some periods above, underwriting targets.												
Organization	Advantageous	<p>→ IFM is a privately-owned, global asset management firm founded in 1994 with AUM of approximately \$143.2 billion as of June 30, 2023 across infrastructure, debt, listed equity, and private equity strategies.</p> <p>→ The firm is based out of 10 international offices in Australia, Europe, North America, and Asia.</p> <p>→ The firm is owned by 17 Australian pension funds.</p>												
Team	Highly Advantageous	<p>→ The infrastructure team comprises more than 120 investment and asset management professionals, with significant prior experience and strong continuity at the firm.</p> <p>→ The GIF investment team has 40 professionals in North America, 40 in Europe, seven in Asia, and 37 in Australia, including the Global Head of Infrastructure.</p>												
Investment Philosophy & Process	Highly Advantageous	<p>→ GIF pursues global investments in core infrastructure assets that display monopoly-like characteristics, strong market positions, reliable regulatory environments, and high barriers to entry, limited demand- elasticity, exposure to inflation and economic growth, and long lives.</p> <p>→ The investment team pursues large scale opportunities across several sectors including Transportation, Energy Midstream, Communications, and Utilities, among others.</p> <p>→ GIF targets a global portfolio with established regulatory environments and strong “rule-of-law”.</p>												
Performance ¹	Highly Advantageous	<table border="1"> <thead> <tr> <th></th> <th>1-Year %</th> <th>3-Year %</th> <th>5-Year %</th> <th>10-Year %</th> <th>Since Inception %</th> </tr> </thead> <tbody> <tr> <td>Net Time Weighted Returns</td> <td>9.7</td> <td>12.1</td> <td>10.7</td> <td>11.0</td> <td>9.2</td> </tr> </tbody> </table>		1-Year %	3-Year %	5-Year %	10-Year %	Since Inception %	Net Time Weighted Returns	9.7	12.1	10.7	11.0	9.2
	1-Year %	3-Year %	5-Year %	10-Year %	Since Inception %									
Net Time Weighted Returns	9.7	12.1	10.7	11.0	9.2									
Fees	Advantageous	→ Terms: 0.77% annual management fee based on net asset value; 8.0% preferred return; 10.0% carried interest.												

¹ As of March 31, 2023.

J.P. Morgan Infrastructure Investment Fund (“JPM IIF”): Open-End

Rating Criteria	Score	Rationale																								
Overall	Highly Advantageous	→ JPM’s platform has a deep team of experienced professionals based out of New York and London. IIF’s NAV as of March 31, 2023 was \$34.1 billion, representing 21 portfolio companies and 952 individual assets. Performance has met or exceeded targets over the last five years.																								
Organization	Highly Advantageous	<p>→ J.P. Morgan Asset Management (“JPM”) is a global asset management firm with AUM of approximately \$2.6 trillion.</p> <p>→ The firm’s infrastructure platform features a deep team of professionals based out of office in New York and London and is supported by resources and personnel across the greater JPM organization.</p> <p>→ The Infrastructure Investment Fund was formed in 2006 and has deployed capital in 21 companies and 952 assets across 28 countries and 15 sub-sectors.</p>																								
Team	Highly Advantageous	<p>→ The infrastructure investment team includes 25 senior professionals. The team is led by three Managing Directors with robust backgrounds and long tenure at the firm.</p> <p>→ The infrastructure platform receives additional support from dedicated personnel across finance, accounting, research, and operations.</p>																								
Investment Philosophy & Process	Highly Advantageous	<p>→ IIF executes a differentiated core strategy focused on control platform investments through the aggregation of mature infrastructure assets with stable cash flows, monopolistic regulatory frameworks, and long-term revenue contracts.</p> <p>→ Regional exposure is concentrated in developed countries in North America, Western Europe, and Australia. The investment team seeks to maintain a diversified portfolio with widespread exposure to several sectors.</p> <p>→ The Fund targets majority and control positions to implement its business plans and other strategic initiatives via a disciplined and active asset management approach.</p>																								
Performance ²	Advantageous	<table border="1"> <thead> <tr> <th></th> <th>1-Year %</th> <th>3-Year %</th> <th>5-Year %</th> <th>10-Year %</th> <th>Since Inception %</th> </tr> </thead> <tbody> <tr> <td>Gross TWR (Local Currency)</td> <td>10.4</td> <td>9.4</td> <td>9.1</td> <td>9.0</td> <td>8.4</td> </tr> <tr> <td>Net TWR (Unhedged)</td> <td>6.5</td> <td>7.8</td> <td>5.9</td> <td>5.8</td> <td>4.1</td> </tr> <tr> <td>Net TWR (Hedged)³</td> <td>10.0</td> <td>8.2</td> <td>NA</td> <td>NA</td> <td>8.3</td> </tr> </tbody> </table>		1-Year %	3-Year %	5-Year %	10-Year %	Since Inception %	Gross TWR (Local Currency)	10.4	9.4	9.1	9.0	8.4	Net TWR (Unhedged)	6.5	7.8	5.9	5.8	4.1	Net TWR (Hedged) ³	10.0	8.2	NA	NA	8.3
	1-Year %	3-Year %	5-Year %	10-Year %	Since Inception %																					
Gross TWR (Local Currency)	10.4	9.4	9.1	9.0	8.4																					
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Net TWR (Hedged) ³	10.0	8.2	NA	NA	8.3																					
Fees	Advantageous	→ Terms: 0.86% annual management fee based on net asset value; 7.0% preferred return; 15.0% carried interest.																								

² As of March 31, 2023.

³ JPM launched a USD-hedge vehicle in 2018.

Global Infrastructure Partners V (“GIP V”): Closed-End

Rating Criteria	Score	Rationale																									
Overall	Highly Advantageous	→ GIP is an established firm with an experienced team that has considerable expertise in its target sectors, historical performance at or above target returns, and an investment approach based on combining the industry expertise with industrial best practice business management. GIP V is targeting \$25 billion in capital commitments and has raised \$10.6 billion to date.																									
Organization	Highly Advantageous	<p>→ GIP was founded in 2006 and is a private investment firm focused on global infrastructure equity and debt assets.</p> <p>→ GIP is led by Adebayo Ogunlesi, Chairman and CEO, Michael McGhee, Deputy Chairman, and Raj Rao, President and COO. The firm has 316 professionals across seven global offices.</p> <p>→ The firm currently manages AUM of approximately \$100 billion, including \$40 billion from its flagship (value-added) fund vehicles.</p>																									
Team	Highly Advantageous	<p>→ The firm currently comprises 170 investment professionals, 39 Business Improvement Team members, and 64 operating professionals located across offices in New York, Stamford, London, Sydney, India, Hong Kong, and South Korea.</p> <p>→ GIP is led by 15 Partners, with 12 having been at the firm for over 10 years.</p>																									
Investment Philosophy & Process	Highly Advantageous	<p>→ GIP V will utilize a value-add infrastructure strategy targeting control-oriented investments in high quality businesses of scale through proprietary sourcing.</p> <p>→ The Fund is expected to target investments across Energy, Transportation, Digital, and Water & Waste with a primary focus in North America, Europe, Australia, and Asia.</p> <p>→ The firm seeks to implement an active management approach led by the Business Improvement Team, focused on applying superior management practices to achieve their risk adjusted returns.</p> <p>→ GIP V is targeting gross returns of 15% to 20% IRR and Net returns of 11% to 15%.</p>																									
Performance ⁴	Highly Advantageous	<table border="1"> <thead> <tr> <th></th> <th>Vintage Year</th> <th>Commitments (\$B)</th> <th>Gross IRR %</th> <th>Net IRR %</th> </tr> </thead> <tbody> <tr> <td>GIP I</td> <td>2006</td> <td>5.6</td> <td>23</td> <td>17</td> </tr> <tr> <td>GIP II</td> <td>2012</td> <td>8.3</td> <td>24</td> <td>16</td> </tr> <tr> <td>GIP III</td> <td>2016</td> <td>15.8</td> <td>17</td> <td>12</td> </tr> <tr> <td>GIP IV</td> <td>2019</td> <td>22.1</td> <td>13</td> <td>5</td> </tr> </tbody> </table>		Vintage Year	Commitments (\$B)	Gross IRR %	Net IRR %	GIP I	2006	5.6	23	17	GIP II	2012	8.3	24	16	GIP III	2016	15.8	17	12	GIP IV	2019	22.1	13	5
	Vintage Year	Commitments (\$B)	Gross IRR %	Net IRR %																							
GIP I	2006	5.6	23	17																							
GIP II	2012	8.3	24	16																							
GIP III	2016	15.8	17	12																							
GIP IV	2019	22.1	13	5																							
Fees	Advantageous	→ Blended Rate with tiers ranging from 1.75% down to 1.00% on committed/invested, and a minimum fee of 1.30%; 8.0% preferred return; 20.0% carried interest.																									

⁴ As of March 31, 2022.

Stonepeak Infrastructure Fund V (“SIF V”): Closed-End

Rating Criteria	Score	Rationale																									
Overall	Highly Advantageous	→ Stonepeak is an established infrastructure manager with an extensive track record executing the proposed flagship strategy, with prior funds generating at or above target returns. SIF V is targeting \$15.0 billion in capital commitments with a first close expected in December 2023.																									
Organization	Advantageous	<p>→ Stonepeak was founded in 2011 by Michael Dorrell and Trent Vichie, who had worked on infrastructure investments together most recently at The Blackstone Group, and previously at The Macquarie Group.</p> <p>→ The firm currently manages \$57.1 billion of assets under management under seven investment strategies, including its flagship value-add infrastructure vehicle, led by a 20-member leadership group with experience across North America, Europe, Asia Pacific, and the Middle East.</p>																									
Team	Highly Advantageous	<p>→ The Stonepeak team currently comprises 218 professionals, including a 108 dedicated investment team members, based out of six offices in New York (headquarters), Houston, Hong Kong, London, Sydney, and Singapore.</p> <p>→ Stonepeak is led by Co-Founder, CEO, and Chairman Michael Dorrell and includes five Executive Committee members, 10 Senior Managing Directors, 15 Managing Directors, and 15 Principals.</p> <p>→ Additional support is provided by a dedicated group of 24 Operating Partners.</p>																									
Investment Philosophy & Process	Highly Advantageous	<p>→ Fund IV will represent a continuation of the firm’s flagship value-add strategy, focusing on Transportation and Logistics, Energy/Energy Transition, and Communications infrastructure investments primarily within North America.</p> <p>→ Stonepeak typically seeks majority control or significant governance rights with a focus on preservation of invested capital in a severe downside case scenario. The Fund will also aim to execute an asset management strategy focused on a hands-on approach to operational improvements.</p> <p>→ Fund IV will target a mid-teens gross IRR (12% net IRR).</p>																									
Performance ⁵	Highly Advantageous	<table border="1"> <thead> <tr> <th></th> <th>Vintage Year</th> <th>Commitments (\$B)</th> <th>Gross IRR %</th> <th>Net IRR %</th> </tr> </thead> <tbody> <tr> <td>SIF I</td> <td>2012</td> <td>1.6</td> <td>14</td> <td>10</td> </tr> <tr> <td>SIF II</td> <td>2015</td> <td>3.5</td> <td>18</td> <td>14</td> </tr> <tr> <td>SIF III</td> <td>2017</td> <td>7.2</td> <td>22</td> <td>17</td> </tr> <tr> <td>SIF IV</td> <td>2020</td> <td>14.0</td> <td>18</td> <td>9</td> </tr> </tbody> </table>		Vintage Year	Commitments (\$B)	Gross IRR %	Net IRR %	SIF I	2012	1.6	14	10	SIF II	2015	3.5	18	14	SIF III	2017	7.2	22	17	SIF IV	2020	14.0	18	9
	Vintage Year	Commitments (\$B)	Gross IRR %	Net IRR %																							
SIF I	2012	1.6	14	10																							
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SIF III	2017	7.2	22	17																							
SIF IV	2020	14.0	18	9																							
Fees	Advantageous	→ Terms: 1.5% annual management fee on committed/invested; 8.0% preferred return; 20% carried interest.																									

⁵ As of March 31, 2023.

Blackstone Infrastructure Partners (“BIP”): Open-End

Rating Criteria	Score	Rationale																		
Overall	Advantageous	→ Blackstone is an experienced core infrastructure manager with a strong early track record. BIP’s NAV as of March 31, 2023 was \$21.3 billion, representing 13 active investments. Blackstone has scaled the vehicle quickly after first launching the product in 2019.																		
Organization	Advantageous	<ul style="list-style-type: none"> → Blackstone Group is a publicly traded global investment firm founded in 1985. → Private infrastructure is managed as part of the alternative asset management businesses which includes private equity, energy, real estate, hedge funds, non-investment grade credit, secondary funds, and multi-asset class exposures falling outside of other funds’ mandates. → The firm is headquartered in New York, with nearly 4,600 professionals in 27 offices worldwide. → Blackstone has total assets under management of \$1,001 billion. 																		
Team	Highly Advantageous	<ul style="list-style-type: none"> → Led by the Global Head of Infrastructure and Senior Managing Director, Sean Klimczak, BIP’s investment team totals 42 professionals across two offices. A majority of the investment team is located in Blackstone’s New York office with the remainder in their London office. → The investment team is supported by five dedicated portfolio operations and asset management professionals and nine operations team members. → BIP can also take advantage of Blackstone’s shared resources including the Portfolio Operations Group and Senior Advisors exclusive to Blackstone. Shared resources are used by BIP during sourcing, diligence, and portfolio management. 																		
Investment Philosophy & Process	Advantageous	<ul style="list-style-type: none"> → BIP will pursue, on average, a core-plus large-scale infrastructure strategy focused on four sectors. The Fund expects to invest average equity checks of \$1.0 billion to \$1.5 billion. → The Fund will seek to invest across four primary sectors: Energy Infrastructure, Transportation, Digital Infrastructure, and Water & Waste. → BIP will focus on assets with the following characteristics: critical long-lived assets; high barriers to entry; sustainable cash flow; and large or complex investments limiting competition. 																		
Performance ⁶	Highly Advantageous	<table border="1"> <thead> <tr> <th></th> <th>1-Year %</th> <th>3-Year %</th> <th>5-Year %</th> <th>10-Year %</th> <th>Since Inception %</th> </tr> </thead> <tbody> <tr> <td>Gross Time Weighted Returns</td> <td>13.7</td> <td>26.7</td> <td>-</td> <td>-</td> <td>15.2</td> </tr> <tr> <td>Net Time Weighted Returns</td> <td>11.4</td> <td>22.1</td> <td>-</td> <td>-</td> <td>10.3</td> </tr> </tbody> </table>		1-Year %	3-Year %	5-Year %	10-Year %	Since Inception %	Gross Time Weighted Returns	13.7	26.7	-	-	15.2	Net Time Weighted Returns	11.4	22.1	-	-	10.3
	1-Year %	3-Year %	5-Year %	10-Year %	Since Inception %															
Gross Time Weighted Returns	13.7	26.7	-	-	15.2															
Net Time Weighted Returns	11.4	22.1	-	-	10.3															
Fees	Advantageous	→ Terms: 1.0% annual management fee based on net asset value; 12.5% carry subject to a 6.0% hurdle.																		

⁶ As of March 31, 2023.

Brookfield Infrastructure Fund V (“BIF V”): Closed-End

Rating Criteria	Score	Rationale																									
Overall	Advantageous	→ Brookfield is a longstanding institutional platform with a deep team of professionals and significant internal resources. BIF V is targeting \$25 billion of aggregate capital commitments with Brookfield committing as least 25% of the Fund. To date, BIF V has raised \$22.9 billion.																									
Organization	Advantageous	<p>→ Brookfield is a publicly-traded global asset management firm with AUM of approximately \$825 billion as of March 31, 2023. The firm currently manages investments across Renewable Power and Transition, Infrastructure, Private Equity, Real Estate, and Credit & Insurance Solutions businesses.</p> <p>→ Brookfield has approximately 440 infrastructure professionals and 56,000 operating employees across five continents.</p>																									
Team	Highly Advantageous	<p>→ Brookfield’s flagship infrastructure funds are managed by Brookfield’s global infrastructure and power business with approximately 440 infrastructure professionals.</p> <p>→ The senior investment team includes 24 professionals including 13 Managing Partners and six Operating Partners.</p> <p>→ The investment team receives ongoing support and additional resources provided across the greater Brookfield organization, including professionals with operating and engineering skills and experience.</p>																									
Investment Philosophy & Process	Highly Advantageous	<p>→ BIF V represents a continuation of the core-plus/value add strategy implemented in its predecessor funds investing in large scale direct infrastructure investments.</p> <p>→ The Fund will target five sectors within infrastructure: Utilities, Transportation, Renewable Power, Midstream, and Data Infrastructure. BIF will focus on developed countries in North America, South America, Europe, and Asia Pacific.</p> <p>→ BIF V focuses on value enhancement through operating expertise that leverages and deploys resources from Brookfield’s operating businesses.</p>																									
Performance ⁷	Advantageous	<table border="1"> <thead> <tr> <th></th> <th>Vintage Year</th> <th>Commitments (\$B)</th> <th>Gross IRR %</th> <th>Net IRR %</th> </tr> </thead> <tbody> <tr> <td>Brookfield Infrastructure I</td> <td>2009</td> <td>2.7</td> <td>14</td> <td>12</td> </tr> <tr> <td>Brookfield Infrastructure II</td> <td>2013</td> <td>7.0</td> <td>13</td> <td>11</td> </tr> <tr> <td>Brookfield Infrastructure III</td> <td>2016</td> <td>14.0</td> <td>16</td> <td>13</td> </tr> <tr> <td>Brookfield Infrastructure IV</td> <td>2019</td> <td>20.0</td> <td>19</td> <td>14</td> </tr> </tbody> </table>		Vintage Year	Commitments (\$B)	Gross IRR %	Net IRR %	Brookfield Infrastructure I	2009	2.7	14	12	Brookfield Infrastructure II	2013	7.0	13	11	Brookfield Infrastructure III	2016	14.0	16	13	Brookfield Infrastructure IV	2019	20.0	19	14
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Brookfield Infrastructure IV	2019	20.0	19	14																							
Fees	Advantageous	→ Blended Rate with tiers ranging from 1.75% down to 1.00% on committed/invested; 8.0% preferred return; 20.0% carried interest.																									

⁷ As of March 31, 2023.

Summary and Recommendation

- To maintain PCRA's 6% target allocation to real assets, as well as to maintain appropriate strategy and style diversification, Meketa Investment Group recommends the following:
- Consider interviewing two to three managers at an upcoming meeting.

Appendices

Investment Manager Status Report

Overview of Watch List Policies

- The Board is responsible for selecting and monitoring investment managers on the Association's roster and recognizes the importance of diligent manager oversight.
- The Board must be informed of changes in strategy, personnel, and organizational structure, to effectively evaluate the Association's managers.
- However, overly aggressive "management" of managers (i.e., rapid hiring and firing of managers) can be counterproductive.
 - Achieving superior returns requires patience. Frequent changes in managers usually results in poor performance, since each change can incur substantial transaction costs, as an entire portfolio of securities is restructured.
- Watch List Policies represent an intermediate state of heightened oversight, triggered by any change that could jeopardize an Investment Manager's ability to successfully fulfill their role for the Association.
- This document presents an overview of the Association's current Watch List Policy and our recommendations.

Watch List and Probation Policy

In-Compliance

→ The investment manager is acting in accordance with its investment guidelines.

Watch List

→ An elevated state of review. There is a problem with performance, an unusual change in characteristics, an alternation in management style or key investment personnel, and/or any irregularities that diminish the Board's confidence in the manager.

Probation

→ An elevated state of Watch List status. Based on continued concern with one or more of the alert issues, failure for a manager to improve upon stated issues within a time period justifies termination.

Termination

→ The Board has voted to terminate the manager.

PCRA Investment Policy Statement Language: Portfolio Monitoring Procedures

- The Trustees will meet with the Consultant no less frequently than quarterly to review portfolio performance, review portfolio weights relative to target weights and managers' performance. Further, the Board will endeavor to meet with each of its investment managers in accordance with PERAC requirements.
- The investment managers managing separate accounts on behalf of the System will be issued investment manager guidelines and they will be monitored at two levels of contract review: Watchlist and Probation, the latter being a more heightened level of review.
- The Consultant will recommend to the Board when a manager should be placed on or removed from Watchlist or Probation. When an investment manager is placed on the Watchlist/Probation, it is effective immediately. There is no minimum time requirement on the Watchlist/Probation before a termination may be made. An investment manager's contract may be terminated for any reason at any time, whether on Watchlist/Probation or not.
- A representative listing of potential reasons an investment manager may be added to Watchlist/Probation is detailed on the next page. During an investment manager's tenure on the Watchlist/Probation, the investment consultant will provide the Board with regular reports, including background information and support, about the progress the investment manager is or is not making. An investment manager may be removed from heightened alert if the Board believes the issues that placed the firm on the Watchlist/Probation are resolved.
- Should the manager's performance not improve over a reasonable time period, the Consultant will recommend further action and possible termination after a careful review of the manager's performance, portfolio structure and the market environment. Before a manager is officially dismissed, the Consultant will recommend to the Board a plan of action for managing (internally, externally, or in combination) or liquidating the assets.
- Circumstances may warrant that the Trustees take immediate action to terminate a manager. Therefore, the Trustees reserve the right to bypass the course outlined above and remove a manager immediately if deemed prudent and in the best interests of the Association participants.

PCRA Investment Policy Statement Language: Watch List and Probation Policy**Organizational Issues**

- Change in ownership or control of the company
- Significant change in team composition or responsibilities
- Material change in the business organization of the investment manager
- Departure of significant personnel

Performance

- 1, 3 and 5-year performance net of fees below benchmark
- 1, 3 and 5-year performance net of fees below peers (below median of relevant peer universe)
- Performance inconsistent with the investment manager's style and risk controls

Investment Process

- Deviation from investment style
- Deviation from risk controls

Other

- Material guideline violation not brought to our attention by the investment manager
- Material guideline violation not sufficiently explained by the investment manager
- Failure to comply with terms of contract
- Any extraordinary regulatory action or other proceeding affecting the investment
- Failure to abide by Massachusetts law and investment restrictions
- Unsatisfactory client service

Active Manager Roster¹

Investment Manager	Recommendation as of 6/30/23
Fisher Midcap Value	In-Compliance
Newton Small Cap Growth (formerly Mellon)	In-Compliance
Vulcan Partners Small Cap Value	In-Compliance
Systematic Small Cap FCF	In-Compliance
Aristotle International Equity	In-Compliance
Walter Scott International Equity	In-Compliance
ABS Emerging Markets	In-Compliance
Driehaus Emerging Markets Growth	In-Compliance
First Eagle Global Value	In-Compliance
Kopernik Global All Cap	In-Compliance
Lee Munder Global Multi-cap	In-Compliance
Wellington Durable Enterprises	In-Compliance

¹ Excluding illiquid asset classes of private equity and non-core real estate.

Active Manager Roster¹ (con't)

Investment Manager	Recommendation As of 6/30/23
Lord Abbett Short Duration	In-Compliance
Lord Abbett Core Fixed Income	In-Compliance
Rhumblin Tips	In-Compliance
Eaton Vance High Yield	In-Compliance
First Eagle Bank Loan Select (Formerly THL Bank Loan Select)	Watch List (performance)
Manulife Strategic Fixed Income	In-Compliance
Mesirow High Yield	In-Compliance
Eaton Vance Emerging Market Debt	In-Compliance
ABS Offshore SPC - Global Segregated	Watch List (performance)
Entrust Special Opportunities Fund III, Ltd	Watch List (performance)
Old Farm Partners Master Fund	In-Compliance
EnTrustPermal Special Opportunities Evergreen Fund	In-Compliance
TA Realty Core Property Fund	In-Compliance
JPMorgan Strategic Property	In-Compliance
IFM Global Infrastructure	In-Compliance

¹ Excluding illiquid asset classes of private equity and non-core real estate.

Economic and Market Update

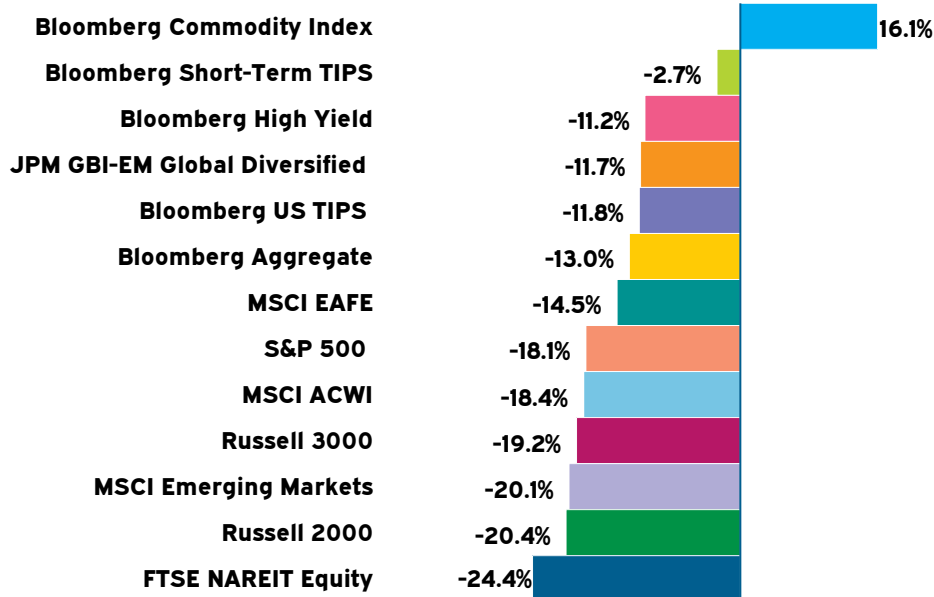
Data As of July 31, 2023

Commentary

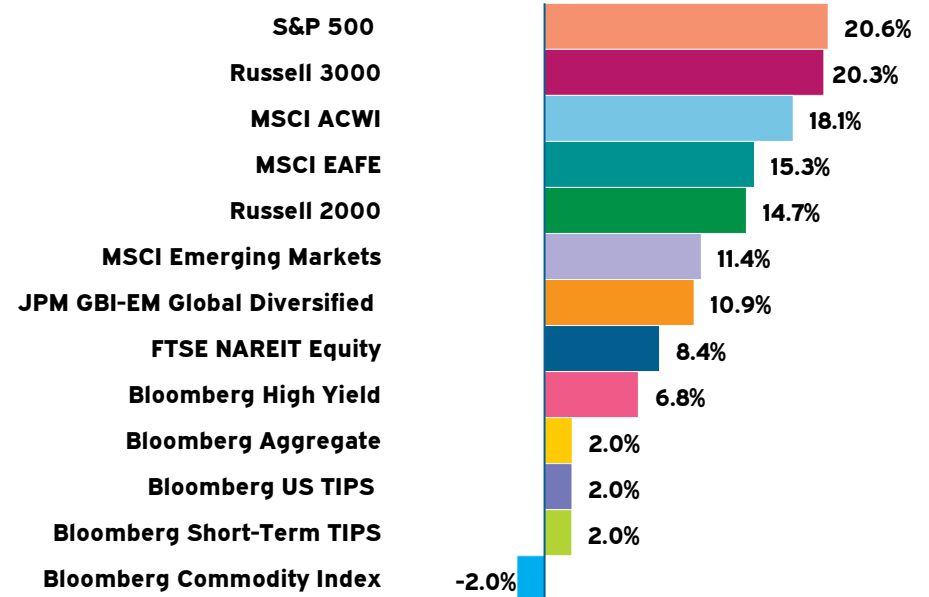
- Riskier assets continued to gain in July as economic data remained resilient while inflation receded. Except for commodities, most public market asset classes remained positive for the year, with US equities leading the way.
- After a pause in June, the Federal Reserve increased interest rates in July by 0.25% to a range of 5.25% - 5.5%, the highest level in over two decades. Markets are largely expecting that this will be the Fed's final rate increase.
 - US equity markets (Russell 3000 index) continued to rise in July (+3.6%), bringing the year-to-date gains to 20.3%. The technology sector remains the key driver of results this year, helped by artificial intelligence optimism.
 - Non-US developed equity markets also rose in July (MSCI EAFE +3.2%), but they continue to trail US markets year-to-date (15.3% versus 20.3%).
 - Emerging market equities had the strongest results in July, gaining 6.2%, driven by optimism over additional policy support in China. They continue to trail developed market equities year-to-date though, returning 11.4%, due partly to China's weak results for the period.
 - Generally, corporate bonds outperformed government bonds for the month on continued risk appetite. Overall, interest rates increased slightly in July, leading to a small decline in the broad US bond market (-0.1%). The index remains positive (+2.0%) year-to-date on declining inflation and expectations for the Fed to end their rate hikes soon.
- This year, the paths of inflation and monetary policy, slowing global growth, and the war in Ukraine will all be key.

Index Returns¹

2022



YTD



→ After a particularly difficult 2022, most public market assets are up thus far in 2023, led by developed market equities.

→ Risk sentiment has been supported by expectations that policy tightening could be ending soon, as inflation continues to fall, while growth has remained relatively resilient.

¹ Source: Bloomberg. Data is as of July 31, 2023.

Domestic Equity Returns¹

Domestic Equity	July (%)	Q2 (%)	YTD (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)
S&P 500	3.2	8.7	20.6	13.0	13.7	12.2	12.7
Russell 3000	3.6	8.4	20.3	12.6	13.1	11.4	12.1
Russell 1000	3.4	8.6	20.7	12.9	13.2	11.9	12.4
Russell 1000 Growth	3.4	12.8	33.4	17.3	12.2	15.2	15.5
Russell 1000 Value	3.5	4.1	8.8	8.3	14.1	8.0	9.0
Russell MidCap	4.0	4.8	13.3	8.7	11.8	8.8	10.1
Russell MidCap Growth	3.0	6.2	19.4	13.0	6.0	9.9	11.2
Russell MidCap Value	4.4	3.9	9.8	6.2	14.9	7.2	8.9
Russell 2000	6.1	5.2	14.7	7.9	12.0	5.1	8.2
Russell 2000 Growth	4.7	7.1	18.9	11.6	6.5	4.8	8.5
Russell 2000 Value	7.5	3.2	10.2	3.9	17.5	4.7	7.4

US Equities: Russell 3000 Index rose 3.6% in July and 20.3% YTD.

- Equity investors continue to express optimism that the Federal Reserve’s monetary tightening will not have serious impacts on earnings. Though corporate profits were down compared to a year ago, approximately 80% of S&P 500 companies that reported second quarter results in July exceeded earnings expectations.
- In contrast to the year-to-date trend, value stocks outperformed growth stocks in July, particularly in small cap, driven by outperformance in financials and energy. So far in 2023, growth has significantly outperformed value driven by optimism over artificial intelligence.
- Small cap stocks outperformed large cap stocks in July, but trail for the full year, again due to the strength of the technology sector. The July dynamic was driven partially by the outperformance of small cap banks after regulators announced higher capital requirements for larger banks.

¹ Source: Bloomberg. Data is as of July 31, 2023.

Foreign Equity Returns¹

Foreign Equity	July (%)	Q2 (%)	YTD (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)
MSCI ACWI ex. US	4.1	2.4	13.9	13.4	7.1	3.9	4.7
MSCI EAFE	3.2	3.0	15.3	16.8	9.3	4.5	5.2
MSCI EAFE (Local Currency)	1.7	4.3	14.0	13.6	13.0	6.2	7.4
MSCI EAFE Small Cap	4.4	0.6	10.2	7.9	6.1	2.1	6.0
MSCI Emerging Markets	6.2	0.9	11.4	8.3	1.5	1.7	3.5
MSCI Emerging Markets (Local Currency)	5.3	1.7	11.1	8.6	3.0	3.7	6.1
MSCI China	10.8	-9.7	4.7	1.8	-9.9	-2.8	3.7

Foreign Equity: Developed international equities (MSCI EAFE) rose 3.2% in July bringing the YTD gains to 15.3%. Emerging market equities (MSCI EM) rose 6.2% in July, rising 11.4% YTD.

- International equities also had strong results in July, led by China and emerging markets more broadly.
- Japanese equities continued their steady rise, especially in the mid- and small-cap sectors. Eurozone and UK equities were broadly supported by falling inflation and solid corporate fundamentals.
- After a disappointing reopening of the economy, China’s government announced additional support to stimulate consumption and bolster the real estate sector, leading to double-digit gains for the month (10.8%). India underperformed as higher food costs kept inflation elevated.

¹ Source: Bloomberg. Data is as of July 31, 2023.

Fixed Income Returns¹

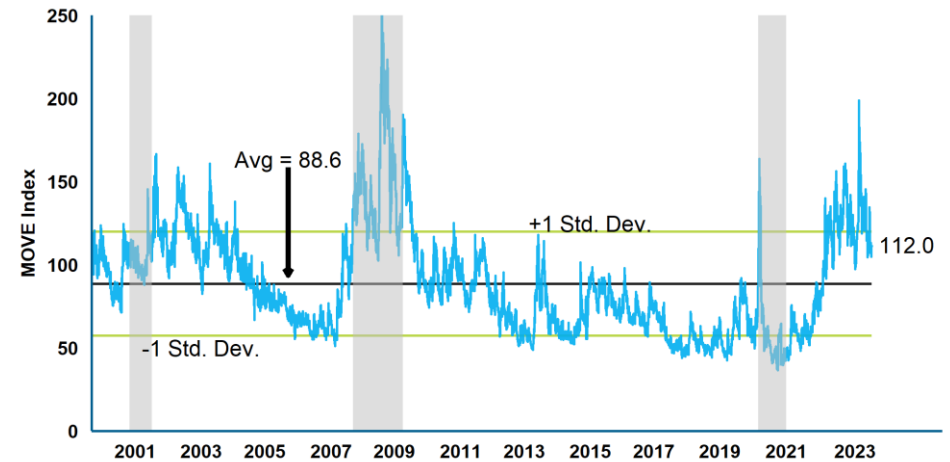
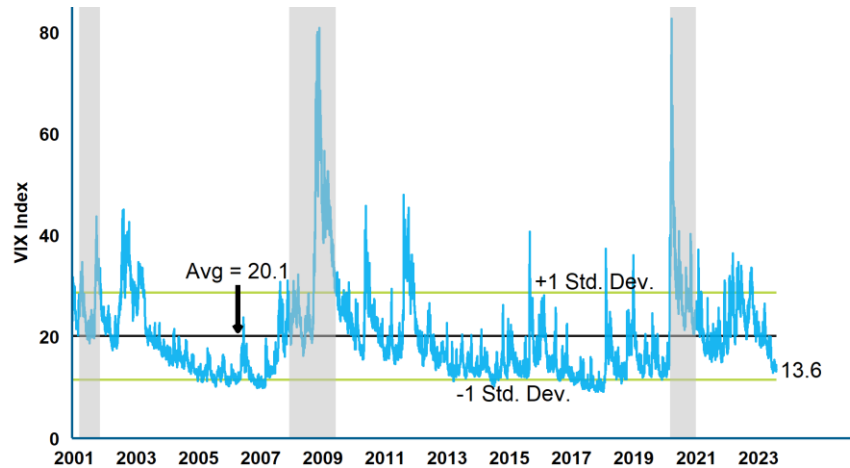
Fixed Income	July (%)	Q2 (%)	YTD (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)	Current Yield (%)	Duration (Years)
Bloomberg Universal	0.1	-0.6	2.4	-2.4	-4.0	1.0	1.8	5.2	6.2
Bloomberg Aggregate	-0.1	-0.8	2.0	-3.4	-4.5	0.7	1.5	4.9	6.5
Bloomberg US TIPS	0.1	-1.4	2.0	-5.4	-0.8	2.6	2.0	4.6	6.9
Bloomberg Short-term TIPS	0.5	-0.7	2.0	-1.2	2.3	2.9	1.7	5.3	2.7
Bloomberg High Yield	1.4	1.7	6.8	4.4	2.0	3.4	4.4	8.3	4.0
JPM GBI-EM Global Diversified (USD)	2.9	2.5	10.9	14.3	-1.5	0.5	-0.2	6.5	5.0

Fixed Income: The Bloomberg Universal rose 0.1% in July remaining positive YTD (+2.4%), as inflation continues to decline, and yields remain high.

- In July, riskier bonds continued to outperform government bonds on optimism over a potential soft landing of the economy.
- The broad US bond market (Bloomberg Aggregate) declined slightly for the month (-0.1%) while the TIPS index, and the short-term TIPS index both posted small gains. All three indexes now have the same results so far in 2023.
- In the risk-on environment, high yield bonds rose 1.4% for the month, while emerging market bonds were the top performer, up 2.9%. The two asset classes remain the top performers for the year.

¹ Source: Bloomberg. JPM GBI-EM data is from InvestorForce. Data is as of July 31, 2023. The yield and duration data from Bloomberg is defined as the index's yield to worst and modified duration respectively.

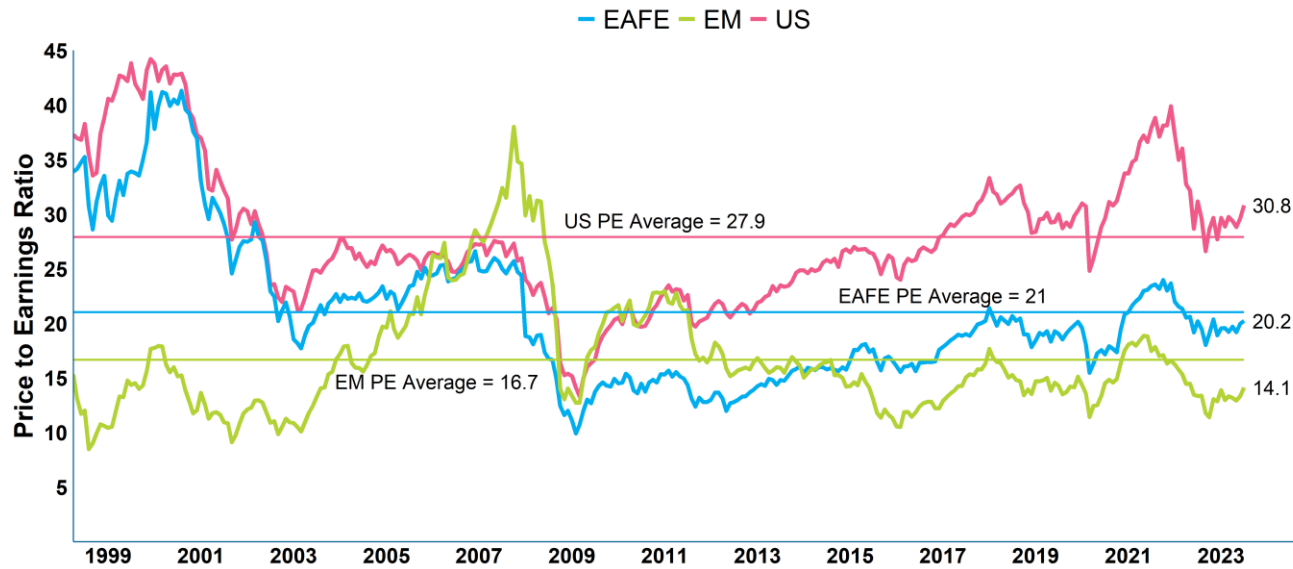
Equity and Fixed Income Volatility¹



- Volatility in equities (VIX) remains well below the historical average as investors continue to anticipate the end of the Fed's policy tightening.
- The bond market continues to be volatile after last year's historic losses and due to policy uncertainty and previous issues in the banking sector. The MOVE (fixed income volatility) remains well above (112.0) its long-run average (88.6), but off its recent peak during the heart of the banking crisis.

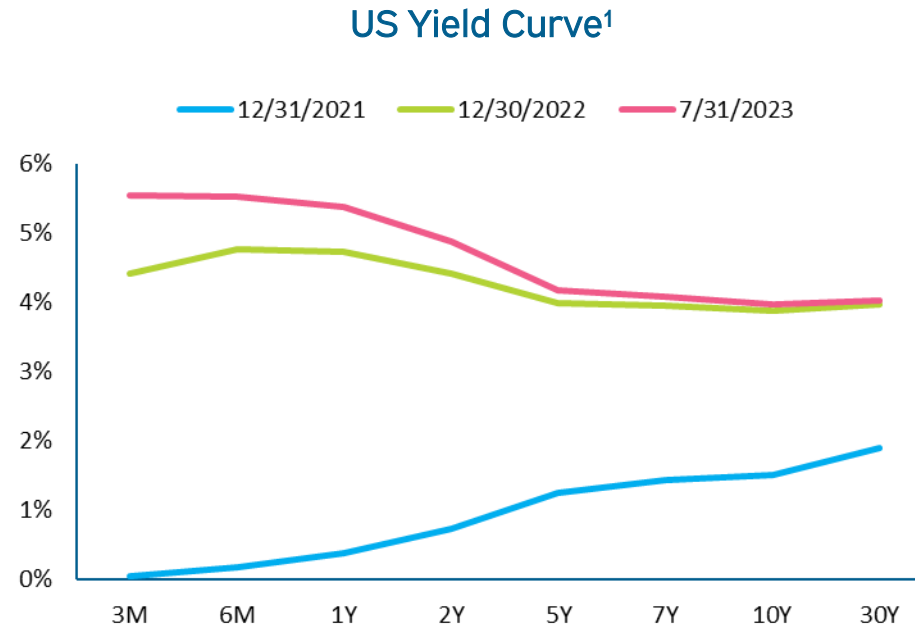
¹ Equity and Fixed Income Volatility – Source: Bloomberg. Implied volatility as measured using VIX Index for equity markets and the MOVE Index to measure interest rate volatility for fixed income markets. Data is as of July 2023. The average line indicated is the average of the VIX and MOVE values between January 2000 and July 2023.

Equity Cyclically Adjusted P/E Ratios¹



- Given the strong technology-driven rally this year, the US equity price-to-earnings ratio increased above its long-run (21st century) average.
- International developed market valuations are below their own long-term average, with those for emerging markets the lowest and well under the long-term average.

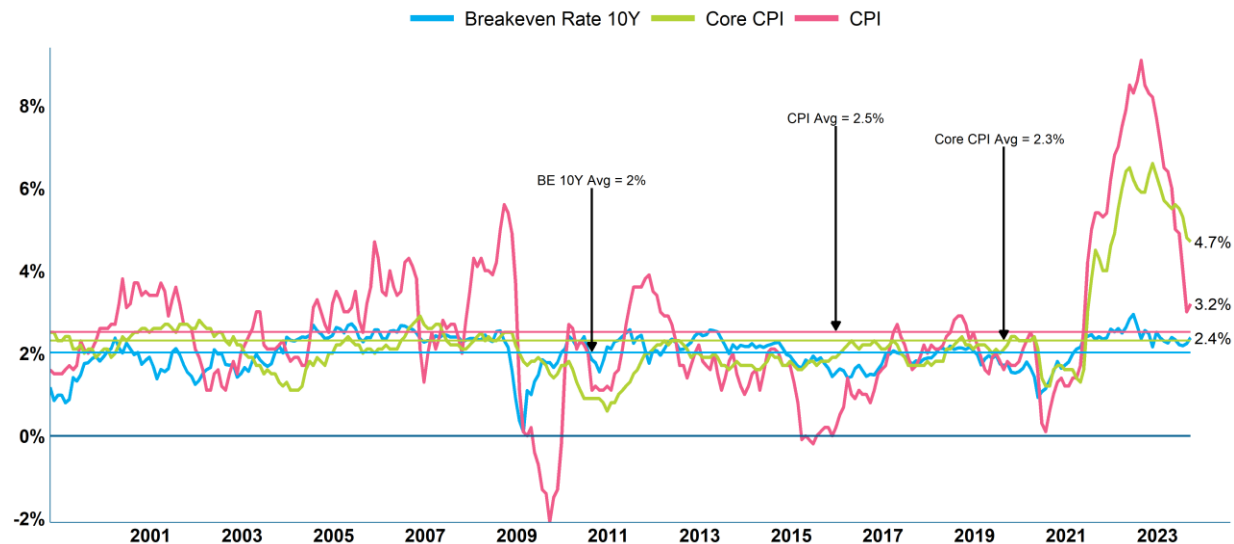
¹ US Equity Cyclically Adjusted P/E on S&P 500 Index. Source: Robert Shiller, Yale University, and Meketa Investment Group. Developed and Emerging Market Equity (MSCI EAFE and EM Index) Cyclically Adjusted P/E – Source: MSCI and Bloomberg. Earnings figures represent the average of monthly “as reported” earnings over the previous ten years. Data is as of July 2023. The average line is the long-term average of the US, EM, and EAFE PE values from December 1999 to the recent month-end respectively.



- In July, very short-term interest rates (6-months or less) fell as it appears interest rate hikes might be coming to an end. Longer dated maturities continued to drift higher, as economic data remains resilient. So far in 2023, rates overall remain higher, particularly the policy sensitive front-end of the yield curve.
- The yield curve remains inverted with the spread between two-year and ten-year Treasuries finishing the month at -0.91%. The more closely watched measure (by the Fed) of the three-month and ten-year Treasuries spread also remained inverted at -1.60%. Inversions in the yield curve have often preceded recessions.

¹ Source: Bloomberg. Data is as of July 31, 2023.

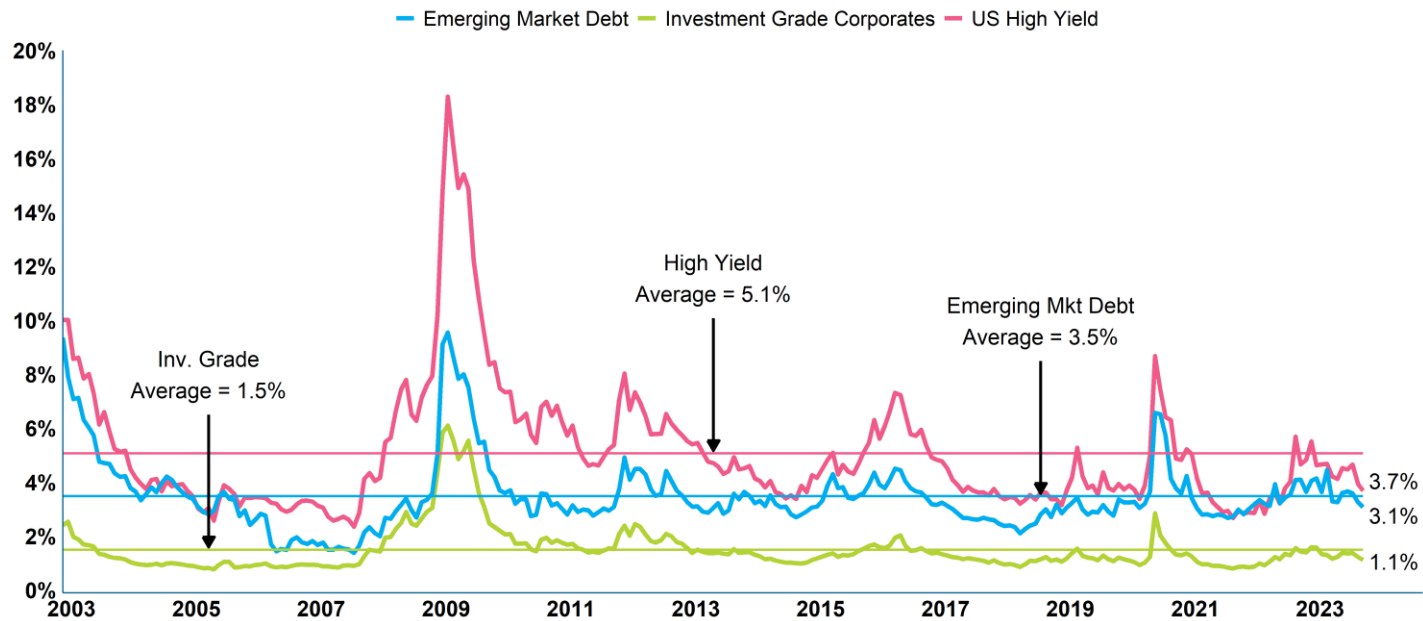
Ten-Year Breakeven Inflation and CPI¹



- Declines in inflation while other economic data remains strong has led to optimism over the Federal Reserve potentially achieving a rarely observed soft landing for the economy.
- Year-over-year headline inflation rose slightly in July (3.0% to 3.2%) but came in below expectations. The trend of lower month-over-month price increases continued with the rate staying steady at 0.2%.
- Core inflation – excluding food and energy - fell (4.8% to 4.7%) year-over-year. It remains stubbornly high though driven by shelter costs (+7.7%), particularly owners equivalent rent, and transportation services (+9.0%).
- Inflation expectations (breakevens) remain well below current inflation as investors continue to expect inflation to track back toward the Fed’s 2% average target.

¹ Source: Bloomberg. Data is as July 31, 2023. The CPI and 10 Year Breakeven average lines denote the average values from August 1998 to the present month-end, respectively. Breakeven values represent month-end values for comparative purposes.

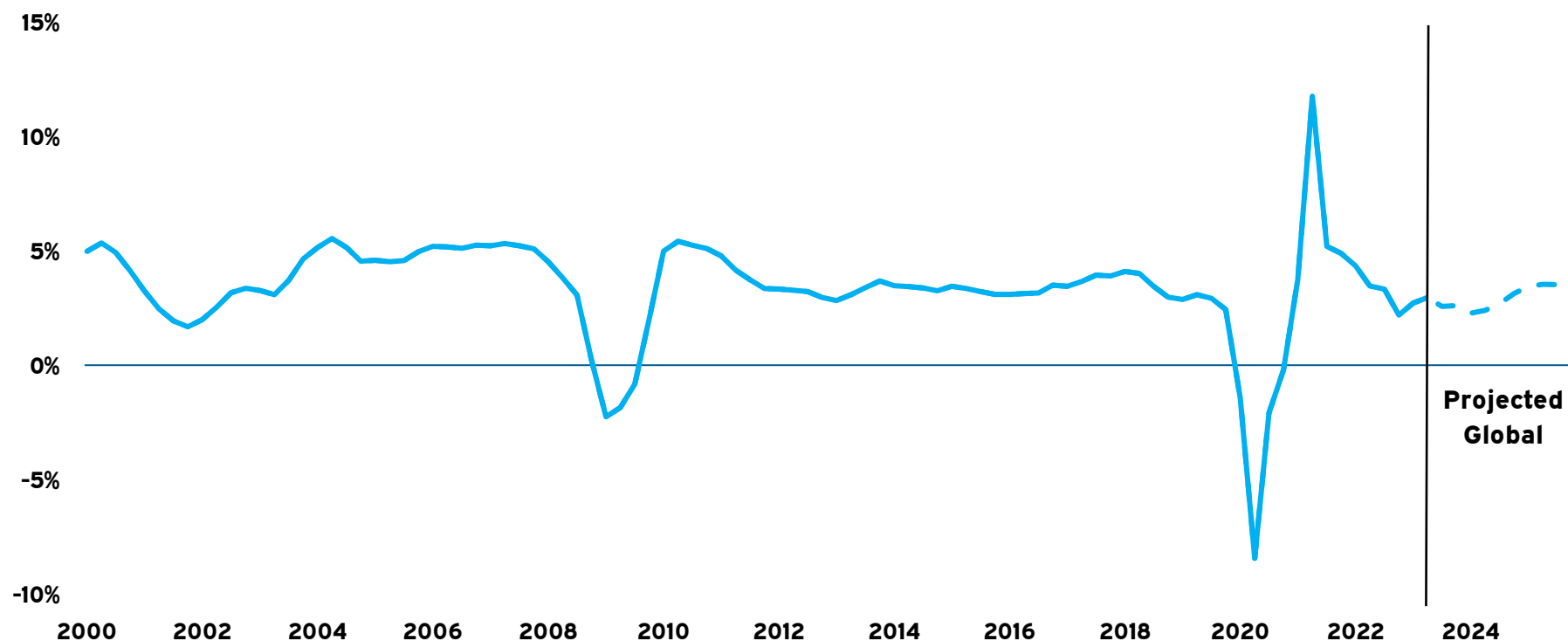
Credit Spreads vs. US Treasury Bonds¹



- Credit markets outperformed government bonds for the month with spreads (the added yield above a comparable maturity Treasury) declining. Risk appetite was strong as growth remains resilient, while inflation continues to decline.
- High yield spreads remain well below the long-term average. Investment grade and emerging market spreads are also below their respective long-term averages, but by smaller margins.

¹ Sources: Bloomberg. Data is as of July 31, 2023. Average lines denote the average of the investment grade, high yield, and emerging market spread values from August 2000 to the recent month-end, respectively.

Global Real Gross Domestic Product (GDP) Growth¹



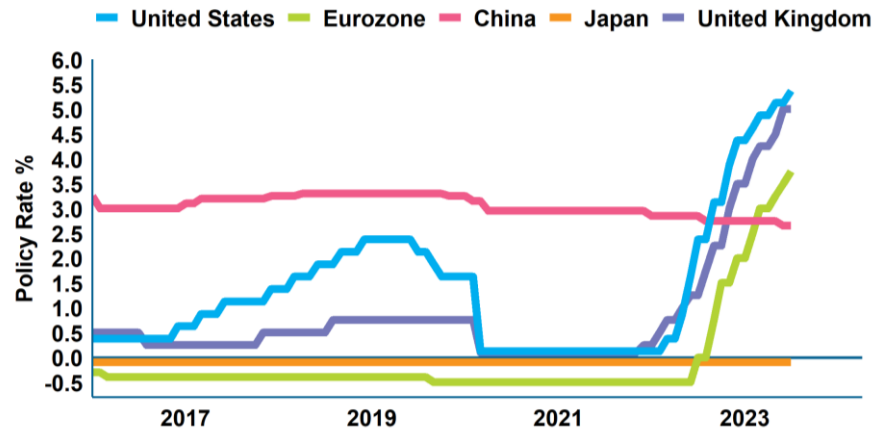
→ Global economies are expected to slow this year compared to 2022. The risk of recession remains given policymakers' aggressive tightening, but optimism has started to grow over some central banks potentially navigating a soft landing.

→ The delicate balancing act of central banks trying to reduce inflation without dramatically depressing growth will remain key.

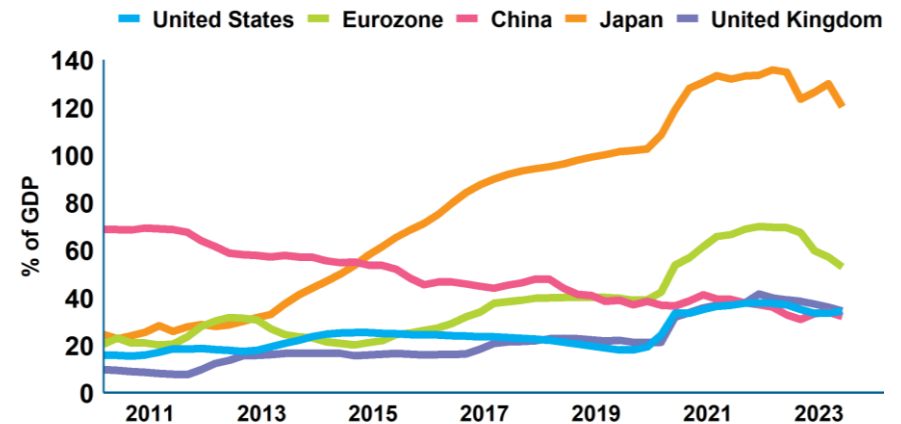
¹ Source: Oxford Economics (World GDP, US\$ prices & PPP exchange rate, real, % change YoY). Updated July 2023.

Central Bank Response¹

Policy Rates



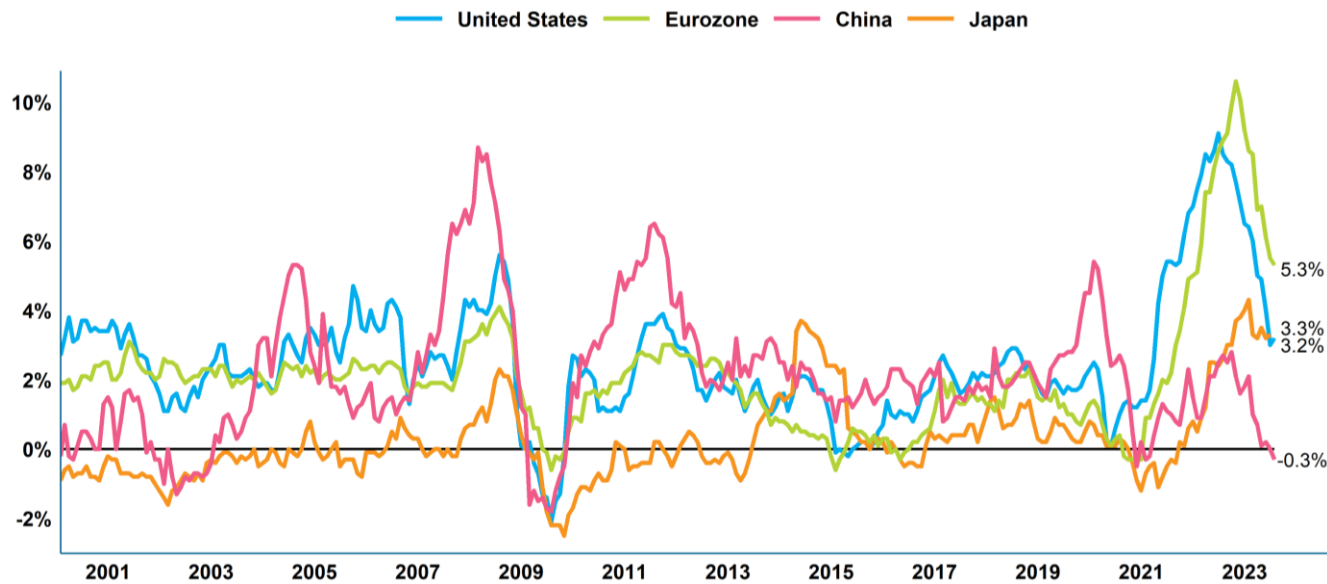
Balance Sheet as % of GDP



- Slowing inflation and growth have led to expectations for a reduction in the pace of aggressive policy tightening.
- In July the Fed raised rates another 25 basis points to a range of 5.25% to 5.50% with markets largely expecting this to be the last rate increase. After month-end, the FOMC paused its tightening campaign.
- The European Central Bank also increased rates in July, but they remain lower than in the US. In Japan the BOJ surprised markets by announcing they would be more flexible on their 10-year interest rate target.
- The central bank in China has continued to cut interest rates and inject liquidity into the banking system, as weaker than expected economic data appears to indicate a widespread slowdown.
- Looking ahead, risks remain for a policy error as central banks attempt to balance multiple goals, bringing down inflation, maintaining financial stability, and supporting growth.

¹ Source: Bloomberg. Policy rate data is as of July 31, 2023. China policy rate is defined as the medium-term lending facility 1 year interest rate. Balance sheet as % of GDP is based on quarterly data and is as of June 30, 2023.

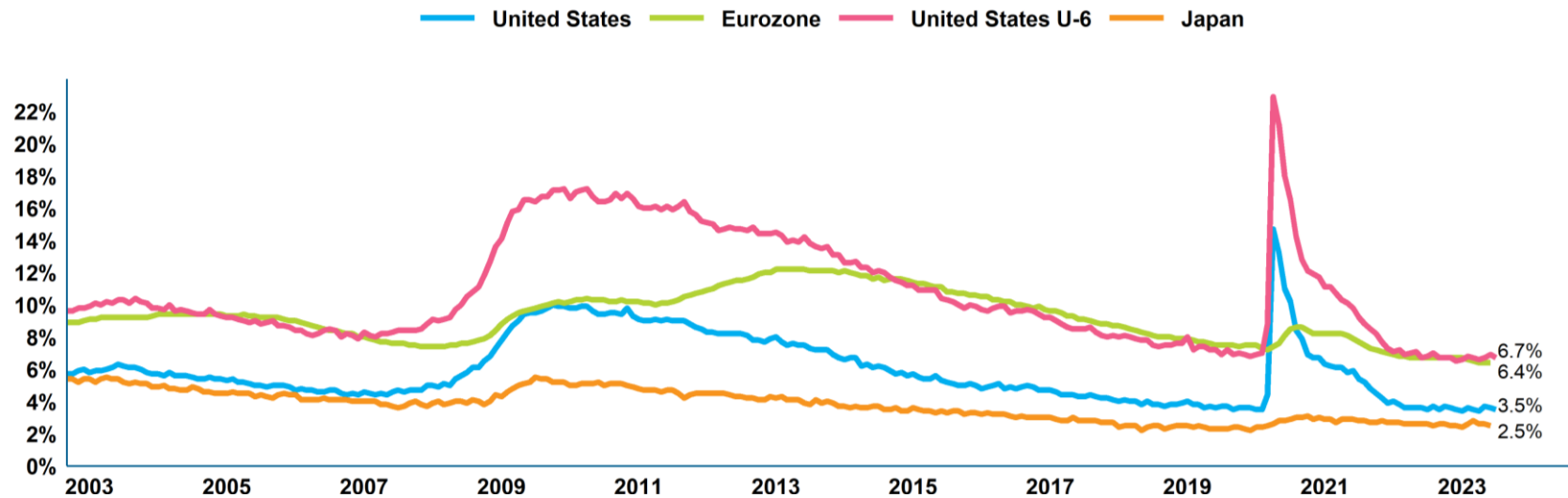
Inflation (CPI Trailing Twelve Months)¹



- The inflation picture remains mixed across the major economies.
- In the US, inflation rose slightly in July (3.0% to 3.2%), while eurozone inflation continued to fall (5.5% to 5.3%) a level well off its peak. Despite 2023's significant declines in the US and Europe, inflation levels remain elevated compared to central bank targets.
- Inflation in Japan remains elevated at levels not seen in almost a decade largely driven by food and home related items. In China, deflationary pressures emerged in July due to falling food prices, but this is expected to be temporary as high base effects from last year work their way through.

¹ Source: Bloomberg. Data is as July 31, 2023. The most recent Japanese inflation data is as of June 2023.

Unemployment¹



- Despite slowing growth and relatively high inflation, the US labor market continues to show signs of resilience (3.5%). Unemployment in the US, which experienced the steepest rise, recently returned to pre-pandemic levels. Broader measures of unemployment (U-6) remain higher at 6.7% but also declined dramatically from their peak.
- The strong labor market and higher wages, although beneficial for workers, motivates the Fed's efforts to fight inflation, potentially leading to higher unemployment.
- Unemployment in Europe has also declined but remains higher than the US, while levels in Japan have been flat through the pandemic given less layoffs.

¹ Source: Bloomberg. Data is as July 31, 2023, for the US. The most recent data for Eurozone and Japanese unemployment is as of June 2023.

US Dollar versus Broad Currencies¹



- The dollar finished 2022 much higher than it started, due to the increased pace of policy tightening, stronger relative growth, and safe-haven flows.
- Late last year and into early this year, the dollar declined, as weaker economic data and lower inflation led to investors anticipating the end of Fed tightening. Since then, the dollar has largely been range-bound due to competing forces of safe-haven flows and monetary policy expectations.
- For the rest of this year, the track of inflation across economies and the corresponding monetary policies will be key drivers of currency moves.

¹ Source: Bloomberg. Data as of July 31, 2023.

Summary

Key Trends:

- The impact of inflation still above policy targets will remain key, with bond market volatility likely to stay high.
- Global monetary policies could diverge in 2023. The risk of policy errors remains elevated as central banks try to reduce persistent inflation while not tipping their economies into recession.
- Growth is expected to slow globally this year, with many economies forecasted to tip into recession. Optimism has been building though that some economies could experience a soft landing. Inflation, monetary policy, and the war will all be key.
- In the US, consumers could feel pressure as certain components of inflation remain high (e.g., shelter), borrowing cost are elevated, and the job market may weaken.
- The key for US equities going forward will be whether earnings can remain resilient if growth continues to slow. Also, the future path of the large technology companies that have driven market gains will be important.
- Equity valuations remain lower in emerging and developed markets, but risks remain, including potential for renewed strength in the US dollar, higher inflation weighing particularly on Europe, and China's sluggish economic reopening and on-going weakness in the real estate sector. Japan's recent hint at potentially tightening monetary policy along with changes in corporate governance in the country could influence relative results.

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/>

INTEGRITY ✓
STEWARDSHIP ⚙️
SERVICE ⚙️
CULTURE 🌍
DIVERSITY 🌍
COMMUNITY 🌍

INTEGRITY (Measures) Rooted to the highest ethical standards in providing our clients with investment advice and services. We uphold the needs and interests of clients and those impacted by our services and business activities.

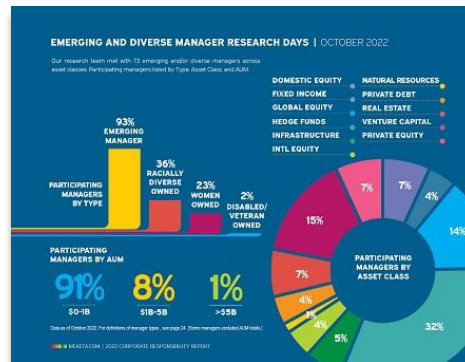
STEWARDSHIP (Measures) A responsible investor of our clients' assets. We adhere to our investment, investment, and investment principles to support our clients' long-term goals and interests. We are committed to supporting our clients' long-term goals and interests. We are committed to supporting our clients' long-term goals and interests.

SERVICE (Measures) Since 1988, the quality of our client service has been a top priority. We are committed to providing our clients with the highest quality service. We are committed to providing our clients with the highest quality service.

CULTURE (Measures) We value the diverse perspectives, experiences, and talents of our employees. We are committed to creating a culture of inclusion and respect. We are committed to creating a culture of inclusion and respect.

DIVERSITY (Measures) We are committed to creating a diverse and inclusive workforce. We are committed to creating a diverse and inclusive workforce.

COMMUNITY (Measures) We are committed to supporting the communities in which we operate. We are committed to supporting the communities in which we operate.



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. $\text{Portfolio Return} - [\text{Risk Free Rate} + \text{Beta} * (\text{market return} - \text{Risk Free Rate})]$.

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.