

Plymouth County Retirement Association

January 25, 2022

Meeting Materials

Agenda

1. Estimated Retirement Association Performance As of December 31, 2021
2. Performance Update As of November 30, 2021
3. Current Issues
 - Small Cap Value Equity Manager Finalist Review
 - Investment Policy Review / Update
4. Appendix
 - Disclaimer, Glossary, and Notes

**Estimated Retirement Association Performance
As of December 31, 2021**

Estimated Aggregate Performance¹

	December ² (%)	QTD (%)	YTD (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)
Total Retirement Association	1.9	2.5	14.4	14.4	14.9	10.4	9.2

Benchmark Returns

	December (%)	QTD (%)	YTD (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)
Russell 3000	3.9	9.3	25.7	25.7	25.8	18.0	16.3
MSCI EAFE	5.1	2.7	11.3	11.3	13.5	9.6	8.0
MSCI Emerging Markets	1.9	-1.3	-2.5	-2.5	10.9	9.9	5.5
Barclays Aggregate	0.3	0.0	-1.5	-1.5	4.8	3.6	2.9
Barclays TIPS	0.3	2.4	6.0	6.0	8.4	5.3	3.1
Barclays High Yield	1.9	0.7	5.3	5.3	8.8	6.3	6.8
JPM EMBI Global Diversified (Hard Currency)	1.4	-0.4	-1.8	-1.8	5.9	4.7	5.3
S&P Global Natural Resources	7.2	7.3	25.2	25.2	13.9	9.6	4.6

Estimated Total Assets

	Estimate
Total Retirement Association	1,383,044,836

¹ The December performance estimates are calculated using index returns as of December 31, 2021 for each asset class. No performance estimate was included for private equity, real estate, infrastructure, and private natural resources asset classes.

² As of December, 2021.

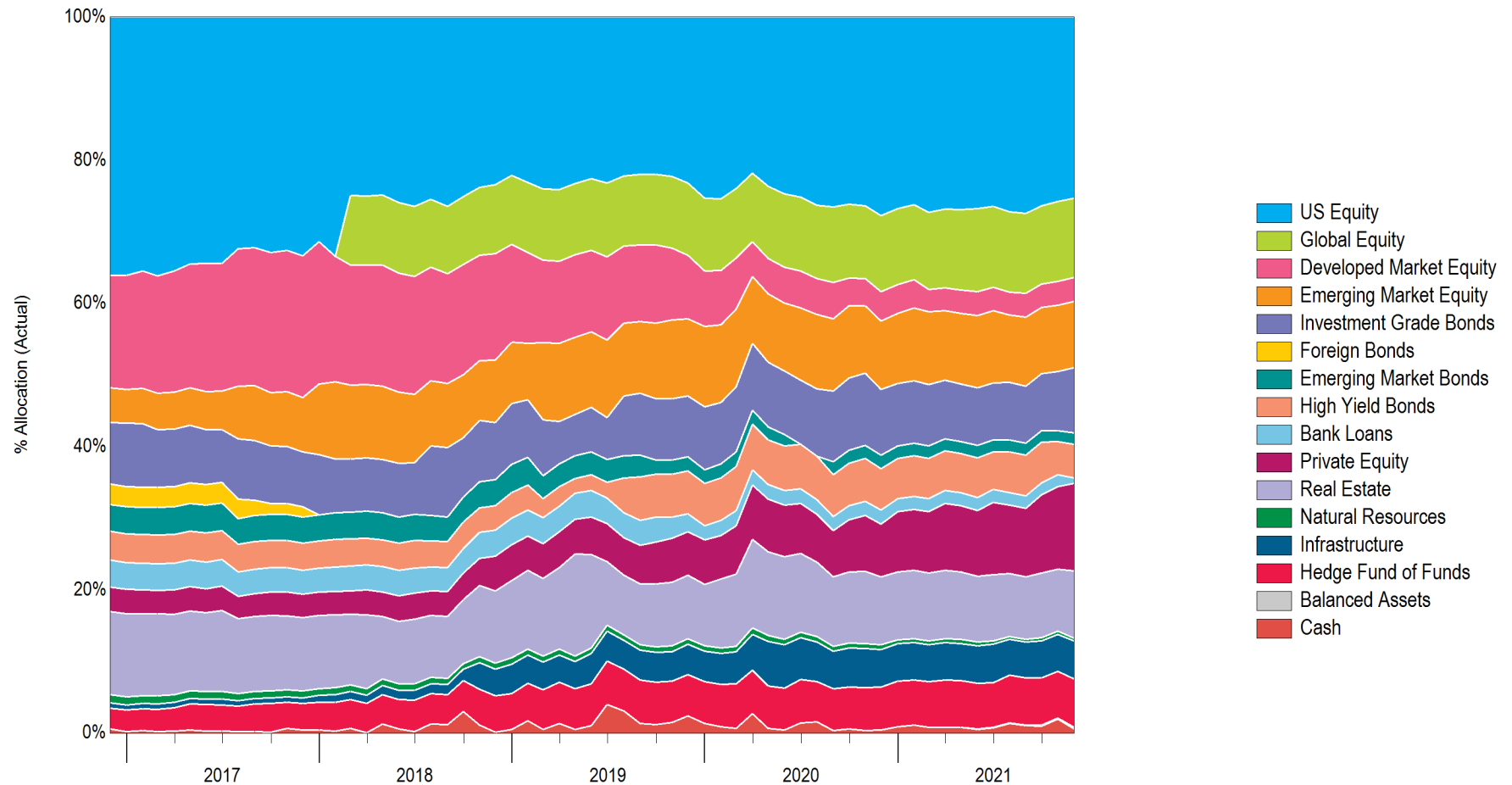
**Performance Update
As of November 30, 2021**

DRAFT

	Allocation vs. Target		Policy	Policy Range	Within IPS Range?
	Current Balance	Current Allocation			
Domestic Equity	\$344,003,159	25%	26%	21% - 36%	Yes
International Developed Market Equity	\$45,319,511	3%	6%	1% - 16%	Yes
International Emerging Market Equity	\$125,868,263	9%	10%	5% - 20%	Yes
Global Equity	\$149,902,468	11%	10%	5% - 20%	Yes
Core Bonds	\$123,234,231	9%	9%	4% - 14%	Yes
Value-Added Fixed Income	\$95,898,605	7%	6%	2% - 12%	Yes
Private Equity	\$168,481,043	12%	13%	4% - 18%	Yes
Real Estate	\$126,970,526	9%	10%	5% - 15%	Yes
Real Assets	\$77,671,699	6%	6%	2% - 10%	Yes
Hedge Fund of Funds	\$91,651,191	7%	4%	2% - 8%	Yes
Cash	\$8,105,657	1%	0%	0% - 3%	Yes
Total	\$1,357,106,353	100%	100%		

	Current Balance	Current Allocation	Policy	Policy Range	Within IPS Range?
Total Equity	\$910,833,332	67%	69%	60% - 80%	Yes
Total Fixed Income	\$219,132,836	16%	15%	5% - 25%	Yes
Total Real Assets and Real Estate	\$219,034,528	16%	16%	13% - 19%	Yes
Cash	\$8,105,657	1%	0%	0% - 3%	Yes

Asset Allocation History 5 Years Ending November 30, 2021



Total Retirement Association | As of November 30, 2021

Asset Class Net Performance Summary

	Market Value (\$)	% of Portfolio	1 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Total Retirement Association	1,357,106,353	100.0	-1.7	12.2	18.7	12.4	10.3	9.0	8.2	Nov-89
Policy Benchmark (Net) (1)			-1.4	14.4	19.4	13.1	11.3	9.6	--	Nov-89
Actual Allocation (Net)			-1.3	12.7	17.2	11.9	10.0	--	--	Nov-89
Domestic Equity Assets	344,003,159	25.3	-3.3	16.4	24.7	20.2	16.9	--	16.7	Jan-16
Russell 3000			-1.5	20.9	26.3	20.2	17.5	16.0	16.6	Jan-16
International Developed Market Equity Assets	45,319,511	3.3	-3.0	4.2	9.3	6.8	6.9	--	5.5	Jan-16
MSCI EAFE			-4.7	5.8	10.8	9.8	9.2	7.4	7.3	Jan-16
International Emerging Market Equity Assets	125,868,263	9.3	-3.1	1.0	8.6	11.4	10.1	--	9.9	Jan-16
MSCI Emerging Markets			-4.1	-4.3	2.7	9.3	9.5	5.2	9.9	Jan-16
Global Equity Assets	149,902,468	11.0	-3.9	11.5	17.9	13.5	--	--	8.4	Feb-18
MSCI ACWI			-2.4	14.0	19.3	16.0	14.0	11.4	9.9	Feb-18
Core Fixed Income	123,234,231	9.1	0.2	0.3	0.7	5.4	3.6	--	3.7	Jan-16
75% Bbg Aggregate/25% Bbg US TIPs 1-10 year			0.3	0.3	0.7	5.9	3.8	2.9	3.7	Jan-16
Value Added Fixed Income	95,898,605	7.1	-0.9	2.8	4.7	5.6	5.3	--	6.2	Jan-16
Custom Benchmark (2)			-0.8	0.1	1.7	5.7	5.0	--	6.0	Jan-16
Hedge Funds	91,651,191	6.8	-1.6	5.4	18.2	6.3	6.6	5.6	5.0	Feb-10
Custom Benchmark			-0.8	5.6	11.6	7.1	5.8	4.5	3.8	Feb-10
Real Estate (3)	126,970,526	9.4	1.0	17.3	24.3	11.7	9.2	--	8.0	Jan-16
80% NCREIF ODCE / 20% Wilshire REIT			-0.1	16.8	18.4	7.8	7.5	--	7.2	Jan-16
Private Equity (4)	168,481,043	12.4	0.0	37.9	47.8	19.2	15.7	--	12.0	Jan-16
Cambridge Associates FoF Composite 1Q Lagged			0.0	48.7	62.4	24.0	19.8	14.5	16.8	Jan-16
Real Assets (5)	77,671,699	5.7	0.1	13.9	18.0	7.3	4.4	--	2.3	Jan-16
CPI + 3%			1.0	9.4	10.0	6.4	5.9	5.1	5.7	Jan-16
Cash and Cash Equivalent	8,105,657	0.6								

(1) The custom benchmark is comprised of 26% Russell 3000/ 6% MSCI EAFE/ 10% MSCI Emerging Markets/ 13% Cambridge Associates FOF 1Q Lag/ 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% (80/20 NCREIF ODCE and Wilshire REIT)/ 6% CPI+3%

(2) The custom benchmark is comprised of 25% BBgBarc US High Yield/ 25% Credit Suisse Leveraged Loans/ 25% JP Morgan EMBI Global diversified/ 25% BBgBarc Multiverse TR

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

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

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

Trailing Net Performance											
	Market Value (\$)	% of Portfolio	% of Sector	1 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Total Retirement Association	1,357,106,353	100.0	--	-1.7	12.2	18.7	12.4	10.3	9.0	8.2	Nov-89
Policy Benchmark (Net)				-1.4	14.4	19.4	13.1	11.3	9.6	--	Nov-89
Actual Allocation (Net)				-1.3	12.7	17.2	11.9	10.0	--	--	Nov-89
Domestic Equity Assets	344,003,159	25.3	25.3	-3.3	16.4	24.7	20.2	16.9	--	16.7	Jan-16
Russell 3000				-1.5	20.9	26.3	20.2	17.5	16.0	16.6	Jan-16
Rhumblin Russell 1000 Value	65,293,226	4.8	19.0	-3.5	17.7	22.2	11.4	10.3	--	10.5	Apr-13
Russell 1000 Value				-3.5	17.7	22.2	11.5	10.4	12.5	10.6	Apr-13
Rhumblin Russell 1000 Growth	71,266,748	5.3	20.7	0.6	24.9	30.7	29.2	25.1	19.4	18.5	Jul-09
Russell 1000 Growth				0.6	25.0	30.7	29.2	25.1	19.5	18.6	Jul-09
Fisher Midcap Value	68,299,670	5.0	19.9	-3.8	23.7	31.7	22.4	17.9	14.6	10.3	Apr-07
Russell MidCap Value				-3.0	20.8	26.3	13.0	10.3	12.9	8.0	Apr-07
Russell MidCap				-3.5	17.8	23.3	17.5	14.4	14.4	9.6	Apr-07
Mellon Small Cap Growth	73,926,731	5.4	21.5	-7.7	-3.3	7.6	26.2	22.2	18.1	17.4	Aug-09
Russell 2000 Growth				-4.9	2.4	11.9	16.1	14.7	14.1	14.4	Aug-09
LMCG Small Cap Value	65,216,784	4.8	19.0	-1.3	24.4	33.2	12.5	8.6	11.5	9.4	Mar-11
Russell 2000 Value				-3.4	23.2	33.0	11.5	9.1	11.8	9.6	Mar-11

Summary | As of November 30, 2021

	Market Value (\$)	% of Portfolio	% of Sector	1 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
International Developed Market Equity Assets	45,319,511	3.3	3.3	-3.0	4.2	9.3	6.8	6.9	--	5.5	Jan-16
MSCI EAFE				-4.7	5.8	10.8	9.8	9.2	7.4	7.3	Jan-16
Aristotle International Equity	23,962,889	1.8	52.9	-3.2	--	--	--	--	--	10.7	Mar-21
MSCI EAFE				-4.7	5.8	10.8	9.8	9.2	7.4	4.6	Mar-21
Walter Scott International Equity	21,356,622	1.6	47.1	-2.8	--	--	--	--	--	9.3	Mar-21
MSCI EAFE				-4.7	5.8	10.8	9.8	9.2	7.4	4.6	Mar-21
International Emerging Market Equity Assets	125,868,263	9.3	9.3	-3.1	1.0	8.6	11.4	10.1	--	9.9	Jan-16
MSCI Emerging Markets				-4.1	-4.3	2.7	9.3	9.5	5.2	9.9	Jan-16
ABS Emerging Markets	67,181,450	5.0	53.4	-2.6	3.6	11.4	15.3	--	--	15.3	Dec-18
MSCI Emerging Markets				-4.1	-4.3	2.7	9.3	9.5	5.2	9.3	Dec-18
Driehaus Emerging Markets Growth	58,686,812	4.3	46.6	-3.6	-1.8	5.6	--	--	--	14.2	Mar-19
MSCI Emerging Markets				-4.1	-4.3	2.7	9.3	9.5	5.2	7.8	Mar-19
Global Equity Assets	149,902,468	11.0	11.0	-3.9	11.5	17.9	13.5	--	--	8.4	Feb-18
MSCI ACWI				-2.4	14.0	19.3	16.0	14.0	11.4	9.9	Feb-18
First Eagle Global Value Fund	24,571,051	1.8	16.4	-3.4	8.1	12.1	9.9	--	--	5.5	Feb-18
MSCI ACWI Value NR USD				-3.8	12.6	17.3	7.9	8.0	8.2	3.8	Feb-18
Kopernik Global All Cap Fund	37,401,103	2.8	25.0	-4.2	18.5	30.9	20.7	--	--	11.8	Feb-18
MSCI ACWI Value NR USD				-3.8	12.6	17.3	7.9	8.0	8.2	3.8	Feb-18
Lee Munder Global Multi-Cap Strategy	45,160,437	3.3	30.1	-2.5	14.8	20.3	13.1	--	--	9.2	Mar-18
MSCI ACWI				-2.4	14.0	19.3	16.0	14.0	11.4	11.4	Mar-18
Wellington Durable Enterprises, L.P.	42,769,877	3.2	28.5	-5.4	5.0	9.5	11.2	--	--	9.9	Mar-18
MSCI ACWI				-2.4	14.0	19.3	16.0	14.0	11.4	11.4	Mar-18

Summary | As of November 30, 2021

	Market Value (\$)	% of Portfolio	% of Sector	1 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Core Fixed Income	123,234,231	9.1	9.1	0.2	0.3	0.7	5.4	3.6	--	3.7	Jan-16
75% Bbg Aggregate/25% Bbg US TIPs 1-10 year				0.3	0.3	0.7	5.9	3.8	2.9	3.7	Jan-16
IR&M Core Bonds	56,306,837	4.1	45.7	0.2	-0.9	-0.7	5.7	3.7	3.3	4.2	Nov-04
Bloomberg US Aggregate TR				0.3	-1.3	-1.2	5.5	3.7	3.0	4.1	Nov-04
Lord Abbett Short Duration Credit Trust II	49,089,081	3.6	39.8	-0.2	0.8	1.3	--	--	--	2.4	Aug-19
Bloomberg US Credit 1-3 Yr TR				-0.2	-0.2	0.0	3.1	2.4	2.1	2.2	Aug-19
Rhumblin TIPS Trust	17,838,313	1.3	14.5	0.9	5.6	6.8	--	--	--	5.5	Sep-20
Bloomberg US TIPS TR				0.9	5.6	6.8	8.5	5.2	3.1	5.5	Sep-20
Value Added Fixed Income	95,898,605	7.1	7.1	-0.9	2.8	4.7	5.6	5.3	--	6.2	Jan-16
Custom Benchmark				-0.8	0.1	1.7	5.7	5.0	--	6.0	Jan-16
Eaton Vance High Yield	12,599,372	0.9	13.1	-0.9	3.2	5.0	6.8	5.7	6.5	6.7	Apr-06
ICE BofA US High Yield TR				-1.0	3.4	5.4	7.1	6.1	6.8	7.1	Apr-06
First Eagle Bank Loan Select Fund	10,800,879	0.8	11.3	0.0	5.4	7.0	4.4	4.3	5.4	5.2	Sep-10
Credit Suisse Leveraged Loans				-0.2	4.7	6.1	4.4	4.4	4.8	4.7	Sep-10
Manulife Strategic Fixed Income	35,201,347	2.6	36.7	-0.9	-0.4	1.0	--	--	--	4.2	Jul-19
Bloomberg Multiverse TR				-0.4	-4.5	-3.1	4.4	3.4	2.0	2.2	Jul-19
Mesirow High Yield	15,537,009	1.1	16.2	-0.9	9.4	13.0	--	--	--	10.0	Aug-19
Bloomberg US Corporate High Yield TR				-1.0	3.3	5.3	7.4	6.3	6.9	6.0	Aug-19
Eaton Vance EMD Opportunities Fund	21,759,998	1.6	22.7	-1.6	1.0	3.0	--	--	--	6.5	Aug-20
JP Morgan EMBI Global Diversified				-1.8	-3.2	-1.3	5.9	4.6	5.2	0.8	Aug-20

Summary | As of November 30, 2021

	Market Value (\$)	% of Portfolio	% of Sector	1 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Hedge Funds	91,651,191	6.8	6.8	-1.6	5.4	18.2	6.3	6.6	5.6	5.0	Feb-10
Custom Benchmark				-0.8	5.6	11.6	7.1	5.8	4.5	3.8	Feb-10
ABS Offshore SPC - Global Segregated Portfolio	37,500,043	2.8	40.9	-2.6	1.5	6.4	9.3	7.4	6.3	6.0	Aug-10
HFRI Fund of Funds Composite Index				-1.6	5.7	9.7	7.7	5.8	4.5	4.0	Aug-10
Entrust Special Opportunities Fund III, Ltd.	20,908,855	1.5	22.8	0.0	8.3	34.9	3.7	9.5	--	9.2	Oct-16
HFRI Fund of Funds Composite Index (QTR)				0.0	5.5	13.5	6.2	5.6	4.4	5.5	Oct-16
Old Farm Partners Master Fund, L.P.	11,314,716	0.8	12.3	-3.7	4.5	9.9	9.9	--	--	7.8	Oct-18
HFRI Fund of Funds Composite Index				-1.6	5.7	9.7	7.7	5.8	4.5	6.1	Oct-18
EnTrustPermal Special Opportunities Evergreen Fund, Ltd.	21,927,577	1.6	23.9	0.0	9.2	26.4	--	--	--	10.7	Jan-19
HFRI Fund of Funds Composite Index (QTR)				0.0	5.5	13.5	6.2	5.6	4.4	8.3	Jan-19
Real Estate	126,970,526	9.4	9.4	1.0	17.3	24.3	11.7	9.2	--	8.0	Jan-16
80% NCREIF ODCE / 20% Wilshire REIT				-0.1	16.8	18.4	7.8	7.5	--	7.2	Jan-16
Core Real Estate	79,849,035	5.9	62.9	1.6	18.4	21.2	10.6	9.4	--	8.8	Jan-16
NCREIF-ODCE				0.0	13.2	14.6	7.1	7.5	9.9	7.4	Jan-16
TA Realty Core Property Fund, L.P.	47,049,478	3.5	58.9	0.0	19.5	23.8	13.1	--	--	11.9	Apr-18
NCREIF ODCE				0.0	13.2	14.6	7.1	7.5	9.9	6.9	Apr-18
JPMorgan Strategic Property	32,799,557	2.4	41.1	4.0	16.8	17.5	--	--	--	7.3	Apr-19
NCREIF-ODCE				0.0	13.2	14.6	7.1	7.5	9.9	6.7	Apr-19

Entrust Special Opportunities Fund III and EntrustPermal Special Opportunities Evergreen Fund: Data is based on September 30, 2021 fair market value, adjusted for subsequent cash flows.

Note: The data for Real Estate is based on September 30, 2021 fair market value, adjusted for subsequent cash flows.

Note: The data for JPMorgan Strategic Property is as of November 30, 2021.

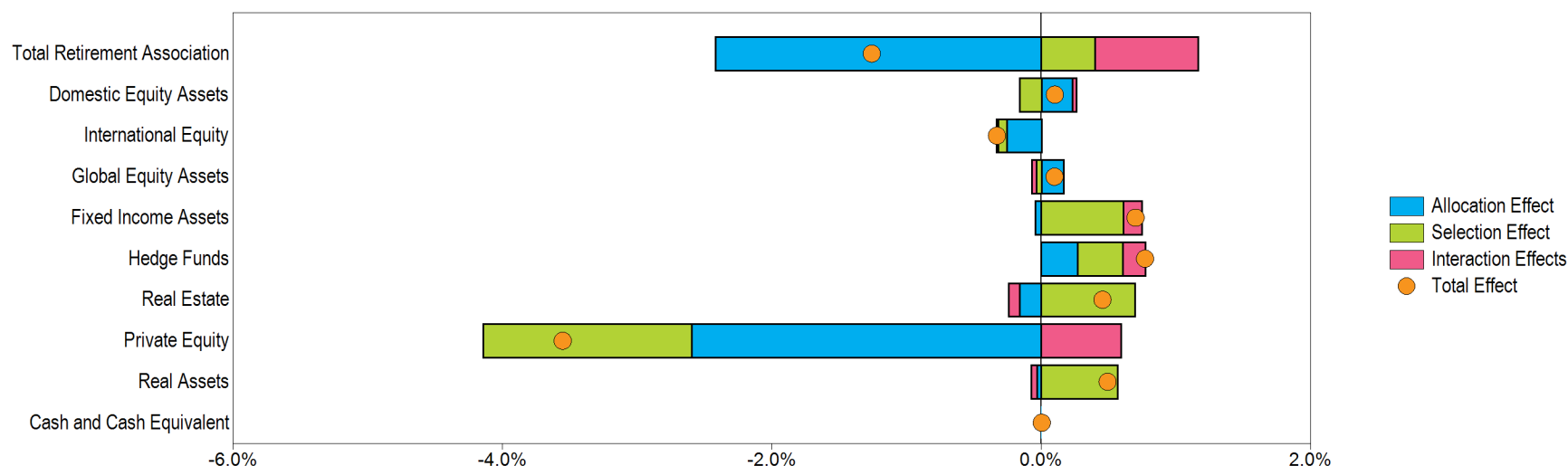
Summary | As of November 30, 2021

	Market Value (\$)	% of Portfolio	% of Sector	1 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Non-Core Real Estate	47,121,491	3.5	37.1	0.0	15.5	28.9	13.6	7.2	--	4.5	Jan-16
Private Equity	168,481,043	12.4	12.4	0.0	37.9	47.8	19.2	15.7	--	12.0	Jan-16
<i>Cambridge Associates FoF Composite 1Q Lagged</i>				<i>0.0</i>	<i>48.7</i>	<i>62.4</i>	<i>24.0</i>	<i>19.8</i>	<i>14.5</i>	<i>16.8</i>	<i>Jan-16</i>
Private Equity	154,979,303	11.4	92.0	0.0	36.9	47.5	19.9	15.2	--	11.5	Jan-16
Venture Capital	13,501,740	1.0	8.0	0.0	50.2	53.0	13.4	14.1	--	12.1	Jan-16
Real Assets	77,671,699	5.7	5.7	0.1	13.9	18.0	7.3	4.4	--	2.3	Jan-16
<i>CPI + 3%</i>				<i>1.0</i>	<i>9.4</i>	<i>10.0</i>	<i>6.4</i>	<i>5.9</i>	<i>5.1</i>	<i>5.7</i>	<i>Jan-16</i>
IFM Global Infrastructure	42,838,344	3.2	55.2	0.2	13.4	17.6	12.1	--	--	11.3	Oct-18
<i>CPI+5%</i>				<i>1.2</i>	<i>11.2</i>	<i>12.0</i>	<i>8.4</i>	<i>7.9</i>	<i>7.1</i>	<i>8.3</i>	<i>Oct-18</i>
Cash and Cash Equivalent	8,105,657	0.6	0.6								
Cash	8,105,657	0.6	100.0								

Note: The data for Real Estate, Private Equity, and Real Assets is based on June 30, 2021 fair market value, adjusted for subsequent cash flows.

Note: The data for IFM Global Infrastructure is as of November 30, 2021.

Attribution Effects 1 Year Ending November 30, 2021



Attribution Summary 1 Year Ending November 30, 2021

	Wtd. Actual Return	Wtd. Index Return	Excess Return	Selection Effect	Allocation Effect	Interaction Effects	Total Effects
Domestic Equity Assets	24.7%	25.4%	-0.8%	-0.2%	0.2%	0.0%	0.1%
International Equity	8.9%	9.3%	-0.4%	-0.1%	-0.3%	0.0%	-0.3%
Global Equity Assets	17.9%	18.4%	-0.5%	0.0%	0.2%	0.0%	0.1%
Fixed Income Assets	2.8%	-0.7%	3.5%	0.6%	0.0%	0.1%	0.7%
Hedge Funds	18.2%	10.8%	7.4%	0.3%	0.3%	0.2%	0.8%
Real Estate	24.3%	17.6%	6.7%	0.7%	-0.2%	-0.1%	0.5%
Private Equity	47.8%	61.3%	-13.4%	-1.5%	-2.6%	0.6%	-3.6%
Real Assets	18.0%	9.2%	8.8%	0.6%	0.0%	0.0%	0.5%
Cash and Cash Equivalent	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Total	18.7%	19.9%	-1.3%	0.4%	-2.4%	0.8%	-1.3%

Annual Investment Expense Analysis

As Of November 30, 2021

Name	Fee Schedule	Market Value	Estimated Fee Value	Estimated Fee
Domestic Equity Assets		\$344,003,159		
Rhumblin Russell 1000 Value	0.05% of First 25.0 Mil, 0.04% of Next 25.0 Mil, 0.03% Thereafter	\$65,293,226	\$27,088	0.04%
Rhumblin Russell 1000 Growth	0.05% of First 25.0 Mil, 0.04% of Next 25.0 Mil, 0.03% Thereafter	\$71,266,748	\$28,880	0.04%
Fisher Midcap Value	0.65% of Assets	\$68,299,670	\$443,948	0.65%
Mellon Small Cap Growth	0.45% of Assets	\$73,926,731	\$332,670	0.45%
LMCG Small Cap Value	0.90% of Assets	\$65,216,784	\$586,951	0.90%
International Developed Market Equity Assets		\$45,319,511		
Aristotle International Equity	0.49% of Assets	\$23,962,889	\$117,418	0.49%
Walter Scott International Equity	0.85% of Assets	\$21,356,622	\$181,531	0.85%
International Emerging Market Equity Assets		\$125,868,263		
ABS Emerging Markets	Performance-based 0.35 and 0.10	\$67,181,450	\$235,135	0.35%
Driehaus Emerging Markets Growth	0.55% of Assets	\$58,686,812	\$322,777	0.55%
Global Equity Assets		\$149,902,468		
First Eagle Global Value Fund	0.75% of Assets	\$24,571,051	\$184,283	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	\$37,401,103	\$299,209	0.80%
Lee Munder Global Multi-Cap Strategy	0.45% of Assets	\$45,160,437	\$203,222	0.45%
Wellington Durable Enterprises, L.P.	0.60% of Assets	\$42,769,877	\$256,619	0.60%

Name	Fee Schedule	Market Value	Estimated Fee Value	Estimated Fee
Core Fixed Income		\$123,234,231		
IR&M Core Bonds	0.25% of First 50.0 Mil, 0.20% of Next 50.0 Mil, 0.15% Thereafter	\$56,306,837	\$137,614	0.24%
Lord Abbett Short Duration Credit Trust II	0.17% of Assets	\$49,089,081	\$83,451	0.17%
Rhumblin TIPS Trust	0.04% of First 5.0 Mil, 0.03% Thereafter	\$17,838,313	\$5,851	0.03%
Value Added Fixed Income		\$95,898,605		
Eaton Vance High Yield	0.42% of Assets	\$12,599,372	\$52,917	0.42%
First Eagle Bank Loan Select Fund	0.40% of Assets	\$10,800,879	\$43,204	0.40%
Manulife Strategic Fixed Income	0.35% of Assets	\$35,201,347	\$123,205	0.35%
Mesirow High Yield	0.40% of Assets	\$15,537,009	\$62,148	0.40%
Eaton Vance EMD Opportunities Fund	0.30% of Assets	\$21,759,998	\$65,280	0.30%

Eaton Vance EMD Opportunities Fund: Stated fee of 0.30% with other operating expenses capped at 0.15%.

Note: The value is based on June 30, 2021 FMV.

Private Equity	Commitment	Total Contributions	Total Distributions	Value
Ascend Ventures II, L.P.	2,500,000	2,327,488	925,962	52,310
Ascent Venture Partners IV, L.P.	2,500,000	2,502,219	417,638	8,478
Ascent Venture Partners V, L.P.	5,000,000	5,004,731	3,182,862	4,986,732
Audax Mezzanine Fund IV, L.P.	10,000,000	7,948,173	4,501,616	4,656,786
Charles River Partnership XI, L.P.	1,839,000	1,820,323	2,532,884	12,822
Charlesbank Technology Opportunities Fund, L.P.	12,000,000	3,454,469	1,066,732	5,274,869
Constitution Ironsides Co-Investment Fund VI	13,000,000	0	0	0
DN Partners II, L.P.	5,000,000	2,375,841	23,571	1,851,631
Euro Choice V, L.P.	6,093,838	5,919,759	3,686,309	5,184,130
FS Equity Partners VIII, L.P.	12,000,000	3,924,838	0	5,689,729
Globespan Capital Partners V, L.P.	5,000,000	4,852,500	8,635,162	4,782,665
HarbourVest Partners Co-Investment Fund V, L.P.	12,000,000	8,400,000	0	14,769,509
HarbourVest Partners Co-Investment Fund VI	13,000,000	0	0	0
Ironsides Direct Investment Fund V, L.P.	12,000,000	10,244,297	785,087	19,041,321
Kohlberg IX	10,000,000	969,410	171,120	1,152,575
Landmark Equity Partners XIV, L.P.	6,000,000	5,837,967	6,895,225	931,860
Leeds Equity Partners IV, L.P.	5,000,000	5,093,100	9,709,704	13,189
Leeds Equity Partners V, L.P.	2,500,000	3,525,207	4,806,532	456,492
Lexington Capital Partners VII, L.P.	10,000,000	8,922,153	12,304,905	2,131,412
LLR Equity Partners V, L.P.	12,000,000	11,040,000	2,358,333	12,108,880
Mesirow Financial Capital Partners IX, L.P.	4,000,000	3,840,731	2,021,056	74,400
Ridgemont Equity Partners III, L.P.	12,000,000	7,869,248	654,545	9,929,332
Ridgemont Equity Partners IV	13,000,000	0	0	0
Rimco Production Company, Inc	2,000,000	2,000,000	7,651,066	1
Searchlight Capital III, L.P.	12,000,000	4,442,129	13,200	6,002,508
Siguler Guff Distressed Opportunities Fund III, L.P.	6,000,000	5,820,000	8,539,368	1,111,550
Summit Partners Growth Equity Fund IX, L.P.	10,000,000	11,590,999	4,732,375	21,880,393
Summit Partners Growth Equity Fund XI	13,000,000	0	0	0
Summit Venture V	10,000,000	1,994,519	0	1,994,519
TRG Growth Partnership II, L.P.	7,500,000	7,406,366	7,603,067	1,252,180

Summary | As of November 30, 2021

Note: The value is based on June 30, 2021 FMV.

Private Equity	Commitment	Total Contributions	Total Distributions	Value
Trilantic Capital Partners VI (North America), L.P.	12,000,000	4,281,272	117,744	4,870,500
Waud Capital Partners V, L.P.	10,000,000	6,081,821	0	7,123,128
Wellspring Capital Partners VI, L.P.	12,000,000	7,873,654	0	10,906,727
Total Plymouth County - PE	280,932,838	157,363,214	93,336,064	148,250,629
Real Assets	Commitment	Total Contributions	Total Distributions	Value
Basalt Infrastructure Partners II	10,000,000	9,416,866	488,876	10,530,422
BlackRock Global Renewable Power Fund III	10,000,000	1,115,709	14,116	996,930
BTG Pactual Global Timberland Resources Fund, LLC	5,043,536	5,043,536	1,869,240	1,486,026
Global Infrastructure Partners III, L.P.	10,000,000	9,102,421	2,017,157	9,197,073
Global Infrastructure Partners IV, L.P.	10,000,000	1,494,253	0	1,042,930
IFM Global Infrastructure (U.S.), L.P.	35,000,000	35,000,000	2,445,031	42,838,344
ISQ Global Infrastructure III	10,000,000	0	0	0
JPMorgan Global Maritime Investment	10,000,000	10,034,375	1,297,328	7,142,796
Domain Timbervest Partners III, L.P.	5,000,000	5,000,000	2,590,626	4,481,575
Total Plymouth County - RA	105,043,536	76,207,160	10,722,374	77,716,096
Real Estate	Commitment	Total Contributions	Total Distributions	Value
1921 Realty, Inc.	5,000,000	5,378,194	0	561,585
AEW Partners IX, L.P.	10,000,000	619,297	0	535,767
AEW Partners Real Estate Fund VIII, L.P.	25,000,000	21,549,970	12,056,199	14,760,620
Berkshire Value Fund V, L.P.	9,000,000	3,948,995	31,918	5,067,660
Carlyle Realty Partners VIII, L.P.	18,000,000	9,635,569	3,916,215	7,535,096
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	3,797,527	16,741,962
JPMorgan Strategic Property	27,000,000	27,000,000	552,906	32,799,557
PCCP, LLC	10,000,000	0	0	0
Real Estate International Partnership Fund I, L.P.	15,000,000	12,675,476	11,147,161	1,228,923
Rockpoint Real Estate Fund VI, L.P.	9,000,000	1,655,995	90,341	2,142,585
TA Realty Core Property Fund, L.P.	35,000,000	35,289,972	1,946,958	47,049,478
TerraCap Partners V	5,000,000	3,468,100	37,177	3,475,109
Total Plymouth County - RE	188,000,000	141,301,286	40,982,952	131,898,342

Cash Flow Summary					
Month Ending November 30, 2021					
	Beginning Market Value	Contributions	Withdrawals	Net Cash Flow	Ending Market Value
1921 Realty, Inc	\$561,585	\$0	\$0	\$0	\$561,585
ABS Emerging Markets	\$69,004,968	\$0	\$0	\$0	\$67,181,450
ABS Offshore SPC - Global Segregated Portfolio	\$38,517,669	\$0	\$0	\$0	\$37,500,043
AEW Partners Real Estate Fund IX, L.P.	\$1,027,470	\$0	\$0	\$0	\$1,027,470
AEW Partners Real Estate VIII	\$6,424,833	\$2,439,619	\$0	\$2,439,619	\$8,864,452
Aristotle International Equity	\$24,758,405	\$0	\$0	\$0	\$23,962,889
Ascend Ventures II	\$52,310	\$0	\$0	\$0	\$52,310
Ascent Ventures IV	\$8,478	\$0	\$0	\$0	\$8,478
Ascent Ventures V	\$4,986,732	\$0	\$0	\$0	\$4,986,732
Audax Mezzanine Debt IV	\$4,390,395	\$0	\$0	\$0	\$4,390,395
Basalt Infrastructure Partners II	\$10,530,422	\$0	\$0	\$0	\$10,530,422
Berkshire Value Fund V	\$2,128,919	-\$286,288	-\$34,655	-\$320,943	\$1,807,976
BlackRock Global Renewable Power Infrastructure Fund III, L.P.	\$1,562,333	\$0	\$0	\$0	\$1,562,333
BTG Pactual Global Timberland Resources	\$1,486,026	\$0	\$0	\$0	\$1,486,026
Carlyle Realty Partners VIII	\$7,084,666	\$0	\$0	\$0	\$7,084,666
Cash	\$27,242,188	\$0	-\$19,136,531	-\$19,136,531	\$8,105,657
Charles River Partnership XI	\$12,822	\$0	\$0	\$0	\$12,822
Charlesbank Technology Opportunities Fund	\$6,216,583	\$775,480	-\$5,003	\$770,477	\$6,987,060
DN Partners II, LP	\$1,851,631	\$0	\$0	\$0	\$1,851,631
Driehaus Emerging Markets Growth	\$60,870,508	\$0	\$0	\$0	\$58,686,812
DSF Multi-Family Real Estate Fund III	\$16,131,693	\$0	\$0	\$0	\$16,131,693
Eaton Vance EMD Opportunities Fund	\$22,117,480	\$0	\$0	\$0	\$21,759,998
Eaton Vance High Yield	\$12,719,604	\$0	\$0	\$0	\$12,599,372
Entrust Special Opportunities Fund III, Ltd.	\$20,908,855	\$0	\$0	\$0	\$20,908,855

Summary | As of November 30, 2021

	Beginning Market Value	Contributions	Withdrawals	Net Cash Flow	Ending Market Value
EnTrustPermal Special Opportunities Evergreen Fund, Ltd.	\$20,704,048	\$1,223,529	\$0	\$1,223,529	\$21,927,577
Euro Choice V Programme	\$4,763,505	\$0	\$0	\$0	\$4,763,505
First Eagle Bank Loan Select Fund	\$23,811,874	\$0	-\$13,000,000	-\$13,000,000	\$10,800,879
First Eagle Global Value Fund	\$25,434,877	\$0	\$0	\$0	\$24,571,051
Fisher Midcap Value	\$76,986,092	\$0	-\$6,000,000	-\$6,000,000	\$68,299,670
FS Equity Partners VIII, L.P.	\$6,838,118	\$0	\$0	\$0	\$6,838,118
Global Infrastructure Partners III	\$9,065,661	\$0	-\$141,353	-\$141,353	\$8,924,308
Global Infrastructure Partners IV, L.P.	\$1,829,500	\$0	\$0	\$0	\$1,829,500
Globespan Capital V	\$4,522,339	\$0	\$0	\$0	\$4,522,339
HarbourVest Partners Co-Investment V	\$15,214,141	\$0	\$0	\$0	\$15,214,141
IFM Global Infrastructure	\$42,747,272	\$0	\$0	\$0	\$42,838,344
IR&M Core Bonds	\$56,157,213	\$0	\$0	\$0	\$56,306,837
Ironsides Co-Investment Fund VI, L.P.	\$11,261,173	\$0	\$0	\$0	\$11,261,173
Ironsides Direct Investment Fund V, L.P.	\$19,041,321	\$0	\$0	\$0	\$19,041,321
JP Morgan Global Maritime Investment	\$6,630,191	\$0	\$0	\$0	\$6,630,191
JPMorgan Strategic Property	\$31,516,145	\$0	\$0	\$0	\$32,799,557
Kohlberg Investors IX	\$3,327,117	\$604,763	\$0	\$604,763	\$3,931,880
Kopernik Global All Cap Fund	\$39,048,080	\$0	\$0	\$0	\$37,401,103
Landmark Equity Partners XIV	\$729,822	\$0	\$0	\$0	\$729,822
Lee Munder Global Multi-Cap Strategy	\$46,306,512	\$0	\$0	\$0	\$45,160,437
Leeds Equity Partners IV	\$13,189	\$0	\$0	\$0	\$13,189
Lexington Capital Partners VII	\$1,786,907	\$0	-\$42,629	-\$42,629	\$1,744,278
LLR Equity Partners V, LP.	\$11,597,418	\$0	\$0	\$0	\$11,597,418
LMCG Small Cap Value	\$66,028,490	\$0	\$0	\$0	\$65,216,784
Lord Abbett Short Duration Credit Trust II	\$49,180,155	\$0	\$0	\$0	\$49,089,081
Manulife Strategic Fixed Income	\$35,517,054	\$0	\$0	\$0	\$35,201,347

Summary | As of November 30, 2021

	Beginning Market Value	Contributions	Withdrawals	Net Cash Flow	Ending Market Value
Mellon Small Cap Growth	\$80,079,728	\$0	\$0	\$0	\$73,926,731
Mesirow Financial Capital Partners IX, LP	\$74,400	\$0	\$0	\$0	\$74,400
Mesirow Financial International Real Estate Fund I	\$1,228,923	\$0	\$0	\$0	\$1,228,923
Mesirow High Yield	\$15,673,625	\$0	\$0	\$0	\$15,537,009
Old Farm Partners Master Fund, L.P.	\$11,749,733	\$0	\$0	\$0	\$11,314,716
Rhumblin Russell 1000 Growth	\$70,826,491	\$0	\$0	\$0	\$71,266,748
Rhumblin Russell 1000 Value	\$67,671,032	\$0	\$0	\$0	\$65,293,226
Rhumblin TIPS Trust	\$10,674,889	\$6,999,715	\$0	\$6,999,715	\$17,838,313
Ridgemont Equity Partners III, L.P.	\$9,868,053	\$1,966,962	\$0	\$1,966,962	\$11,835,015
RIMCO Royalty Partners, LP	\$1	\$0	\$0	\$0	\$1
Rockpoint Real Estate Fund VI, L.P.	\$4,682,239	\$732,574	\$0	\$732,574	\$5,414,813
Searchlight Capital III, L.P.	\$5,982,977	\$1,503,002	-\$80,736	\$1,422,266	\$7,405,243
Siguler Guff Distressed Opportunities Fund III, LP	\$1,008,807	\$0	\$0	\$0	\$1,008,807
Summit Partners Growth Equity Fund IX	\$16,489,548	\$0	\$0	\$0	\$16,489,548
Summit Partners Venture Capital Fund V	\$2,333,892	\$243,901	\$0	\$243,901	\$2,577,793
TA Realty Core Property Fund, L.P.	\$47,524,726	\$83,168	-\$558,416	-\$475,247	\$47,049,478
TerraCap Partners V, L.P.	\$3,475,109	\$1,524,804	\$0	\$1,524,804	\$4,999,913
Timbervest Partners III, LP	\$4,176,075	\$0	-\$305,500	-\$305,500	\$3,870,575
TRG Growth Partnership II	\$983,134	\$0	\$0	\$0	\$983,134
Trilantic Capital Partners VI, L.P.	\$6,829,773	\$0	\$0	\$0	\$6,829,773
Walter Scott International Equity	\$21,967,324	\$0	\$0	\$0	\$21,356,622
Waud Capital Partners V	\$8,623,026	\$0	\$0	\$0	\$8,623,026
Wellington Durable Enterprises, L.P.	\$45,231,575	\$0	\$0	\$0	\$42,769,877
Wellspring Capital Partners VI	\$15,033,073	\$2,377,634	-\$2,703,017	-\$325,383	\$14,707,690
Total	\$1,402,842,942	\$20,188,863	-\$42,007,839	-\$21,818,976	\$1,357,106,353

Cash Flow Summary					
From July 01, 2021 through November 30, 2021					
	Beginning Market Value	Contributions	Withdrawals	Net Cash Flow	Ending Market Value
1921 Realty, Inc	\$554,431	\$0	\$0	\$0	\$561,585
ABS Emerging Markets	\$66,903,211	\$5,000,000	\$0	\$5,000,000	\$67,181,450
ABS Offshore SPC - Global Segregated Portfolio	\$32,918,051	\$5,000,000	\$0	\$5,000,000	\$37,500,043
AEW Partners Real Estate Fund IX, L.P.	\$520,709	\$495,438	-\$3,735	\$491,703	\$1,027,470
AEW Partners Real Estate VIII	\$13,312,570	\$2,439,619	-\$8,335,787	-\$5,896,168	\$8,864,452
Aristotle International Equity	\$21,251,820	\$2,500,000	\$0	\$2,500,000	\$23,962,889
Ascend Ventures II	\$56,591	\$0	\$0	\$0	\$52,310
Ascent Ventures IV	\$8,872	\$0	\$0	\$0	\$8,478
Ascent Ventures V	\$4,199,088	\$0	\$0	\$0	\$4,986,732
Audax Mezzanine Debt IV	\$4,401,905	\$198,459	-\$464,850	-\$266,391	\$4,390,395
Basalt Infrastructure Partners II	\$10,441,804	\$0	\$0	\$0	\$10,530,422
Berkshire Value Fund V	\$4,548,548	-\$286,288	-\$2,973,396	-\$3,259,684	\$1,807,976
BlackRock Global Renewable Power Infrastructure Fund III, L.P.	\$599,857	\$565,403	\$0	\$565,403	\$1,562,333
BTG Pactual Global Timberland Resources	\$1,399,897	\$0	\$0	\$0	\$1,486,026
Carlyle Realty Partners VIII	\$6,716,174	\$1,352,447	-\$1,802,877	-\$450,430	\$7,084,666
Cash	\$10,010,197	\$22,428,817	-\$24,335,192	-\$1,906,374	\$8,105,657
Charles River Partnership XI	\$12,845	\$0	\$0	\$0	\$12,822
Charlesbank Technology Opportunities Fund	\$4,456,052	\$1,717,194	-\$5,003	\$1,712,191	\$6,987,060
DN Partners II, LP	\$1,828,060	\$0	\$0	\$0	\$1,851,631
Driehaus Emerging Markets Growth	\$63,600,127	\$0	\$0	\$0	\$58,686,812
DSF Multi-Family Real Estate Fund III	\$16,054,393	\$0	-\$610,269	-\$610,269	\$16,131,693
Eaton Vance EMD Opportunities Fund	\$22,178,337	\$0	\$0	\$0	\$21,759,998
Eaton Vance High Yield	\$24,566,418	\$0	-\$12,000,000	-\$12,000,000	\$12,599,372

Summary | As of November 30, 2021

	Beginning Market Value	Contributions	Withdrawals	Net Cash Flow	Ending Market Value
Entrust Special Opportunities Fund III, Ltd.	\$21,615,340	\$0	-\$457,317	-\$457,317	\$20,908,855
EnTrustPermal Special Opportunities Evergreen Fund, Ltd.	\$20,328,735	\$1,223,529	\$0	\$1,223,529	\$21,927,577
Euro Choice V Programme	\$4,202,603	\$0	-\$420,625	-\$420,625	\$4,763,505
First Eagle Bank Loan Select Fund	\$23,438,009	\$0	-\$13,000,000	-\$13,000,000	\$10,800,879
First Eagle Global Value Fund	\$25,124,712	\$0	\$0	\$0	\$24,571,051
Fisher Midcap Value	\$71,206,369	\$0	-\$6,000,000	-\$6,000,000	\$68,299,670
FS Equity Partners VIII, L.P.	\$5,062,437	\$1,148,389	\$0	\$1,148,389	\$6,838,118
Global Infrastructure Partners III	\$8,958,939	\$139,566	-\$412,331	-\$272,765	\$8,924,308
Global Infrastructure Partners IV, L.P.	\$1,091,204	\$786,570	\$0	\$786,570	\$1,829,500
Globespan Capital V	\$5,118,518	\$0	-\$260,326	-\$260,326	\$4,522,339
HarbourVest Partners Co-Investment V	\$13,881,966	\$900,000	-\$455,368	\$444,632	\$15,214,141
IFM Global Infrastructure	\$42,487,564	\$0	-\$1,749,889	-\$1,749,889	\$42,838,344
IR&M Core Bonds	\$56,053,816	\$0	\$0	\$0	\$56,306,837
Ironsides Co-Investment Fund VI, L.P.	--	\$11,261,173	\$0	\$11,261,173	\$11,261,173
Ironsides Direct Investment Fund V, L.P.	\$17,562,706	\$0	\$0	\$0	\$19,041,321
JP Morgan Global Maritime Investment	\$5,640,557	\$0	-\$512,605	-\$512,605	\$6,630,191
JPMorgan Strategic Property	\$29,311,819	-\$69,839	-\$72,743	-\$142,582	\$32,799,557
Kohlberg Investors IX	\$894,306	\$2,779,305	\$0	\$2,779,305	\$3,931,880
Kopernik Global All Cap Fund	\$37,785,404	\$0	\$0	\$0	\$37,401,103
Landmark Equity Partners XIV	\$955,431	\$0	-\$143,461	-\$143,461	\$729,822
Lee Munder Global Multi-Cap Strategy	\$39,902,071	\$5,000,000	\$0	\$5,000,000	\$45,160,437
Leeds Equity Partners IV	\$13,187	\$0	\$0	\$0	\$13,189
Leeds Equity Partners V	\$1,139,385	\$8,274	-\$680,349	-\$672,075	--
Lexington Capital Partners VII	\$1,958,184	\$0	-\$387,134	-\$387,134	\$1,744,278
LLR Equity Partners V, LP.	\$10,895,219	-\$511,462	\$0	-\$511,462	\$11,597,418
LMCG Small Cap Value	\$78,271,247	\$0	-\$15,000,000	-\$15,000,000	\$65,216,784

Summary | As of November 30, 2021

	Beginning Market Value	Contributions	Withdrawals	Net Cash Flow	Ending Market Value
Lord Abbett Short Duration Credit Trust II	\$37,145,729	\$12,000,000	\$0	\$12,000,000	\$49,089,081
Manulife Strategic Fixed Income	\$30,762,249	\$5,000,000	-\$31,584	\$4,968,416	\$35,201,347
Mellon Small Cap Growth	\$79,672,302	\$0	\$0	\$0	\$73,926,731
Mesirow Financial Capital Partners IX, LP	\$73,162	\$0	\$0	\$0	\$74,400
Mesirow Financial International Real Estate Fund I	\$1,260,872	\$0	\$0	\$0	\$1,228,923
Mesirow High Yield	\$12,460,000	\$5,000,000	-\$2,000,000	\$3,000,000	\$15,537,009
Old Farm Partners Master Fund, L.P.	\$6,379,953	\$5,000,000	\$0	\$5,000,000	\$11,314,716
Rhumblin Russell 1000 Growth	\$59,537,981	\$9,998,598	-\$5,003,000	\$4,995,598	\$71,266,748
Rhumblin Russell 1000 Value	\$54,891,393	\$14,994,708	-\$5,000,267	\$9,994,441	\$65,293,226
Rhumblin TIPS Trust	\$10,371,013	\$6,999,715	\$0	\$6,999,715	\$17,838,313
Ridgemont Equity Partners III, L.P.	\$8,266,231	\$2,344,751	-\$439,068	\$1,905,683	\$11,835,015
RIMCO Royalty Partners, LP	\$1	\$0	\$0	\$0	\$1
Rockpoint Real Estate Fund VI, L.P.	\$1,710,806	\$3,272,228	\$0	\$3,272,228	\$5,414,813
Searchlight Capital III, L.P.	\$5,377,147	\$2,479,974	-\$1,077,239	\$1,402,735	\$7,405,243
Siguler Guff Distressed Opportunities Fund III, LP	\$1,076,478	\$0	-\$102,743	-\$102,743	\$1,008,807
Summit Partners Growth Equity Fund IX	\$17,959,214	\$0	-\$5,390,845	-\$5,390,845	\$16,489,548
Summit Partners Venture Capital Fund V	\$531,919	\$2,045,874	\$0	\$2,045,874	\$2,577,793
TA Realty Core Property Fund, L.P.	\$43,251,622	\$158,859	-\$1,066,622	-\$907,763	\$47,049,478
TerraCap Partners V, L.P.	\$3,446,707	\$1,524,804	\$0	\$1,524,804	\$4,999,913
Timbervest Partners III, LP	\$4,407,578	\$0	-\$611,000	-\$611,000	\$3,870,575
TRG Growth Partnership II	\$1,106,860	\$0	-\$269,047	-\$269,047	\$983,134
Trilantic Capital Partners VI, L.P.	\$4,235,952	\$2,109,786	-\$150,513	\$1,959,273	\$6,829,773
Walter Scott International Equity	\$21,369,463	\$0	-\$81,194	-\$81,194	\$21,356,622

Summary | As of November 30, 2021

	Beginning Market Value	Contributions	Withdrawals	Net Cash Flow	Ending Market Value
Waud Capital Partners V	\$6,408,831	\$1,499,898	\$0	\$1,499,898	\$8,623,026
Wellington Durable Enterprises, L.P.	\$44,066,874	\$0	\$0	\$0	\$42,769,877
Wellspring Capital Partners VI	\$9,855,206	\$6,503,980	-\$2,703,017	\$3,800,963	\$14,707,690
Total	\$1,299,065,229	\$145,009,768	-\$114,009,393	\$31,000,375	\$1,357,106,353

Current Issues

Small Cap Value Equity Manager Finalist Review

Background

- The Association currently employs LMCG to manage its domestic small cap value allocation, which represents roughly 5% of the total portfolio.
 - As of November 30, 2021, LMCG managed approximately \$65.2 million on behalf of the Association.
- Since inception in March 2011, LMCG has generated an annual return of 9.4%, net of fees, slightly trailing the benchmark's 9.6% annual return over that same period.
- In August, Meketa Investment Group issued an RFP on behalf of the Association to evaluate the US small cap value universe.
- At the December meeting, the Board voted to interview three firms as finalists for this mandate, Systematic Financial Management, Vaughan Nelson Investment Management, and Vulcan Value Partners, LLC.
- In this document we will review the three finalist managers.

Investment Manager Overview

	Systematic Financial Management	Vaughan Nelson Investment Management	Vulcan Value Partners, LLC
Firm Location	Teaneck, NJ	Houston, TX	Birmingham, AL
Firm Inception	1982	1970	2007
Strategy Name	Small Cap Value Cash Flow	Small Cap Value Fund	Small Cap
Strategy Inception	1993	1997	2007
Assets Under Management (Strategy) ¹	\$3.4 billion	\$3.6 billion	\$1.9 billion
Asset Under Management (Firm) ¹	\$3.6 billion	\$15.2 billion	\$20.4 billion

¹ Data as of September 30, 2021.

Systematic Financial Management

Organization

- Systematic Financial Management (“Systematic”) was founded in December 1982 in Teaneck, NJ. The firm focuses on value-oriented equity strategies and offers both US and international equity products.
- Systematic is a wholly-owned affiliate of Affiliated Managers Group (“AMG”), a publicly traded global asset management company (NYSE: AMG). AMG owns stakes in dozens of investment boutiques. The company arranges revenue share agreements with its managers. AMG offers centralized business functions if desired by its affiliates, but allows investment teams autonomy in managing both their portfolios and their businesses.
- Systematic manages \$3.6 billion in assets as of 09/30/2021, including \$3.4 billion in Small Cap Value Free Cash Flow. The firm also manages a SMID Cap Value Free Cash Flow portfolio that follows the same investment approach as its Small Cap Value Free Cash Flow brethren and has \$170 million in AUM.

Systematic Financial Management

Investment Team

- Portfolio manager Kenneth Burgess leads the investment team. Mr. Burgess has spent his entire investment career at Systematic, which he joined in 1993. He has managed the Small Cap Value Free Cash Flow strategy since 1996, and he became a partner of the firm in 1997. Mr. Burgess also manages the SMID Cap Value Free Cash Flow strategy with the same investment team. Mr. Burgess studied as an undergraduate at New Hampshire College (now Southern New Hampshire University). He is a CFA Charterholder.
- Mr. Burgess is supported by a team of five analysts who joined the firm between 2004 and 2008. These individuals each cover multiple sectors. Most sectors are covered by at least one analyst. Ryan Wick joined Systematic in 2005. He began his investment career in 1999 at ABM Amro as an associate equity research analyst. Prior to joining Systematic, Mr. Wick was an equity analyst with Axe-Houghton Associates. Rick Plummer joined Systematic in 2004. He started his investment career in 1994 at Value Line, where he served as a senior industry analyst and lead editor of the firm's daily supplemental stock reports. Christopher Lippincott joined Systematic in 2008. He began his investment career in 1996 at Alexander, Wescott & Co. as an equity analyst. In 2000, he joined Keybank Capital Markets as a senior equity analyst. Prior to joining Systematic, he was a senior industry analyst at Standard & Poor's. Matthew Tangel joined Systematic in 2008. Previously, he worked at FactSet Research Systems for two years. Brian Kostka joined Systematic in 2007. Previously, he was an equity analyst with Estabrook Capital. He started his investment career in 2004 at UBS Investment Research.

Systematic Financial Management

Investment Philosophy

- Mr. Burgess believes that the value of a company is determined by the stream of cash flows that it will generate, and that the company's value will eventually be recognized by the market. He focuses the team on companies with sustainable and predictable cash flows.
- The team emphasizes companies with strong balance sheets, including low leverage, low capital intensity, and strong cash flow debt coverage. The team conducts credit-type analysis of target companies. By focusing on financial strength, Mr. Burgess is trying to avoid large detractors.
- The investment team holds businesses for the long-term to let the cash flows compound. The portfolio has an average holding period of five plus years and average annual turnover of ~20%.

Systematic Financial Management

Investment Process

- The investment process begins with a quantitative screen of the Russell 2000 index. The screen's metrics are largely cash flow and balance sheet based including price/operating cash flow, price/free cash flow, enterprise value/free cash flow, total debt to capitalization, and debt coverage.
- This quantitative screen narrows the investable universe to 400 stocks, which the team refers to as the "Research Focus List." Analysts then fundamentally analyze the target companies. They begin by reviewing the business model. They attempt to identify and understand the key business attributes in order to assess the sustainability of the business model. They also review and analyze company management and its strategy for executing the business model. Meeting with company management is a key element of the due diligence process.
- If the business model appears promising, then the analyst constructs a financial model. The model generates forecasts for revenues, expenses, margins, profitability, operating cash flow, free cash flow, and capital spending. The analyst models years 1 through 4. In year 5 and beyond, he/she tries to determine the sustainable growth rate of the cash flow. "Normalized" free cash flow is ultimately what the analyst is trying to derive.

Systematic Financial Management

Investment Process (con't)

- The team then uses this information to value the company. The analyst will value the company both by applying appropriate cash flow multiples, focusing on enterprise value to EBITDA, and using the output of the discounted cash flow (DCF) model. If a stock is trading at least at a 15% discount to the team's intrinsic value estimate, then it is eligible for inclusion in the portfolio. They will typically look for catalysts to close the valuation gap. Mr. Burgess makes final investment decisions.
- The final portfolio will hold 100 to 150 stocks. Position sizes are limited to 5% of the total portfolio.

Vaughan Nelson Investment Management

Organization

- Founded in 1970, Vaughan Nelson (VN) is a Houston, Texas based asset manager. Vaughan Nelson has been wholly owned by Natixis Global Asset Management, a large French asset management company, since 1996. Natixis owns 12 specialized investment managers throughout the world. Natixis allows each manager to operate autonomously and to manage its own strategies while providing operational and marketing support. Each manager controls its income statement.
- As of September 30, 2021, the majority of the firm's \$15.2 billion in assets are in two US equity products. The Small Cap Value strategy had \$3.6 billion. The firm also manages two fixed income strategies and recently lifted out an international equity team from Advisory Research.

Vaughan Nelson Investment Management

Investment Team

- CIO and Lead PM Chris Wallis leads the Small Cap Value investment team. Mr. Wallis performs company level research, provides macroeconomic insights, and is the final decision maker for the Small Cap Value portfolio. He joined Vaughan Nelson in 1999 and started in the investment industry in 1991. Before coming to Vaughan Nelson, Mr. Wallis was an accountant at Coopers & Lybrand and an analyst at Simmons & Company. He has his CFA and is a CPA. BBA – Baylor University; MBA – Harvard Business School.
- Stephen Davis was formally named Mr. Wallis's co-PM on Small Cap Value on January 1, 2019. Prior to his formal appointment, Mr. Davis had been participating in portfolio management discussions with Mr. Wallis on an informal basis. Mr. Davis has been in the investment industry since 2005 and joined VN in 2010. Prior to VN, he was an analyst at Goldman Sachs for 4.5 years. Mr. Wallis continues to have final decision-making authority on the strategy, while Mr. Davis adds his perspective and acts as a sounding board for Mr. Wallis. Mr. Davis also runs the weekly Small Cap Value team meetings and parses out coverage responsibilities to the analysts.
- Messrs. Wallis and Davis are supported by a team of six fundamental equity analysts who joined VN between 2016 and 2021. The analysts are generalists, covering companies across sectors, though some have expertise in certain sectors. These individuals support VN's three US equity strategies. The team also has a risk officer, William Wojciechowski, who prepares monthly risk packets that help the portfolio managers better understand their factor bets and measure the consistency of their philosophy and process.

Vaughan Nelson Investment Management

Investment Philosophy

- Vaughan Nelson believes that stocks can experience short-term declines in price and trade below their long-term intrinsic value due to information and liquidity inefficiencies. Mr. Wallis views the change in Return on Invested Capital (ROIC) as the key driver of stock price appreciation.
- Mr. Wallis is a flexible value manager. He looks for companies with undervalued earnings growth, companies that trade a discount to their asset value, and companies with an attractive dividend yield. Mr. Wallis believes that investing in these three categories enhances performance across different markets.
- Although the portfolio sector weights are driven by bottom-up stock selection, unlike many portfolio managers, Mr. Wallis does think about the macroeconomic environment, and his views play a role in idea generation and portfolio construction.
- The portfolio has an average holding period of approximately three years and average annual name turnover of about 30%.

Vaughan Nelson Investment Management

Investment Process

- Vaughan Nelson's investment universe comprises all stocks in the Russell 2000 Value index. Vaughan Nelson screens for companies with attractive ROE, ROA, P/B, P/E, debt-to-cap, and dividend yield. The team looks for inexpensive stocks. They also run qualitative screens that may lead them to mispriced securities, including changes in senior management or insider stock purchases. Mr. Wallis also takes a thematic approach to finding ideas and uses industry specific screens to identify perceived temporary market inefficiencies. The investment team looks for sectors that are out-of-favor and have experienced reductions in capital and capacity. Mr. Wallis also finds opportunities in cyclical industries that are trading at trough valuation levels.
- The team groups companies into one of the three categories. These are: 1) companies with undervalued earnings growth, 2) companies trading at a discount to their asset value, and 3) companies with attractive dividend yields that are inexpensive. Companies in the first category are investing in themselves at higher ROICs, and the asset utilization is improving. Undervalued assets are deeper value ideas. These companies include traditional asset plays, companies with strong franchise value, and cyclical companies. These types of companies must have catalysts in place to close the valuation gap. A small number of stocks in the portfolio fall into the undervalued dividend category. Mr. Wallis believes that the economic and credit cycle influence investment opportunities in each of the three categories. There are no pre-determined exposure ranges for each.

Vaughan Nelson Investment Management

Investment Process (con't)

- The screens produce a list of candidate companies, which are prioritized by Messrs. Wallis and Davis. Ideas are assigned to the portfolio managers and analysts based on capacity. Both portfolio managers and analysts perform fundamental due diligence. Vaughan Nelson's due diligence includes financial statement analysis, meeting with management, evaluation of the company's strategy, assessment of cyclical forces and secular trends, and discussions with customers, suppliers, competitors, and other industry participants.
- Once the due diligence is completed, the analyst creates a five-year pro forma balance sheet and income statement and builds a discounted cash flow model to calculate the company's intrinsic value. He/she also formulates an investment thesis.
- Once presented with the research, Messrs. Wallis and Davis decide whether the stock should be included in the portfolio. They are absolute return oriented, and stocks need to have at least 50% appreciation potential over their three-year investment horizon. They maintain a database of all the companies they research. Companies with favorable qualities but unattractive valuations are monitored closely. Keeping track of these companies allows Vaughan Nelson to act quickly if a company's valuation becomes appealing.
- The portfolio typically holds 55-85 stocks (currently 65). Positions begin between 50bps and 300bps depending on the level of conviction and the liquidity of the stock. The largest positions in the portfolio are between 2.5% and 3.0%. Annual portfolio turnover approximates 60-80%, with name turnover of about 30%.
- Positions are trimmed or sold when they are within 10% of intrinsic value, the company is facing increased competitive pressures, management makes poor decisions, or the investment thesis deteriorates.

Vulcan

Organization

- Vulcan Value Partners was founded in 2007 in Birmingham, AL by C.T. Fitzpatrick. Mr. Fitzpatrick spent his formative years in the business at Southeastern Asset Management, which follows a deeper value investment approach. His impetus for starting Vulcan was a desire to focus on higher quality, more stable companies. While Mr. Fitzpatrick follows a similar bottom-up, research-driven, value-oriented investment approach at Vulcan as he did at Southeastern, he is applying this process to a higher quality sub-set of businesses.
- The firm is majority employee-owned (83%). The remainder of the firm is owned by a group of outside investors known to Mr. Fitzpatrick who provided working capital at the firm's outset. These partners are silent, and no one outside partner owns more than a 2% stake.
- Vulcan focuses on only three strategies, including Large Cap Value, Small Cap Value, and All Cap Value, all of which follow the same investment approach. The firm manages \$20.4 billion as of September 30, 2021. Small Cap Value had \$1.9 billion.

Vulcan

Investment Team

- C.T. Fitzpatrick leads the investment team, which supports all three Vulcan strategies. He is Vulcan's CIO. Mr. Fitzpatrick started his investment career in 1986 as a capital markets analyst at Merrill Lynch. He subsequently spent 17 years at Southeastern Asset Management, where he learned value investing under the tutelage of value investor Mason Hawkins. Over time, his personal value investing philosophy evolved from a primary focus on the cheapness of a company, which was Southeastern's main emphasis, to the quality and stability of the company. He struck out on his own to start Vulcan in 2007 with a focus on higher quality companies. He has led the investment team at Vulcan since starting the firm.
- A team of two Co-PMs, a Director of Research, and three Analysts support Mr. Fitzpatrick. Everyone at the firm, including Mr. Fitzpatrick, is a generalist and has analytical responsibilities. Although multiple individuals share Co-PM titles, decisions are largely consensus-driven, with Mr. Fitzpatrick retaining final decision-making authority. The team collectively averages 21 years of investment experience. The senior members of the team have worked together for a long time.

Vulcan

Investment Philosophy

- Vulcan's first priority is to preserve investor capital. Vulcan believes that by investing in quality companies at a discount to intrinsic value, it can minimize risk and earn strong absolute returns over the long-term.
- Rather than look for stocks that are cheap first, Vulcan will look for good companies, then invest once the valuation becomes attractive. Vulcan defines a good company as one that generates stable and growing free cash flow and has high cash returns on capital. Vulcan is not concerned with short-term stock price volatility, but focuses on long-term value volatility, with the value of a company being based on its free cash flows. Intrinsic value growth will play a meaningful component in total returns.
- Vulcan looks to own the entire business enterprise for the long-term, so they have a five-plus year investment horizon. Given the absolute return focus, the portfolio is benchmark agnostic. Mr. Fitzpatrick believes in managing concentrated portfolios to give the team's best ideas the opportunity to make a meaningful impact.

Vulcan

Investment Process

- The first step in the process is for the analysts to identify good companies. A good business has stable and growing free cash flow, high returns on invested capital, sustainable competitive advantages, and experienced management teams that have a good track record of allocating capital.
- In most cases, multiple members of the team will work on a stock. The team speaks with management and often goes onsite to plants or locations. They will also speak with customers, suppliers, and competitors.
- The team discusses the idea. Concerns are raised and more work is often performed to address any outstanding questions. The follow-up calls or meetings are typically performed with multiple members of the Vulcan team participating. After the follow-up is complete, the findings will be vetted by the team once again. Decisions are made by consensus. If needed, Mr. Fitzpatrick has final decision-making authority, but he rarely exercises it. If the company is deemed to be a good business, it will make the “MVP list”, which comprises the group of companies worth owning if valuation becomes adequately attractive.
- Once a name is added to the MVP list, the Analysts comb through this list to find ones that are attractively valued. They tend to use conservative cash flow growth rates as it provides for a higher margin of safety. The Analyst builds a discounted cash flow model to determine his/her estimate of intrinsic value. The team views valuation as a ratio of price/value, which is simply a ratio of what the stock trades at relative to Vulcan’s estimate of intrinsic value, which is the present value of the company’s free cash flow. The lower the price/value, the more attractive is the investment. If valuation is compelling enough to provide typically a minimum 20% margin of safety, the stock will be added.

Vulcan

Investment Process (con't)

- Position sizing is a function of the level of the price/value ratio, industry exposure, and percentage ownership in a business. A core position is 5%, but the team will have position sizes as small as 1% when price/value ratios are higher. Individual positions are limited to 10% of the portfolio, and the strategy generally holds 25-30 stocks.

Portfolio Characteristics¹ (As of September 30, 2021)

	Systematic	Vaughan Nelson	Vulcan	Russell 2000 Value
Price-Earnings Ratio	13.6	17.1	29.4	12.1
Price-Book Value Ratio	1.9	2.4	3.3	1.5
Dividend Yield	1.3	0.9	0.6	1.6
Return-On-Equity	5.3	7.1	2.8	-1.0
Historical Earnings Growth	10.7	12.1	5.5	8.1
Projected Earnings Growth	18.4	13.0	24.4	12.7
Weighted Average Market	\$3.9B	\$6.1B	\$6.1B	\$2.9B
Median Market Cap	\$2.5B	\$4.5B	\$3.9B	\$1.1B
Number of Holdings	150	66	29	1,429
Active Share	50.0%	94.7%	99.3%	--

¹ Source: eVestment Alliance Database, FactSet, manager data.

Risk Statistics (gross of fees) (Common Period April 2007- September 2021)

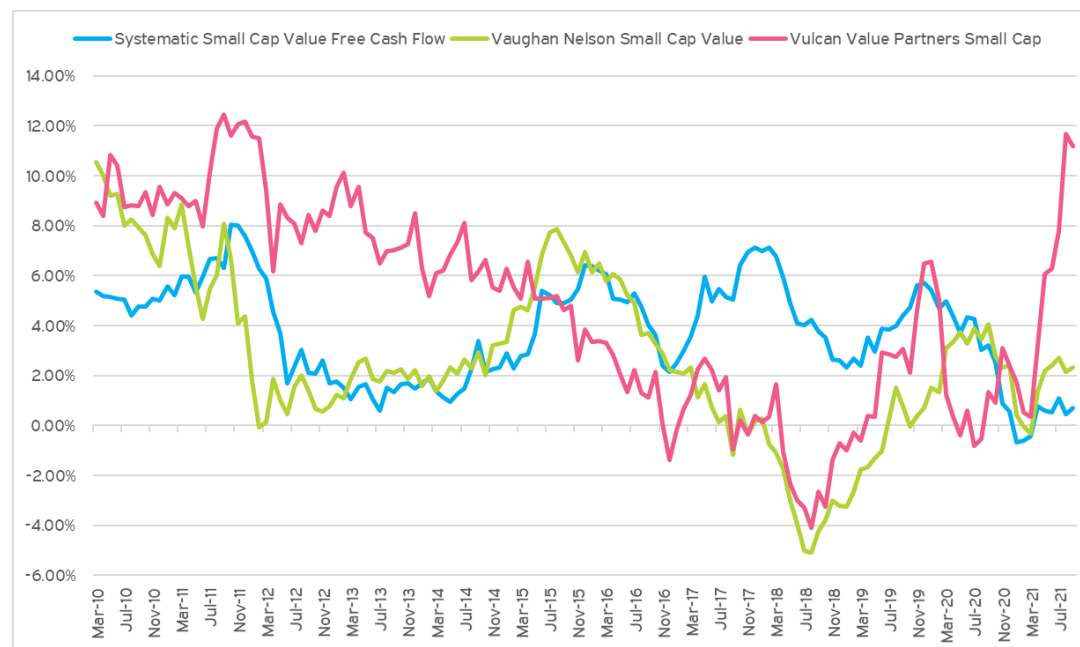
	Systematic	Vaughan Nelson	Vulcan Partners	<i>Russell 2000 Value</i>
Performance				
Performance (%)	10.4	10.8	13.0	7.0
Risk Measures				
Standard Deviation (%)	20.4	18.0	21.4	21.0
Tracking Error (%)	4.2	6.6	8.8	0.0
Beta	0.95	0.82	0.93	1.00
Correlation to Benchmark	0.98	0.95	0.91	1.00
Upside Capture (%)	103.7	90.9	99.6	100.0
Downside Capture (%)	93.5	82.0	82.7	100.0
Risk-Adjusted Performance				
Jensen's Alpha (%)	3.4	4.5	6.3	0.0
Sharpe Ratio	0.47	0.56	0.57	0.30
Information Ratio	0.80	0.57	0.68	--

- Systematic has the best risk-adjusted performance as measured by active risk. It has the highest information ratio given its low tracking error and strong excess returns.
- Vulcan has the best risk-adjusted performance as measured by market risk. It has the highest Jensen's Alpha, which is due in part to both strong excess returns and a beta of 0.93.
- All three managers protect on the downside.

Historical Performance (gross of fees) (As of September 30, 2021)

	Systematic	Vaughan Nelson	Vulcan Partners	<i>Russell 2000 Value</i>
Trailing Year Returns (%):				
1 Year	56.3	53.5	109.2	63.9
3 Year	9.3	10.9	19.8	8.6
5 Year	13.6	11.1	16.8	11.0
7 Year	13.1	10.7	14.4	10.2
10 Year	16.3	14.4	18.0	13.2
Calendar Year Returns (%):				
2020	5.0	9.8	-1.6	4.6
2019	25.6	26.0	37.5	22.4
2018	-14.1	-13.6	-11.7	-12.9
2017	25.0	7.8	13.4	7.8
2016	23.9	21.4	21.2	31.7
2015	2.6	1.0	-3.3	-7.5
2014	6.1	10.1	4.3	4.2
2013	41.5	40.4	42.7	34.5
2012	16.9	16.3	27.1	18.1
2011	-5.7	-2.5	2.5	-5.5

Rolling 3-Year Excess Returns¹ (As of September 30, 2021)



	Total Periods	Periods Outperformed	Percentage	Avg. Annual Excess	Median Annual Excess	Max	Min	Range
Systematic vs Russell 2000 Value	139	136	98	3.8	4.0	8.0	-0.7	8.7
Vaughan vs Russell 2000 Value	139	116	83	2.7	2.2	10.6	-5.1	15.7
Vulcan vs Russell 2000 Value	139	120	86	4.7	5.1	12.5	-4.1	16.6

¹ Gross of fees.

Fees & Terms

	Systematic	Vaughan Nelson	Vulcan Partners
Vehicle Type	Separate Account	Separate Account	Separate Account
Estimated Effective Fee	0.76%	0.79%	0.83%

Investment Policy Review / Update

Recommendation

After conducting a review of the Association's Investment Policy Statement (IPS), Meketa has the following recommendations:

1) Update the Real Estate asset class benchmark to the NCREIF ODCE Index to better reflect the current mix of the Association's Real Estate investments.

- The current Real Estate benchmark is a mix of 80% NCREIF ODCE / 20% Wilshire REIT.
- The NCREIF-ODCE is a market capitalization-weighted index of the largest private open-end Real Estate funds. Alternatively, the Wilshire REIT is a market-capitalization weighted index of publicly traded real estate securities and is intended to provide a broad measure of the performance of publicly traded real estate equities.
- In 2019, the Board vote to terminate its publicly traded real estate exposure (Invesco Equity Real Estate Securities Trust). Since that termination, the Association has only been invested in private real estate vehicles.
- As no additional public real estate vehicles have been added since the 2019 termination, Meketa recommends the board adjust its Real Estate benchmark to be 100% NCREIF ODCE.

Recommendation (con't)

#2) Update the Value-Added Fixed Income benchmark in the IPS to a custom blend of 25% BBgBarc US High Yield, 25% Credit Suisse Leveraged Loans, 25% JP Morgan EMBI Global diversified, and 25% BBgBarc Multiverse TR and to match the Meketa performance report.

- The Value-Added Fixed Income benchmark in the IPS is a custom blend of 33% Bloomberg Barclays High Yield, 33% CSFB Bank Loan Index, and 33% JP Morgan EMBI Global Diversified.
- With the addition of the Manulife Strategic Fixed Income investment, Meketa updated the reported benchmark in the monthly reports but it was not memorialized with an update in the IPS.
- We recommend the board formalize that change within the IPS document.

Summary

We believe the above updates to the IPS document will help ensure the collection of benchmark vehicles remain tailored to the Associations evolving investment portfolio.

Appendix

Disclaimer, Glossary, and Notes

WE HAVE PREPARED THIS REPORT (THIS "REPORT") FOR THE SOLE BENEFIT OF THE INTENDED RECIPIENT (THE "RECIPIENT").

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

SI: Since Inception

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.