City of Ann Arbor Employees' Retirement System and VEBA

Investment Review February <u>4</u>, 2020

Fund Evaluation Report

**Retirement System** 

**Retirement System Summary** 



	Allocation vs. Targets a	nd Policy		
	Current Balance	Current Allocation	Policy	Policy Range
US Equity	\$167,608,241	31%	31%	25% - 37%
Developed Market Equity	\$70,255,120	13%	12%	9% - 15%
Emerging Market Equity	\$36,370,136	7%	6%	0% - 9%
Investment Grade Bonds	\$91,799,244	17%	19%	15% - 24%
TIPS	\$21,495,412	4%	8%	0% - 10%
Emerging Market Bonds	\$13,171,718	2%	2%	0% - 4%
High Yield Bonds	\$21,671,018	4%	3%	1% - 5%
Bank Loans	\$11,384,789	2%	2%	0% - 4%
Private Equity	\$21,822,467	4%	3%	0% - 5%
Real Estate	\$44,450,746	8%	9%	2% - 12%
Natural Resources	\$8,697,687	2%	3%	0% - 5%
Hedge Funds	\$17,268,580	3%	2%	1% - 5%
Cash	\$11,383,064	2%	0%	0% - 5%
Total	\$537,378,221	100%	100%	



#### Total Fund Aggregate | As of December 31, 2019

	Asset (	Class Perf	orman	ce Sum	mary						
	Market Value (\$)	% of Portfolio	QTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)	Inception I (%)	nception Date
Total Fund Aggregate	537,378,221	100.0	5.1	5.9	17.6	8.8	7.0	8.0	8.3	8.4	Oct-90
Total Fund Aggregate (Net of Fees)			5.0	5.8	17.4	8.6	6.8	7.8	8.0		
Policy Benchmark			5.3	6.1	18.0	9.3	7.1	7.7	8.3	8.5	Oct-90
60% MSCI ACWI / 40% Barclays Aggregate			5.4	6.4	19.4	9.2	6.4	7.0	7.0	7.5	Oct-90
Total Domestic Equity	167,608,241	31.2	8.6	9.9	30.5	13.4	11.1	14.1	13.7	10.5	Oct-90
Russell 3000			9.1	10.4	31.0	14.6	11.2	14.4	13.4	10.8	Oct-90
Total International Developed Market Equity	70,255,120	13.1	8.4	7.6	24.8	11.9	7.1	6.8	6.4	8.3	Oct-95
MSCI EAFE			8.2	7.0	22.0	9.6	5.7	6.3	5.5	5.0	Oct-95
Total International Emerging Market Equity	36,370,136	6.8	8.5	2.2	14.4	10.6	5.9	3.4		4.0	Feb-12
MSCI Emerging Markets			11.8	7.1	18.4	11.6	5.6	3.3	3.7	3.7	Feb-12
Total Investment Grade Bonds	91,799,244	17.1	0.5	2.2	7.6	3.6	2.8	2.6	3.8	5.9	Oct-90
BBgBarc US Aggregate TR			0.2	2.5	8.7	4.0	3.0	2.7	3.7	5.9	Oct-90
BBgBarc US Universal TR			0.5	2.6	9.3	4.3	3.4	3.0	4.1	6.2	Oct-90
Total TIPS	21,495,412	4.0	1.0	1.6	6.9	2.8	2.4			1.8	Nov-13
BBgBarc US TIPS TR			0.8	2.1	8.4	3.3	2.6	1.1	3.4	2.3	Nov-13
BBgBarc US TIPS 1-10 Yr TR			1.0	1.6	6.9	2.8	2.4	1.0	2.6	1.8	Nov-13
Total High Yield Bonds*	21,671,018	4.0	2.2	4.4	13.7	6.2	6.0	5.8	7.2	8.6	Jul-09
BBgBarc US High Yield TR			2.6	4.0	14.3	6.4	6.1	5.8	7.6	9.2	Jul-09
* One or more accounts have been extruded from the composite for the nurses	es of performance calculatio	and market valu	10								

\* One or more accounts have been exlcuded from the composite for the purposes of performance calculations and market value.



#### Total Fund Aggregate | As of December 31, 2019

	Market Value (\$)	% of Portfolio	QTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)	Inception II (%)	nception Date
Total Bank Loans	11,384,789	2.1	1.8	3.3	9.2	4.3	4.3	4.5		5.0	Apr-12
Credit Suisse Leveraged Loans			1.7	2.6	8.2	4.5	4.5	4.4	5.2	4.7	Apr-12
Total Emerging Market Debt (Net of Fees)	13,171,718	2.5	5.2	3.8	13.1	5.6	1.7	-2.0		-0.2	Jun-12
JP Morgan GBI EM Global Diversified TR USD			5.2	4.4	13.5	7.0	2.8	-0.2	2.7	1.7	Jun-12
Total Real Estate	44,450,746	8.3	1.3	3.7	6.9	8.2	9.7	11.6	11.9	8.1	Jul-03
NCREIF ODCE Equal Weighted			1.5	2.9	6.1	7.4	9.3	10.3	11.5	7.9	Jul-03
Total Natural Resources (Net of Fees)	8,697,687	1.6	9.9	15.9	39.0					6.8	Jul-17
FTSE Gold Mines PR USD			8.6	13.3	41.2	11.0	11.4	-5.3	-4.6	11.9	Jul-17
S&P Global Natural Resources Index TR USD			9.5	2.9	17.2	7.9	4.8	2.1	1.6	8.7	Jul-17
Total Hedge Funds	17,268,580	3.2	0.1	-2.0	-1.6	-1.0	-1.4	0.8	1.0	2.0	Jul-09
HFRI Fund Weighted Composite Index			3.5	2.9	10.4	4.5	3.5	4.2	4.0	4.7	Jul-09
MSCI ACWI			9.0	8.9	26.6	12.4	8.4	9.7	8.8	10.5	Jul-09
Total Private Equity	21,822,467	4.1									
Total Cash	11,383,064	2.1									

\*One or more accounts have been excluded from the composite for the purposes of performance calculations and market value.



Trailing Performance													
	Market Value (\$)	% of Portfolio	% of Sector	QTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)	Inceptio n (%)	Inceptio n Date	
Total Fund Aggregate	537,378,221	100.0		5.1	5.9	17.6	8.8	7.0	8.0	8.3	8.4	Oct-90	
Total Fund Aggregate (Net of Fees)				5.0	5.8	17.4	8.6	6.8	7.8	8.0			
Policy Benchmark				5.3	6.1	18.0	9.3	7.1	7.7	<i>8.3</i>	8.5	Oct-90	
60% MSCI ACWI / 40% Barclays Aggregate				5.4	6.4	19.4	9.2	6.4	7.0	7.0	7.5	Oct-90	
Total Domestic Equity	167,608,241	31.2	31.2	8.6	9.9	30.5	13.4	11.1	14.1	13.7	10.5	Oct-90	
Russell 3000				9.1	10.4	31.0	14.6	11.2	14.4	13.4	10.8	Oct-90	
Northern Trust Russell 1000 Index	142,251,232	26.5	84.9	9.0	10.6	31.4	15.0	11.5	14.6	13.6	9.5	Jul-06	
Northern Trust Russell 1000 Index (Net of Fees)				9.0	10.6	31.4	15.0	11.4	14.6	13.5	9.5		
Russell 1000				9.0	10.6	31.4	15.0	11.5	14.6	13.5	9.5	Jul-06	
eV US Large Cap Core Equity Gross Median				8.2	10.1	29.5	14.4	11.0	14.4	13.3	9.6	Jul-06	
eV US Large Cap Core Equity Gross Rank				34	35	31	40	34	43	39	54	Jul-06	
Loomis Sayles Small Cap Value	17,188,345	3.2	10.3	5.7	5.7	25.3	5.6	7.8	11.3	11.9	11.0	Apr-97	
Loomis Sayles Small Cap Value (Net of Fees)				5.5	5.4	24.4	4.8	7.1	10.5	11.2			
Russell 2000 Value				8.5	7.9	22.4	4.8	7.0	10.1	10.6	9.2	Apr-97	



	Market Value (\$)	% of Portfolio	% of Sector	QTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)	Inceptio n (%)	Inceptio n Date
Russell 2000				9.9	7.3	25.5	8.6	8.2	11.6	11.8	8.6	Apr-97
eV US Small Cap Value Equity Gross Median				7.9	7.6	24.4	5.6	7.5	11.4	12.1	11.3	Apr-97
eV US Small Cap Value Equity Gross Rank				87	79	43	50	44	53	55	56	Apr-97
Northern Trust S&P 400 MidCap Index	8,168,664	1.5	4.9	7.1	7.0	26.2	9.3	9.0	12.3	12.7	8.4	Jun-07
Northern Trust S&P 400 MidCap Index (Net of Fees)				7.1	7.0	26.2	9.2	9.0	12.3	12.7		
S&P 400 MidCap				7.1	7.0	26.2	9.3	9.0	12.3	12.7	8.3	Jun-07
eV US Mid Cap Equity Gross Median				<i>7.3</i>	7.6	30.8	12.5	9.9	13.4	13.4	8.8	Jun-07
eV US Mid Cap Equity Gross Rank				53	62	79	72	63	72	67	61	Jun-07
Total International Developed Market Equity	70,255,120	13.1	13.1	8.4	7.6	24.8	11.9	7.1	6.8	6.4	8.3	Oct-95
MSCI EAFE				8.2	7.0	22.0	9.6	5.7	6.3	5.5	5.0	Oct-95
Northern Trust MSCI EAFE Index	30,556,786	5.7	43.5	8.1	7.0	22.3	9.9	6.0			5.2	Dec-14
Northern Trust MSCI EAFE Index (Net of Fees)				8.0	7.0	22.2	9.8	5.9			5.1	
MSCI EAFE				8.2	7.0	22.0	9.6	5.7	6.3	5.5	4.8	Dec-14
eV EAFE Core Equity Gross Median				9.2	7.9	23.4	10.1	7.0	7.8	7.4	6.4	Dec-14
eV EAFE Core Equity Gross Rank				75	66	61	55	68			74	Dec-14



	Market Value (\$)	% of Portfolio	% of Sector	QTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)	Inceptio n (%)	Inceptio n Date
WCM Focused Growth International	21,624,994	4.0	30.8	10.0	9.7	36.7					14.2	Aug-17
WCM Focused Growth International (Net of Fees)				9.8	9.3	35.7				-	13.2	
MSCI ACWI ex USA				8.9	7.0	21.5	9.9	5.5	5.4	5.0	4.8	Aug-17
eV EAFE Core Equity Gross Median				9.2	7.9	23.4	10.1	7.0	7.8	7.4	5.0	Aug-17
eV EAFE Core Equity Gross Rank				38	29	1					1	Aug-17
Hexavest International Equity	18,073,340	3.4	25.7	7.3	6.3	17.0					3.1	Aug-17
Hexavest International Equity (Net of Fees)				7.1	6.0	16.4					2.6	
MSCI EAFE				8.2	7.0	22.0	9.6	5.7	6.3	5.5	4.9	Aug-17
eV EAFE Core Equity Gross Median				9.2	7.9	23.4	10.1	7.0	7.8	7.4	5.0	Aug-17
eV EAFE Core Equity Gross Rank				90	77	95					78	Aug-17
Total International Emerging Market Equity	36,370,136	6.8	6.8	8.5	2.2	14.4	10.6	5.9	3.4		4.0	Feb-12
MSCI Emerging Markets				11.8	7.1	18.4	11.6	5.6	3.3	3.7	3.7	Feb-12
Dimensional Emerging Markets Value (Net of Fees)	22,662,840	4.2	62.3	9.7	2.0	9.6	8.9	4.7	2.1		2.5	Feb-12
MSCI Emerging Markets				11.8	7.1	18.4	11.6	5.6	3.3	3.7	3.7	Feb-12
eV Emg Mkts Equity Net Median				11.4	7.0	19.3	10.7	5.5	3.8	4.4	4.4	Feb-12
eV Emg Mkts Equity Net Rank				75	93	96	77	66	89		96	Feb-12



	Market Value (\$)	% of Portfolio	% of Sector	QTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)	Inceptio n (%)	Inceptio n Date
GQG Partners Emerging Markets Equity	13,707,296	2.6	37.7	6.5	2.4	23.1				-	9.2	Jul-17
GQG Partners Emerging Markets Equity (Net of Fees)				6.4	2.2	22.5				-	8.6	
MSCI Emerging Markets				11.8	7.1	18.4	11.6	5.6	3.3	3.7	6.6	Jul-17
eV Emg Mkts Equity Gross Median				11.5	7.1	19.8	11.7	6.5	4.7	5.3	6.6	Jul-17
eV Emg Mkts Equity Gross Rank				94	92	33					21	Jul-17
Total Investment Grade Bonds	91,799,244	17.1	17.1	0.5	2.2	7.6	3.6	2.8	2.6	3.8	5.9	Oct-90
BBgBarc US Aggregate TR				0.2	2.5	8.7	4.0	3.0	2.7	3.7	5.9	Oct-90
BBgBarc US Universal TR				0.5	2.6	9.3	4.3	3.4	3.0	4.1	6.2	Oct-90
Northern Trust Barclays Aggregate Index	44,193,654	8.2	48.1	0.2	2.4	8.7	4.0	3.0	2.7	3.7	4.8	Jul-98
Northern Trust Barclays Aggregate Index (Net of Fees)				0.1	2.4	8.7	4.0	3.0	2.6	3.7		
BBgBarc US Aggregate TR				0.2	2.5	8.7	4.0	3.0	2.7	3.7	4.8	Jul-98
eV US Core Fixed Inc Gross Median				0.2	2.6	9.2	4.4	3.4	3.1	4.3	5.3	Jul-98
eV US Core Fixed Inc Gross Rank				62	72	78	85	91	91	91	94	Jul-98



	Market Value (\$)	% of Portfolio		QTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)	Inceptio n (%)	Inceptio n Date
Northern Trust 1-5 Year Credit Bond	47,605,590	8.9	51.9	0.8	2.0	6.5	3.2	2.7	2.3		2.3	Feb-13
Northern Trust 1-5 Year Credit Bond (Net of Fees)				0.8	1.9	6.4	3.1	2.6			2.3	
BBgBarc US Credit 1-5 Yr TR				0.8	2.0	6.6	3.3	2.7	2.4	3.1	2.4	Feb-13
eV US Short Duration Fixed Inc Gross Median				0.6	1.5	4.6	2.6	2.1	1.8	2.1	1.8	Feb-13
eV US Short Duration Fixed Inc Gross Rank				11	4	5	11	12	13		12	Feb-13
Total TIPS	21,495,412	4.0	4.0	1.0	1.6	6.9	2.8	2.4			1.8	Nov-13
BBgBarc US TIPS TR				0.8	2.1	8.4	3.3	2.6	1.1	3.4	2.3	Nov-13
BBgBarc US TIPS 1-10 Yr TR				1.0	1.6	6.9	2.8	2.4	1.0	2.6	1.8	Nov-13
IR&M 1-10 Year Index	21,495,412	4.0	100.0	1.0	1.6	6.9	2.8	2.4			1.8	Nov-13
IR&M 1-10 Year Index (Net of Fees)				1.0	1.6	6.9	2.7	2.3			1.7	
BBgBarc US TIPS 1-10 Yr TR				1.0	1.6	6.9	2.8	2.4	1.0	2.6	1.8	Nov-13
eV US TIPS / Inflation Fixed Inc Gross Median				0.8	2.2	8.5	3.4	2.7	1.2	3.4	2.4	Nov-13
eV US TIPS / Inflation Fixed Inc Gross Rank				42	85	80	94	85		-	91	Nov-13



#### Total Fund Aggregate | As of December 31, 2019

	Market Value (\$)	% of Portfolio	% of Sector	QTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)	Inceptio n (%)	Inceptio n Date
Total High Yield Bonds*	21,671,018	4.0	4.0	2.2	4.4	13.7	6.2	6.0	5.8	7.2	8.6	Jul-09
BBgBarc US High Yield TR				2.6	4.0	14.3	6.4	6.1	5.8	7.6	<i>9.2</i>	Jul-09
Sky Harbor Broad High Yield Market	10,397,393	1.9	48.0	2.2	4.4	13.7	6.2	6.0	5.8		5.9	Sep-12
Sky Harbor Broad High Yield Market (Net of Fees)				2.2	4.2	13.4	5.9	5.6	5.3		5.5	
BBgBarc US High Yield TR				2.6	4.0	14.3	6.4	6.1	5.8	7.6	6.2	Sep-12
eV US High Yield Fixed Inc Gross Median				2.6	4.0	14.3	6.4	6.1	5.8	7.7	6.2	Sep-12
eV US High Yield Fixed Inc Gross Rank				69	39	60	65	53	52		68	Sep-12
Summit Partners Credit Fund II, L.P.	7,466,605	1.4	34.5									
Summit Partners Credit Fund III, L.P.	3,807,020	0.7	17.6									
Total Bank Loans	11,384,789	2.1	2.1	1.8	3.3	9.2	4.3	4.3	4.5		5.0	Apr-12
Credit Suisse Leveraged Loans				1.7	2.6	8.2	4.5	4.5	4.4	5.2	4.7	Apr-12
Beach Point Leveraged Loan	11,384,789	2.1	100.0	1.8	3.3	9.2	4.3	4.3	4.5		5.0	Apr-12
Beach Point Leveraged Loan (Net of Fees)				1.6	3.0	8.6	3.6	3.6	3.8		4.4	
Credit Suisse Leveraged Loans				1.7	2.6	<i>8.2</i>	4.5	4.5	4.4	<i>5.2</i>	4.7	Apr-12
eV US Float-Rate Bank Loan Fixed Inc Gross Median				1.8	2.9	8.7	4.5	4.7	4.5	5.4	4.8	Apr-12
eV US Float-Rate Bank Loan Fixed Inc Gross Rank				49	31	34	75	83	53		30	Apr-12
Note: Total High Vield Bonds performance evolutes the performance	from Summit Crodit Fund II	and Summit Cra	dit Eurod III									

Note: Total High Yield Bonds performance excludes the performance from Summit Credit Fund II and Summit Credit Fund III.

# MEKETA

## City of Ann Arbor Employees' Retirement System

	Market Value (\$)	% of Portfolio	% of Sector	QTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)	Inceptio n (%)	Inceptio n Date
Total Emerging Market Debt (Net of Fees)	13,171,718	2.5	2.5	5.2	3.8	13.1	5.6	1.7	-2.0	-	-0.2	Jun-12
JP Morgan GBI EM Global Diversified TR USD				5.2	4.4	13.5	7.0	2.8	-0.2	2.7	1.7	Jun-12
Stone Harbor Emerging Markets Local Currency Debt (Net of Fees)	13,171,718	2.5	100.0	5.2	3.8	13.1	5.6	1.7	-2.0	-	-0.2	Jun-12
JP Morgan GBI EM Global Diversified TR USD				5.2	4.4	13.5	7.0	2.8	-0.2	2.7	1.7	Jun-12
eV Emg Mkts Fixed Inc - Local Currency Net Median				5.4	4.1	13.4	6.5	2.3	-0.6	2.0	1.2	Jun-12
eV Emg Mkts Fixed Inc - Local Currency Net Rank				68	68	57	74	76	94	-	98	Jun-12
Total Real Estate	44,450,746	8.3	8.3	1.3	3.7	6.9	8.2	9.7	11.6	11.9	8.1	Jul-03
NCREIF ODCE Equal Weighted				1.5	2.9	6.1	7.4	9.3	10.3	11.5	7.9	Jul-03
A.E.W Core Property Trust (Net of Fees)	29,137,057	5.4	65.5	0.9	2.4	5.2	6.4	7.8			8.6	Jul-13
NCREIF ODCE (net)				1.3	2.4	4.4	6.1	8.0	9.2	10.4	8.9	Jul-13
DRA Growth and Income Fund VIII	5,671,861	1.1	12.8									
DRA Growth and Income Fund IX	7,399,706	1.4	16.6									
INVESCO Mortgage Recovery Loans	558,510	0.1	1.3									
Carlyle Realty Partners VIII, L.P. Note:The market value for AEW Core Property is preliminary.	1,683,612	0.3	3.8									



	Market Value (\$)	% of Portfolio	% of Sector	QTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)	Inceptio n (%)	Inceptio n Date
Total Natural Resources (Net of Fees)	8,697,687	1.6	1.6	9.9	15.9	39.0					6.8	Jul-17
FTSE Gold Mines PR USD				8.6	13.3	41.2	11.0	11.4	-5.3	-4.6	11.9	Jul-17
S&P Global Natural Resources Index TR USD				9.5	2.9	17.2	7.9	4.8	2.1	1.6	8.7	Jul-17
First Eagle Gold Fund (Net of Fees)	8,697,687	1.6	100.0	9.9	15.9	39.0					6.8	Jul-17
FTSE Gold Mines PR USD				8.6	13.3	41.2	11.0	11.4	-5.3	-4.6	11.9	Jul-17
S&P Global Natural Resources Index TR USD				9.5	2.9	17.2	7.9	4.8	2.1	1.6	8.7	Jul-17
eV Global Natural Resources Equity Net Median										-		Jul-17
eV Global Natural Resources Equity Net Rank										-		Jul-17
Total Hedge Funds	17,268,580	3.2	3.2	0.1	-2.0	-1.6	-1.0	-1.4	0.8	1.0	2.0	Jul-09
HFRI Fund Weighted Composite Index				3.5	2.9	10.4	4.5	3.5	4.2	4.0	4.7	Jul-09
MSCI ACWI				9.0	8.9	26.6	12.4	8.4	9.7	8.8	10.5	Jul-09
36 South Kohinoor Series Three (Net												
of Fees)	6,757,170	1.3	39.1	-3.0	-2.3	-9.9	-6.5				-6.5	Feb-15
HFRI Macro (Total) Index				-0.5	1.2	6.2	1.3	0.8	1.3	1.2	0.3	Feb-15
Tse Capital Offshore Fund, Ltd. (Net of Fees)	6,833,116	1.3	39.6	3.5	-1.4	6.4	2.0			-	2.4	Feb-15
HFRI Macro (Total) Index				-0.5	1.2	6.2	1.3	0.8	1.3	1.2	0.3	Feb-15



#### Total Fund Aggregate | As of December 31, 2019

	Market Value (\$)	% of Portfolio		QTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)	Inceptio n (%)	Inceptio n Date
Sculptor Credit Opportunities (Net of Fees)	3,678,294	0.7	21.3	0.0	-2.7	1.1	5.7				6.1	Jun-15
BBgBarc US High Yield TR				2.6	4.0	14.3	6.4	6.1	5.8	7.6	5.8	Jun-15
Total Private Equity	21,822,467	4.1	4.1									
Ironsides Co-Investment Fund III, L.P.	5,718,834	1.1	26.2									
Ironsides Partnership Fund III, L.P.	5,136,376	1.0	23.5									
Strategic Investors Fund VIII L.P.	7,668,649	1.4	35.1									
Ironsides Direct Investment Fund V, L.P.	3,207,848	0.6	14.7									
Arboretum Ventures V, L.P.	90,760	0.0	0.4									
Total Cash	11,383,064	2.1	2.1									
Northern Trust Cash Account	11,383,064	2.1	100.0									

\*One or more accounts have been excluded from the composite for the purposes of performance calculations and market value.



	Calendar Y	ear Per	forman	ce						
	2019 (%)	2018 (%)	2017 (%)	2016 (%)	2015 (%)	2014 (%)	2013 (%)	2012 (%)	2011 (%)	2010 (%)
Total Fund Aggregate	17.6	-3.7	13.6	8.7	0.1	6.4	15.0	11.6	0.6	15.1
Total Fund Aggregate (Net of Fees)	17.4	-3.8	13.4	8.5	-0.1	6.1	14.7	11.4	0.3	14.8
Policy Benchmark	18.0	-3.6	14.9	8.6	-0.8	5.5	12.9	12.9	1.9	15.6
60% MSCI ACWI / 40% Barclays Aggregate	19.4	-5.5	15.4	5.9	-1.0	5.0	12.3	11.5	-1.1	10.8
Total Domestic Equity	30.5	-6.1	19.1	15.7	0.2	11.7	33.5	16.8	0.5	21.7
Russell 3000	31.0	-5.2	21.1	12.7	0.5	12.6	33.6	16.4	1.0	16.9
Northern Trust Russell 1000 Index	31.4	-4.8	21.7	12.1	0.9	13.2	33.1	16.4	1.6	16.3
Northern Trust Russell 1000 Index (Net of Fees)	31.4	-4.9	21.7	12.1	0.9	13.2	33.1	16.4	1.5	16.3
Russell 1000	31.4	-4.8	21.7	12.1	0.9	13.2	33.1	16.4	1.5	16.1
Loomis Sayles Small Cap Value	25.3	-15.2	10.7	27.0	-2.4	6.4	36.1	17.0	-0.1	25.1
Loomis Sayles Small Cap Value (Net of Fees)	24.4	-15.8	10.0	26.1	-3.0	5.6	35.1	16.2	-0.8	24.3
Russell 2000 Value	22.4	-12.9	7.8	31.7	-7.5	4.2	34.5	18.0	-5.5	24.5
Russell 2000	25.5	-11.0	14.6	21.3	-4.4	4.9	38.8	16.3	-4.2	26.9
Northern Trust S&P 400 MidCap Index	26.2	-11.1	16.2	20.7	-2.2	9.8	33.5	17.9	-1.7	26.7
Northern Trust S&P 400 MidCap Index (Net of Fees)	26.2	-11.1	16.2	20.7	-2.2	9.7	33.5	17.9	-1.7	26.7
S&P 400 MidCap	26.2	-11.1	16.2	20.7	-2.2	9.8	33.5	17.9	-1.7	26.6



	2019 (%)	2018 (%)	2017 (%)	2016 (%)	2015 (%)	2014 (%)	2013 (%)	2012 (%)	2011 (%)	2010 (%)
Total International Developed Market Equity	24.8	-11.0	26.0	1.3	-0.6	-5.7	19.5	16.4	-12.4	15.5
MSCI EAFE	22.0	-13.8	25.0	1.0	-0.8	-4.9	22.8	17.3	-12.1	7.8
Northern Trust MSCI EAFE Index	22.3	-13.2	25.1	1.4	-0.5					
Northern Trust MSCI EAFE Index (Net of Fees)	22.2	-13.3	25.0	1.3	-0.6					
MSCI EAFE	22.0	-13.8	25.0	1.0	-0.8	-4.9	22.8	17.3	-12.1	7.8
WCM Focused Growth International	36.7	-6.5								
WCM Focused Growth International (Net of Fees)	35.7	-7.4								
MSCI ACWI ex USA	21.5	-14.2	27.2	4.5	-5.7	-3.9	15.3	16.8	-13.7	11.2
Hexavest International Equity	17.0	-10.9								
Hexavest International Equity (Net of Fees)	16.4	-11.3								
MSCI EAFE	22.0	-13.8	25.0	1.0	-0.8	-4.9	22.8	17.3	-12.1	7.8
Total International Emerging Market Equity	14.4	-12.5	35.3	15.7	-15.1	-0.3	-4.6	8.3		
MSCI Emerging Markets	18.4	-14.6	37.3	11.2	-14.9	-2.2	-2.6	18.2	-18.4	18.9
Dimensional Emerging Markets Value (Net of Fees)	9.6	-11.9	33.8	19.8	-18.8	-4.4	-3.8			
MSCI Emerging Markets	18.4	-14.6	37.3	11.2	-14.9	-2.2	-2.6	18.2	-18.4	18.9
GQG Partners Emerging Markets Equity	23.1	-13.6								
GQG Partners Emerging Markets Equity (Net of Fees)	22.5	-14.1								
MSCI Emerging Markets	18.4	-14.6	37.3	11.2	-14.9	-2.2	-2.6	18.2	-18.4	18.9



	2019 (%)	2018 (%)	2017 (%)	2016 (%)	2015 (%)	2014 (%)	2013 (%)	2012 (%)	2011 (%)	2010 (%)
Total Investment Grade Bonds	7.6	0.3	2.9	2.4	0.8	5.5	-1.0	6.1	6.1	7.8
BBgBarc US Aggregate TR	8.7	0.0	3.5	2.6	0.5	6.0	-2.0	4.2	7.8	6.5
BBgBarc US Universal TR	9.3	-0.3	4.1	3.9	0.4	5.6	-1.3	5.5	7.4	7.2
Northern Trust Barclays Aggregate Index	8.7	0.0	3.5	2.6	0.6	6.1	-2.3	4.3	7.8	6.6
Northern Trust Barclays Aggregate Index (Net of Fees)	8.7	0.0	3.4	2.5	0.5	6.0	-2.3	4.2	7.8	6.6
BBgBarc US Aggregate TR	8.7	0.0	3.5	2.6	0.5	6.0	-2.0	4.2	7.8	6.5
Northern Trust 1-5 Year Credit Bond	6.5	1.1	2.2	2.4	1.3	1.8	1.0			
Northern Trust 1-5 Year Credit Bond (Net of Fees)	6.4	1.0	2.1	2.3	1.2	1.8				
BBgBarc US Credit 1-5 Yr TR	6.6	1.1	2.3	2.6	1.1	1.9	1.2	5.5	3.0	5.4
Total TIPS	6.9	-0.3	1.9	4.1	-0.4	0.9				
BBgBarc US TIPS TR	8.4	-1.3	3.0	4.7	-1.4	3.6	-8.6	7.0	13.6	6.3
BBgBarc US TIPS 1-10 Yr TR	6.9	-0.3	1.9	4.0	-0.5	0.9	-5.6	5.0	8.9	5.2
IR&M 1-10 Year Index	6.9	-0.3	1.9	4.1	-0.4	0.9				
IR&M 1-10 Year Index (Net of Fees)	6.9	-0.3	1.8	3.9	-0.5	0.8				
BBgBarc US TIPS 1-10 Yr TR	6.9	-0.3	1.9	4.0	-0.5	0.9	-5.6	5.0	8.9	5.2



#### Total Fund Aggregate | As of December 31, 2019

	2019 (%)	2018 (%)	2017 (%)	2016 (%)	2015 (%)	2014 (%)	2013 (%)	2012 (%)	2011 (%)	2010 (%)
Total High Yield Bonds*	13.7	-2.4	7.9	15.7	-3.4	1.4	9.3	13.5	3.1	15.0
BBgBarc US High Yield TR	14.3	-2.1	7.5	17.1	-4.5	<i>2</i> .5	7.4	15.8	5.0	15.1
Sky Harbor Broad High Yield Market	13.7	-2.4	7.9	15.7	-3.4	1.4	9.3			
Sky Harbor Broad High Yield Market (Net of Fees)	13.4	-2.7	7.6	15.1	-3.9	0.8	8.7			
BBgBarc US High Yield TR	14.3	-2.1	7.5	17.1	-4.5	2.5	7.4	15.8	5.0	15.1
Summit Partners Credit Fund II, L.P.										
Summit Partners Credit Fund III, L.P.										
Total Bank Loans	9.2	0.5	3.3	5.9	2.7	2.7	7.1			
Credit Suisse Leveraged Loans	8.2	1.1	4.2	9.9	-0.4	2.1	6.2	9.4	1.8	10.0
Beach Point Leveraged Loan	9.2	0.5	3.3	5.9	2.7	2.7	7.1			
Beach Point Leveraged Loan (Net of Fees)	8.6	-0.1	2.5	5.2	2.1	2.0	6.4			
Credit Suisse Leveraged Loans	8.2	1.1	4.2	9.9	-0.4	2.1	6.2	9.4	1.8	10.0
Total Emerging Market Debt (Net of Fees)	13.1	-9.8	15.4	9.0	-15.2	-8.5	-12.6			
JP Morgan GBI EM Global Diversified TR USD	13.5	-6.2	15.2	9.9	-14.9	-5.7	-9.0	16.8	-1.8	15.1
Stone Harbor Emerging Markets Local Currency Debt (Net of Fees)	13.1	-9.8	15.4	9.0	-15.2	-8.5	-12.6			
JP Morgan GBI EM Global Diversified TR USD	13.5	-6.2	<i>15.2</i>	9.9	-14.9	-5.7	-9.0	16.8	-1.8	15.1

Note: Total High Yield Bonds performance excludes the performance from Summit Credit Fund II and Summit Credit Fund III.



	2019 (%)	2018 (%)	2017 (%)	2016 (%)	2015 (%)	2014 (%)	2013 (%)	2012 (%)	2011 (%)	2010 (%)
Total Real Estate	6.9	9.5	8.3	5.4	18.9	22.0	11.5	16.7	7.7	13.6
NCREIF ODCE Equal Weighted	6.1	8.3	7.8	9.3	15.2	12.4	13.4	11.0	16.0	16.1
A.E.W Core Property Trust (Net of Fees)	5.2	6.8	7.1	7.6	12.4	10.4				
NCREIF ODCE (net)	4.4	7.4	6.7	7.8	14.0	11.5	12.9	9.8	15.0	15.3
DRA Growth and Income Fund VIII										
DRA Growth and Income Fund IX										
INVESCO Mortgage Recovery Loans										
Carlyle Realty Partners VIII, L.P.										
Total Natural Resources (Net of Fees)	39.0	-15.7								
FTSE Gold Mines PR USD	41.2	-11.3	9.1	59.6	-21.4	-15.2	-53.2	-15.4	-15.9	29.0
S&P Global Natural Resources Index TR USD	17.2	-12.6	22.7	32.3	-24.0	-9.7	1.5	7.2	-14.9	11.0
First Eagle Gold Fund (Net of Fees)	39.0	-15.7								
FTSE Gold Mines PR USD	41.2	-11.3	9.1	59.6	-21.4	-15.2	-53.2	-15.4	-15.9	29.0
S&P Global Natural Resources Index TR USD	17.2	-12.6	22.7	32.3	-24.0	-9.7	1.5	7.2	-14.9	11.0



#### Total Fund Aggregate | As of December 31, 2019

	2019 (%)	2018 (%)	2017 (%)	2016 (%)	2015 (%)	2014 (%)	2013 (%)	2012 (%)	2011 (%)	2010 (%)
Total Hedge Funds	-1.6	2.5	-3.8	1.6	-5.1	5.0	7.4	1.6	-2.1	5.8
HFRI Fund Weighted Composite Index	10.4	-4.7	8.6	5.4	-1.1	3.0	9.1	6.4	-5.3	10.2
MSCI ACWI	26.6	-9.4	24.0	7.9	-2.4	4.2	22.8	16.1	-7.3	12.7
36 South Kohinoor Series Three (Net of Fees)	-9.9	-0.9	-8.6	-6.3						
HFRI Macro (Total) Index	6.2	-4.1	2.2	1.0	-1.3	5.6	-0.4	-0.1	-4.2	8.1
Tse Capital Offshore Fund, Ltd. (Net of Fees)	6.4	4.4	-4.3	5.3						
HFRI Macro (Total) Index	6.2	-4.1	2.2	1.0	-1.3	5.6	-0.4	-0.1	-4.2	8.1
Sculptor Credit Opportunities (Net of Fees)	1.1	6.5	9.7	19.3						
BBgBarc US High Yield TR	14.3	-2.1	7.5	17.1	-4.5	2.5	7.4	15.8	5.0	15.1
Total Private Equity										
Ironsides Co-Investment Fund III, L.P.										
Ironsides Partnership Fund III, L.P.										
Strategic Investors Fund VIII L.P.										
Ironsides Direct Investment Fund V, L.P.										

Arboretum Ventures V, L.P.



	Fiscal Ye	ar Perfo	ormance	•						
	Fiscal 2019 (%)	Fiscal 2018 (%)	Fiscal 2017 (%)	Fiscal 2016 (%)	Fiscal 2015 (%)	Fiscal 2014 (%)	Fiscal 2013 (%)	Fiscal 2012 (%)	Fiscal 2011 (%)	Fiscal 2010 (%)
Total Fund Aggregate	6.5	7.1	12.0	0.9	3.8	15.2	11.7	0.0	23.3	13.2
Total Fund Aggregate (Net of Fees)	6.4	6.9	11.8	0.7	3.6	14.9	11.3	-0.2	23.1	12.9
Policy Benchmark	6.7	8.1	11.2	1.2	2.1	<i>15.2</i>	10.1	2.4	24.4	13.6
60% MSCI ACWI / 40% Barclays Aggregate	7.0	6.2	10.8	0.3	1.3	15.3	9.4	-0.5	19.3	11.3
Total Domestic Equity	8.6	14.2	18.4	2.2	7.2	25.2	22.5	1.8	36.1	18.9
Russell 3000	9.0	14.8	18.5	2.1	7.3	25.2	21.5	3.8	32.4	15.7
Northern Trust Russell 1000 Index	10.0	14.5	18.0	3.0	7.4	25.3	21.2	4.3	32.1	15.8
Northern Trust Russell 1000 Index (Net of Fees)	10.0	14.4	18.0	3.0	7.3	25.3	21.2	4.3	32.0	15.8
Russell 1000	10.0	14.5	18.0	2.9	7.4	25.4	21.2	4.4	31.9	<i>15.2</i>
Loomis Sayles Small Cap Value	-1.0	11.9	19.9	-0.5	5.7	24.8	25.8	-1.0	39.7	19.8
Loomis Sayles Small Cap Value (Net of Fees)	-1.7	11.1	19.0	-1.2	5.0	23.9	24.9	-1.7	38.9	19.0
Russell 2000 Value	-6.2	13.1	24.9	-2.6	0.8	22.5	24.8	-1.4	31.4	25.1
Russell 2000	-3.3	17.6	24.6	-6.7	6.5	23.6	24.2	-2.1	37.4	21.5
Northern Trust S&P 400 MidCap Index	1.4	13.5	18.5	1.4	6.4	25.2	25.2	-2.3	39.5	25.3
Northern Trust S&P 400 MidCap Index (Net of Fees)	1.3	13.4	18.5	1.3	6.4	25.2	25.2	-2.3	39.5	25.3
S&P 400 MidCap	1.4	13.5	18.6	1.3	6.4	25.2	25.2	-2.3	39.4	24.9



	Fiscal 2019 (%)	Fiscal 2018 (%)	Fiscal 2017 (%)	Fiscal 2016 (%)	Fiscal 2015 (%)	Fiscal 2014 (%)	Fiscal 2013 (%)	Fiscal 2012 (%)	Fiscal 2011 (%)	Fiscal 2010 (%)
Total International Developed Market Equity	4.5	7.7	23.3	-10.8	-0.6	16.5	15.7	-14.5	35.2	11.5
MSCI EAFE	1.1	6.8	20.3	-10.2	-4.2	23.6	18.6	-13.8	30.4	5.9
Northern Trust MSCI EAFE Index	1.4	7.3	20.7	-9.9						
Northern Trust MSCI EAFE Index (Net of Fees)	1.3	7.2	20.6	-9.9						
MSCI EAFE	1.1	6.8	20.3	-10.2	-4.2	23.6	18.6	-13.8	30.4	5.9
WCM Focused Growth International	13.1									
WCM Focused Growth International (Net of Fees)	12.2									
MSCI ACWI ex USA	1.3	7.3	20.5	-10.2	-5.3	21.8	13.6	-14.6	29.7	10.4
Hexavest International Equity	1.9									
Hexavest International Equity (Net of Fees)	1.4									
MSCI EAFE	1.1	6.8	20.3	-10.2	-4.2	23.6	18.6	-13.8	30.4	5.9
Total International Emerging Market Equity	4.8	7.5	25.9	-9.3	-6.6	12.6	3.2	-4.1		
MSCI Emerging Markets	1.2	8.2	23.7	-12.1	-5.1	14.3	2.9	-16.0	27.8	23.2
Dimensional Emerging Markets Value (Net of Fees)	2.0	5.7	27.6	-11.8	-9.1	15.5	2.1			
MSCI Emerging Markets	1.2	8.2	23.7	-12.1	-5.1	14.3	2.9	-16.0	27.8	23.2
GQG Partners Emerging Markets Equity	10.0	10.6								
GQG Partners Emerging Markets Equity (Net of Fees)	9.4	10.0								
MSCI Emerging Markets	1.2	8.2	<i>23</i> .7	-12.1	-5.1	14.3	2.9	-16.0	27.8	23.2



	Fiscal 2019 (%)	Fiscal 2018 (%)	Fiscal 2017 (%)	Fiscal 2016 (%)	Fiscal 2015 (%)	Fiscal 2014 (%)	Fiscal 2013 (%)	Fiscal 2012 (%)	Fiscal 2011 (%)	Fiscal 2010 (%)
Total Investment Grade Bonds	6.9	-0.3	0.0	4.9	1.7	5.5	0.4	6.1	6.7	11.2
BBgBarc US Aggregate TR	7.9	-0.4	-0.3	6.0	1.9	4.4	-0.7	7.5	3.9	9.5
BBgBarc US Universal TR	8.1	-0.3	0.9	5.8	1.6	5.2	0.2	7.4	4.8	10.6
Northern Trust Barclays Aggregate Index	7.9	-0.4	-0.4	6.0	1.9	4.3	-0.8	7.5	3.8	10.0
Northern Trust Barclays Aggregate Index (Net of Fees)	7.8	-0.5	-0.5	6.0	1.9	4.3	-0.9	7.5	3.8	10.0
BBgBarc US Aggregate TR	7.9	-0.4	-0.3	6.0	1.9	4.4	-0.7	7.5	3.9	9.5
Northern Trust 1-5 Year Credit Bond	6.0	0.0	1.1	3.1	1.3	3.3				
Northern Trust 1-5 Year Credit Bond (Net of Fees)	6.0	-0.1	1.1	3.1	1.2	3.2				
BBgBarc US Credit 1-5 Yr TR	6.1	0.1	1.3	3.1	1.3	3.4	2.1	3.3	4.8	9.1
Total TIPS	4.7	1.5	-0.3	3.4	-2.0					
BBgBarc US TIPS TR	4.8	2.1	-0.6	4.4	-1.7	4.4	-4.8	11.7	7.7	9.5
BBgBarc US TIPS 1-10 Yr TR	4.7	1.5	-0.3	3.3	-1.9	3.6	-3.1	6.3	7.5	8.5
IR&M 1-10 Year Index	4.8	1.5	-0.3	3.4	-2.0					
IR&M 1-10 Year Index (Net of Fees)	4.7	1.4	-0.4	3.3	-2.1					
BBgBarc US TIPS 1-10 Yr TR	4.7	1.5	-0.3	3.3	-1.9	3.6	-3.1	6.3	7.5	8.5



#### Total Fund Aggregate | As of December 31, 2019

	Fiscal 2019 (%)	Fiscal 2018 (%)	Fiscal 2017 (%)	Fiscal 2016 (%)	Fiscal 2015 (%)	Fiscal 2014 (%)	Fiscal 2013 (%)	Fiscal 2012 (%)	Fiscal 2011 (%)	Fiscal 2010 (%)
Total High Yield Bonds*	6.4	2.8	13.3	0.8	-1.4	12.4	8.8	5.2	14.7	24.7
BBgBarc US High Yield TR	7.5	2.6	12.7	1.6	-0.4	11.7	9.5	7.3	15.6	26.8
Sky Harbor Broad High Yield Market	6.4	2.8	13.3	0.8	-1.4	12.4				
Sky Harbor Broad High Yield Market (Net of Fees)	6.1	2.5	12.9	0.3	-1.9	11.8				
BBgBarc US High Yield TR	7.5	2.6	12.7	1.6	-0.4	11.7	9.5	7.3	15.6	26.8
Summit Partners Credit Fund II, L.P.										
Summit Partners Credit Fund III, L.P.										
Total Bank Loans	4.5	3.5	4.5	2.9	3.3	6.1	9.5			
Credit Suisse Leveraged Loans	4.1	4.7	7.5	0.9	2.2	6.1	7.6	3.3	9.7	17.7
Beach Point Leveraged Loan	4.5	3.5	4.5	2.9	3.3	6.1	9.5			
Beach Point Leveraged Loan (Net of Fees)	4.0	2.8	3.8	2.2	2.6	5.5	8.8			
Credit Suisse Leveraged Loans	4.1	4.7	7.5	0.9	2.2	6.1	7.6	3.3	9.7	17.7
Total Emerging Market Debt (Net of Fees)	6.9	-4.5	6.4	0.1	-16.9	1.1	-1.4			
JP Morgan GBI EM Global Diversified TR USD	9.0	-2.3	6.4	2.0	-15.4	3.9	1.3	-1.7	19.7	15.0
Stone Harbor Emerging Markets Local Currency Debt (Net of Fees)	6.9	-4.5	6.4	0.1	-16.9	1.1	-1.4			
JP Morgan GBI EM Global Diversified TR USD	9.0	-2.3	6.4	2.0	-15.4	3.9	1.3	-1.7	19.7	15.0

Note: Total High Yield Bonds performance excludes the performance from Summit Credit Fund II and Summit Credit Fund III.



	Fiscal 2019 (%)	Fiscal 2018 (%)	Fiscal 2017 (%)	Fiscal 2016 (%)	Fiscal 2015 (%)	Fiscal 2014 (%)	Fiscal 2013 (%)	Fiscal 2012 (%)	Fiscal 2011 (%)	Fiscal 2010 (%)
Total Real Estate	8.0	8.7	6.6	11.2	19.2	16.0	18.8	7.7	13.8	-8.7
NCREIF ODCE Equal Weighted	6.9	8.6	8.1	12.2	14.6	12.3	11.8	12.5	20.4	-7.7
A.E.W Core Property Trust (Net of Fees)	6.0	7.3	6.9	10.3	12.2	11.0				
NCREIF ODCE (net)	5.5	7.5	6.9	10.8	13.4	11.8	11.1	11.3	19.4	-6.8
DRA Growth and Income Fund VIII										
DRA Growth and Income Fund IX										
INVESCO Mortgage Recovery Loans										
Carlyle Realty Partners VIII, L.P.										
Total Natural Resources (Net of Fees)	9.2	-6.8								
FTSE Gold Mines PR USD	18.6	-1.4	-21.8	68.5	-31.0	10.2	-48.0	-21.9	4.4	31.2
S&P Global Natural Resources Index TR USD	-4.0	24.8	15.3	-8.9	-17.6	21.7	-2.6	-18.3	38.4	1.2
First Eagle Gold Fund (Net of Fees)	9.2	-6.8								
FTSE Gold Mines PR USD	18.6	-1.4	-21.8	68.5	-31.0	10.2	-48.0	-21.9	4.4	31.2
S&P Global Natural Resources Index TR USD	-4.0	24.8	15.3	-8.9	-17.6	21.7	-2.6	-18.3	38.4	1.2



	Fiscal 2019 (%)	Fiscal 2018 (%)	Fiscal 2017 (%)	Fiscal 2016 (%)	Fiscal 2015 (%)	Fiscal 2014 (%)	Fiscal 2013 (%)	Fiscal 2012 (%)	Fiscal 2011 (%)	Fiscal 2010 (%)
Total Hedge Funds	2.0	-1.9	0.5	-5.1	4.4	4.1	5.6	-1.2	5.8	10.1
HFRI Fund Weighted Composite Index	1.3	5.7	7.9	-2.4	2.3	9.1	7.9	-4.3	11.5	9.1
MSCI ACWI	5.7	10.7	18.8	- <i>3.7</i>	0.7	22.9	16.6	-6.5	30.1	11.8
36 South Kohinoor Series Three (Net of Fees)	-4.8	-8.7	-7.2	-6.2						
HFRI Macro (Total) Index	2.4	1.1	-2.4	1.8	4.1	1.5	-0.1	-2.8	6.8	1.8
Tse Capital Offshore Fund, Ltd. (Net of Fees)	8.7	-0.4	2.9	-5.0						
HFRI Macro (Total) Index	2.4	1.1	-2.4	1.8	4.1	1.5	-0.1	-2.8	6.8	1.8
Sculptor Credit Opportunities (Net of Fees)	3.7	11.8	18.6	-0.8						
BBgBarc US High Yield TR	7.5	2.6	12.7	1.6	-0.4	11.7	9.5	7.3	15.6	26.8
Total Private Equity										
Ironsides Co-Investment Fund III, L.P.										
Ironsides Partnership Fund III, L.P.										
Strategic Investors Fund VIII L.P.										
Ironsides Direct Investment Fund V, L.P. Arboretum Ventures V, L.P.										

**Retirement System Detail** 



#### Global Equity | As of December 31, 2019

Asset Allocation on December 31, 2019			
	Actual	Actual	
Dimensional Emerging Markets Value	\$22,662,840	8.3%	
GQG Partners Emerging Markets Equity	\$13,707,296	5.0%	
Hexavest International Equity	\$18,073,340	6.6%	
Loomis Sayles Small Cap Value	\$17,188,345	6.3%	
Northern Trust MSCI EAFE Index	\$30,556,786	11.1%	
Northern Trust Russell 1000 Index	\$142,251,232	51.9%	
Northern Trust S&P 400 MidCap Index	\$8,168,664	3.0%	
WCM Focused Growth International	\$21,624,994	7.9%	
Total	\$274,233,497	100.0%	

# MEKETA

## City of Ann Arbor Employees' Retirement System

#### Global Equity | As of December 31, 2019

Global Equity Characteristics			
	Portfolio	Index	Portfolio
	Q4-19	Q4-19	Q3-19
Market Value			
Market Value (\$M)	274.2		257.5
Number Of Holdings	4565	3017	4685
Characteristics			
Weighted Avg. Market Cap. (\$B)	158.5	176.6	135.3
Median Market Cap (\$B)	4.0	10.0	3.7
P/E Ratio	19.4	19.4	18.1
Yield	2.2	2.4	2.3
EPS Growth - 5 Yrs.	11.3	11.2	11.1
Price to Book	3.1	3.1	3.0
Beta (holdings; domestic)	1.0	1.0	1.0

#### Sector Allocation (%) vs MSCI ACWI



Top 10 Holdings		
APPLE	2.3%	
MICROSOFT	2.1%	
AMAZON.COM	1.4%	
FACEBOOK CLASS A	0.9%	
BERKSHIRE HATHAWAY 'B'	0.8%	
JP MORGAN CHASE & CO.	0.8%	
ALPHABET 'C'	0.7%	
ALPHABET A	0.7%	
JOHNSON & JOHNSON	0.7%	
ACCENTURE CLASS A	0.6%	
Total	11.0%	

MEKETA INVESTMENT GROUP



#### Global Equity | As of December 31, 2019

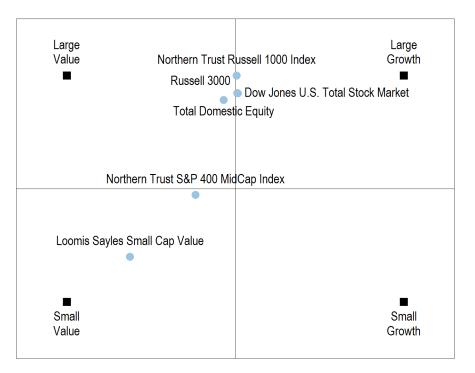
Global Equity Region Allocation			
	vs MSCI ACWI		
Region	% of Total	% of Bench	% Diff
North America ex U.S.	0.9%	3.0%	-2.1%
United States	64.1%	55.7%	8.4%
Europe Ex U.K.	10.8%	13.7%	-2.8%
United Kingdom	3.6%	4.8%	-1.3%
Pacific Basin Ex Japan	4.3%	3.5%	0.8%
Japan	4.7%	7.2%	-2.5%
Emerging Markets	11.5%	11.6%	-0.1%
Other	0.2%	0.6%	-0.4%
Total	100.0%	100.0%	0.0%



#### Total Domestic Equity | As of December 31, 2019

Asset Allocation on December 31, 2019			
	Actual	Actual	
Loomis Sayles Small Cap Value	\$17,188,345	10.3%	
Northern Trust Russell 1000 Index	\$142,251,232	84.9%	
Northern Trust S&P 400 MidCap Index	\$8,168,664	4.9%	
Total	\$167,608,241	100.0%	





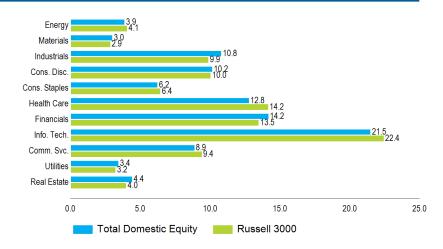
# MEKETA

## City of Ann Arbor Employees' Retirement System

#### Total Domestic Equity | As of December 31, 2019

Total Domestic Equity Characteristics				
	Portfolio	Index	Portfolio	
	Q4-19	Q4-19	Q3-19	
Market Value				
Market Value (\$M)	167.6		159.1	
Number Of Holdings	1224	2992	1224	
Characteristics				
Weighted Avg. Market Cap. (\$B)	213.2	230.5	179.7	
Median Market Cap (\$B)	6.7	1.8	6.5	
P/E Ratio	22.6	22.8	20.6	
Yield	1.8	1.8	1.9	
EPS Growth - 5 Yrs.	13.2	13.1	13.0	
Price to Book	3.5	3.6	3.3	
Beta (holdings; domestic)	1.0	1.0	1.0	

#### Sector Allocation (%) vs Russell 3000



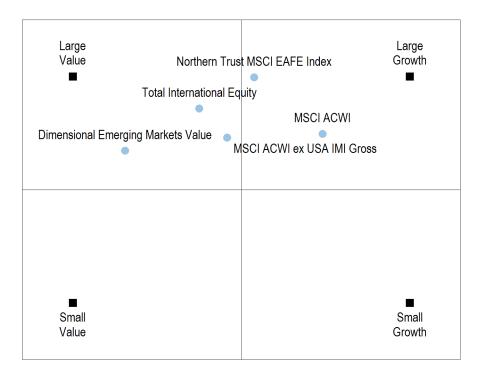
Top 10 Holdings		
APPLE	3.7%	
MICROSOFT	3.4%	
AMAZON.COM	2.2%	
FACEBOOK CLASS A	1.4%	
BERKSHIRE HATHAWAY 'B'	1.3%	
JP MORGAN CHASE & CO.	1.3%	
ALPHABET 'C'	1.2%	
ALPHABET A	1.2%	
JOHNSON & JOHNSON	1.1%	
VISA 'A'	0.9%	
Total	17.6%	



#### Total International Equity | As of December 31, 2019

Asset Allocation on December 31, 2019			
	Actual	Actual	
Dimensional Emerging Markets Value	\$22,662,840	21.3%	
GQG Partners Emerging Markets Equity	\$13,707,296	12.9%	
Hexavest International Equity	\$18,073,340	17.0%	
Northern Trust MSCI EAFE Index	\$30,556,786	28.7%	
WCM Focused Growth International	\$21,624,994	20.3%	
Total	\$106,625,256	100.0%	

#### Total International Equity Style Map 3 Years Ending December 31, 2019



# MEKETA

## City of Ann Arbor Employees' Retirement System

#### Total International Equity | As of December 31, 2019

Total International Equity Characteristics				
	Portfolio	Index	Portfolio	
	Q4-19	Q4-19	Q3-19	
Market Value				
Market Value (\$M)	106.6		98.4	
Number Of Holdings	3354	6587	3470	
Characteristics				
Weighted Avg. Market Cap. (\$B)	69.3	64.5	59.6	
Median Market Cap (\$B)	1.5	1.7	1.3	
P/E Ratio	15.9	16.2	15.3	
Yield	2.9	3.0	3.0	
EPS Growth - 5 Yrs.	9.2	9.3	8.7	
Price to Book	2.5	2.4	2.5	
Beta (holdings; domestic)	1.0	1.0	1.0	

#### Sector Allocation (%) vs MSCI ACWI ex USA IMI



Top 10 Holdings		
HDFC BANK ADR 1:3	1.3%	
CSL	1.2%	
LVMH	1.2%	
NESTLE 'R'	1.2%	
RELIANCE INDUSTRIES	1.2%	
SHOPIFY SUBD.VTG.SHS.'A'	1.0%	
EXPERIAN	0.9%	
TENCENT HOLDINGS	0.9%	
ACCENTURE CLASS A	0.9%	
AIA GROUP	0.9%	
Total	10.7%	



### Total International Equity | As of December 31, 2019

Total International Equity Region Allocation			
	vs MSCI ACWI ex USA IMI		
Region	% of Total	% of Bench	% Diff
North America ex U.S.	2.1%	6.7%	-4.6%
United States	5.8%	0.0%	5.8%
Europe Ex U.K.	28.6%	30.3%	-1.7%
United Kingdom	9.2%	11.2%	-2.0%
Pacific Basin Ex Japan	11.2%	7.9%	3.3%
Japan	12.4%	17.0%	-4.5%
Emerging Markets	30.4%	25.4%	5.0%
Other	0.2%	1.5%	-1.3%
Total	100.0%	100.0%	0.0%

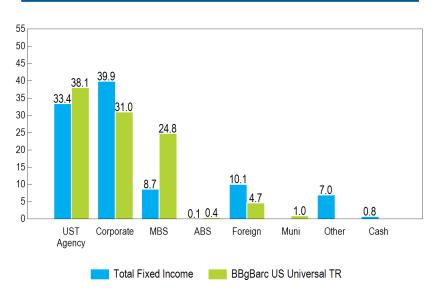
## City of Ann Arbor Employees' Retirement System

#### Total Fixed Income | As of December 31, 2019

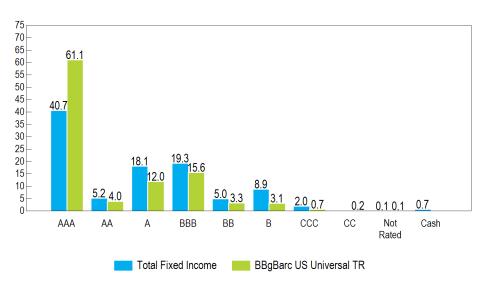
Asset Allocation on December 31, 2019							
	Actual	Actual					
Beach Point Leveraged Loan	\$11,384,789	7.1%					
IR&M 1-10 Year Index	\$21,495,412	13.5%					
Northern Trust 1-5 Year Credit Bond	\$47,605,590	29.8%					
Northern Trust Barclays Aggregate Index	\$44,193,654	27.7%					
Sky Harbor Broad High Yield Market	\$10,397,393	6.5%					
Stone Harbor Emerging Markets Local Currency Debt	\$13,171,718	8.3%					
Summit Partners Credit Fund II, L.P.	\$7,466,605	4.7%					
Summit Partners Credit Fund III, L.P.	\$3,807,020	2.4%					
Total	\$159,522,181	100.0%					

Total Fixed Income Characteristics									
vs. BBgBarc US Universal TR									
Portfolio Index Portfoli									
	Q4-19	Q3-19							
Fixed Income Characteristics									
Yield to Maturity	2.8	2.8	2.9						
Average Duration	4.0	6.1	4.0						
Average Quality	А	AA	А						
Weighted Average Maturity	5.5	12.2	5.5						

Sector Allocation







# **Retirement System Portfolio Reviews**

# City of Ann Arbor Employees' Retirement System

#### Northern Trust Russell 1000 Index | As of December 31, 2019

Account Information					
Account Name	Northern Trust Russell 1000 Index				
Account Structure	Commingled Fund				
Investment Style	Passive				
Inception Date	7/01/06				
Account Type	US Stock Large Cap Core				
Benchmark	Russell 1000				
Universe	eV US Large Cap Core Equity Gross				

Portfolio Performance Summary								
	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)	Inceptio n (%)	Inceptio n Date
Northern Trust Russell 1000 Index	9.0	31.4	15.0	11.5	14.6	13.6	9.5	Jul-06
Northern Trust Russell 1000 Index (Net)	9.0	31.4	15.0	11.4	14.6	13.5	9.5	
Russell 1000	9.0	31.4	15.0	11.5	14.6	13.5	9.5	Jul-06
eV US Large Cap Core Equity Gross Median	8.2	29.5	14.4	11.0	14.4	13.3	9.6	Jul-06
eV US Large Cap Core Equity Gross Rank	34	31	40	34	43	39	54	Jul-06

Top 10 Holdir	ngs
APPLE	4.4%
MICROSOFT	4.0%
AMAZON.COM	2.6%
FACEBOOK CLASS A	1.6%
BERKSHIRE HATHAWAY 'B'	1.5%
JP MORGAN CHASE & CO.	1.5%
ALPHABET 'C'	1.3%
ALPHABET A	1.3%
JOHNSON & JOHNSON	1.3%
VISA 'A'	1.1%

Northern Trust I	Russell 1000	Index Characte	ristics
	Portfolio	Index	Portfoli
	Q4-19	Q4-19	Q3-19
Market Value			
Market Value (\$M)	142.3		135.
Number Of Holdings	993	997	99
Characteristics			
Weighted Avg. Market Cap. (\$B)	249.5	246.6	209.
Median Market Cap (\$B)	10.5	10.4	9
P/E Ratio	23.1	23.1	20
Yield	1.8	1.8	1
EPS Growth - 5 Yrs.	13.5	13.4	13
Price to Book	3.8	3.8	3
Beta (holdings; domestic)	1.0	1.0	1
Sector Distribution			
Energy	4.1	4.1	4
Materials	2.8	2.8	2
Industrials	9.5	9.5	9
Consumer Discretionary	10.0	10.0	10
Consumer Staples	6.7	6.7	7
Health Care	13.9	13.9	13
Financials	13.0	13.2	13
Information Technology	23.0	23.1	22
Communication Services	9.9	9.9	9
Utilities	3.2	3.2	3
Real Estate	3.7	3.7	4.

# City of Ann Arbor Employees' Retirement System

## Northern Trust S&P 400 MidCap Index | As of December 31, 2019

Account Information					
Account Name	Northern Trust S&P 400 MidCap Index				
Account Structure	Commingled Fund				
Investment Style	Passive				
Inception Date	6/01/07				
Account Type	US Stock Mid Cap Core				
Benchmark	S&P 400 MidCap				
Universe	eV US Mid Cap Equity Gross				

Portfolio Performance Summary								
	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)	Inceptio n (%)	Inceptio n Date
Northern Trust S&P 400 MidCap Index	7.1	26.2	9.3	9.0	12.3	12.7	8.4	Jun-07
Northern Trust S&P 400 MidCap Index (Net)	7.1	26.2	9.2	9.0	12.3	12.7		
S&P 400 MidCap	7.1	26.2	9.3	9.0	12.3	12.7	8.3	Jun-07
eV US Mid Cap Equity Gross Median	7.3	30.8	12.5	9.9	13.4	13.4	8.8	Jun-07
eV US Mid Cap Equity Gross Rank	53	79	72	63	72	67	61	Jun-07

Тор 10 Но	ldings
TELEDYNE TECHS.	0.7%
DOMINO'S PIZZA	0.7%
TYLER TECHNOLOGIES	0.6%
ALLEGHANY	0.6%
TERADYNE (XSC)	0.6%
WEST PHARM.SVS.	0.6%
MEDICAL PROPS.TRUST	0.6%
FAIR ISAAC	0.6%
TRIMBLE	0.6%
CAMDEN PROPERTY TST.	0.6%

Northern Trust S&	P 400 MidCa	ap Index Charac	teristics
	Portfolio	Index	Portfoli
	Q4-19	Q4-19	Q3-1
Market Value			
Market Value (\$M)	8.2		7.
Number Of Holdings	400	400	40
Characteristics			
Weighted Avg. Market Cap. (\$B)	6.0	6.0	5
Median Market Cap (\$B)	4.3	4.3	2
P/E Ratio	21.7	21.7	20
Yield	1.7	1.7	1
EPS Growth - 5 Yrs.	11.6	11.5	11
Price to Book	2.7	2.8	2
Beta (holdings; domestic)	1.1	1.1	
Sector Distribution			
Energy	2.1	2.2	2
Materials	6.1	6.1	6
Industrials	15.6	15.5	15
Consumer Discretionary	13.6	14.1	12
Consumer Staples	2.9	3.3	2
Health Care	9.7	9.6	9
Financials	16.6	16.5	16
Information Technology	15.6	15.4	15
Communication Services	1.9	2.0	2
Utilities	4.6	4.3	4
Real Estate	11.2	10.9	11

# City of Ann Arbor Employees' Retirement System

#### Loomis Sayles Small Cap Value | As of December 31, 2019

Account Information						
Account Name	Loomis Sayles Small Cap Value					
Account Structure	Separate Account					
Investment Style	Active					
Inception Date	4/01/97					
Account Type	US Stock Small Cap Value					
Benchmark	Russell 2000 Value					
Universe	eV US Small Cap Value Equity Gross					

Portfolio Performance Summary								
	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)	Inceptio n (%)	Inceptio n Date
Loomis Sayles Small Cap Value	5.7	25.3	5.6	7.8	11.3	11.9	11.0	Apr-97
Loomis Sayles Small Cap Value (Net)	5.5	24.4	4.8	7.1	10.5	11.2		
Russell 2000 Value	8.5	22.4	4.8	7.0	10.1	10.6	9.2	Apr-97
Russell 2000	9.9	25.5	8.6	8.2	11.6	11.8	8.6	Apr-97
eV US Small Cap Value Equity Gross Median	7.9	24.4	5.6	7.5	11.4	12.1	11.3	Apr-97
eV US Small Cap Value Equity Gross Rank	87	43	50	44	53	55	56	Apr-97

Top 10 Holdings	
VIAD	1.4%
MARRIOTT VACATIONS WWD.	1.3%
CHURCHILL DOWNS	1.2%
GCI LIBERTY A	1.2%
HARSCO	1.2%
LITTELFUSE	1.2%
NOMAD FOODS	1.2%
ALLETE	1.2%
APERGY	1.1%
POPULAR	1.1%

Loomis Sayles	Small Cap Value	e Characteristic	S
	Portfolio	Index	Portfoli
	Q4-19	Q4-19	Q3-19
Market Value			
Market Value (\$M)	17.2		16.
Number Of Holdings	133	1402	13
Characteristics			
Weighted Avg. Market Cap. (\$B)	3.8	2.2	3.
Median Market Cap (\$B)	3.2	0.7	3
P/E Ratio	19.5	16.3	19.
Yield	1.5	2.1	1.
EPS Growth - 5 Yrs.	13.3	7.4	11.
Price to Book	2.2	1.7	2.
Beta (holdings; domestic)	1.2	1.2	1
Sector Distribution			
Energy	3.1	5.8	2.
Materials	3.2	4.7	3.
Industrials	19.5	12.6	18.
Consumer Discretionary	9.9	9.7	9.
Consumer Staples	4.0	2.7	4.
Health Care	5.3	5.4	5.
Financials	23.0	30.2	22.
Information Technology	12.0	9.7	12
Communication Services	3.8	2.2	2.
Utilities	5.1	5.9	6
Real Estate	7.3	11.1	8.

# City of Ann Arbor Employees' Retirement System

#### Northern Trust MSCI EAFE Index | As of December 31, 2019

Northern Trust	MSCI EAFE Inde	x Characteristic	cs
	Portfolio	Index	Portfolio
	Q4-19	Q4-19	Q3-19
Market Value			
Market Value (\$M)	30.6		28.
Number Of Holdings	957	918	948
Characteristics			
Weighted Avg. Market Cap. (\$B)	63.5	63.7	60.
Median Market Cap (\$B)	10.6	10.8	9.
P/E Ratio	17.1	17.2	15.
Yield	3.2	3.2	3.
EPS Growth - 5 Yrs.	6.8	7.1	7.
Price to Book	2.4	2.4	2
Beta (holdings; domestic)	1.0	1.0	1.
Sector Distribution			
Energy	4.9	4.9	5
Materials	7.0	7.1	7.
Industrials	15.0	15.1	14.
Consumer Discretionary	11.7	11.6	11
Consumer Staples	11.5	11.2	11.
Health Care	11.6	12.2	11
Financials	18.5	18.6	18
Information Technology	6.7	7.0	6
Communication Services	5.3	5.2	5
Utilities	3.7	3.7	3
Real Estate	3.5	3.4	3.

Accour	nt Information
Account Name	Northern Trust MSCI EAFE Inde
Account Structure	Commingled Fur
Investment Style	Passiv
Inception Date	12/01/
Account Type	Non-US Stock Develope
Benchmark	MSCI EAI
Universe	eV EAFE Core Equity Gro

Deutfelle Deufeuneen en

	Portfol	io Per	formar	ice Sui	mmary	/		
	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)	Inceptio n (%)	Inceptio n Date
Northern Trust MSCI EAFE Index	8.1	22.3	9.9	6.0			5.2	Dec-14
Northern Trust MSCI EAFE Index (Net)	8.0	22.2	9.8	5.9			5.1	
MSCI EAFE	8.2	22.0	9.6	5.7	6.3	5.5	4.8	Dec-14
eV EAFE Core Equity Gross Median	9.2	23.4	10.1	7.0	7.8	7.4	6.4	Dec-14
eV EAFE Core Equity Gross Rank	75	61	55	68			74	Dec-14

Top 10 Holdings	
NESTLE 'R'	2.2%
ROCHE HOLDING	1.5%
NOVARTIS 'R'	1.3%
TOYOTA MOTOR	1.1%
HSBC HOLDINGS	1.1%
SAP	0.9%
BP	0.9%
ASTRAZENECA	0.9%
TOTAL	0.9%
ROYAL DUTCH SHELL A(LON)	0.9%

# City of Ann Arbor Employees' Retirement System

#### First Eagle Gold Fund | As of December 31, 2019

Account Information		
Account Name	First Eagle Gold Fund	
Account Structure	Mutual Fund	
Investment Style	Active	
Inception Date	7/01/17	
Account Type	Other	
Benchmark	FTSE Gold Mines PR USD	
Universe	eV Global Natural Resources Equity Net	

	Portfol	io Per	formar	nce Su	mmary	/		
	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)	Inceptio n (%)	Inceptio n Date
First Eagle Gold Fund (Net)	9.9	39.0					6.8	Jul-17
FTSE Gold Mines PR USD	8.6	41.2	11.0	11.4	-5.3	-4.6	11.9	Jul-17
S&P Global Natural Resources Index TR USD	9.5	17.2	7.9	4.8	2.1	1.6	8.7	Jul-17
eV Global Natural Resources Equity Net Median						-		Jul-17
eV Global Natural Resources Equity Net Rank						-		Jul-17

Top 10 Holdings	
BARRICK GOLD (NYS)	14.9%
NEWMONT	13.8%
WHEATON PRECIOUS METALS	9.6%
AGNICO EAGLE MINES	6.8%
NOVAGOLD RESOURCES	6.8%
NEWCREST MINING	5.9%
B2GOLD	5.8%
ROYAL GOLD	5.4%
DETOUR GOLD	4.9%
FRANCO-NEVADA	4.8%

First Eagle	Gold Fund Cl	haracteristics	
	Portfolio	Index	Portfol
	Q4-19	Q4-19	Q3-1
Market Value			
Market Value (\$M)	8.7		7
Number Of Holdings	21	1646	
Characteristics			
Weighted Avg. Market Cap. (\$B)	15.9	186.3	14
Median Market Cap (\$B)	5.9	13.5	5
P/E Ratio	36.0	20.4	53
Yield	0.9	2.3	C
EPS Growth - 5 Yrs.	-8.9	10.6	-11
Price to Book	2.5	3.2	2
Beta (holdings; domestic)	0.2	1.0	۵
Sector Distribution			
Energy	0.0	4.9	0
Materials	92.4	4.4	93
Industrials	0.0	11.0	0
Consumer Discretionary	0.0	10.3	0
Consumer Staples	0.0	8.3	0
Health Care	0.0	13.0	0
Financials	0.0	15.7	0
nformation Technology	0.0	17.4	0
Communication Services	0.0	8.4	0
Utilities	0.0	3.4	0
Real Estate	0.0	3.2	0

# City of Ann Arbor Employees' Retirement System

## Hexavest International Equity | As of December 31, 2019

Hexavest Inte	rnational Equ	uity Characteris	stics
nexavest inte	Portfolio	Index	Portfolio
	Q4-19	Q4-19	Q3-19
Market Value			
Market Value (\$M)	18.1		16.8
Number Of Holdings	215	918	235
Characteristics			
Weighted Avg. Market Cap. (\$B)	68.8	63.7	64.7
Median Market Cap (\$B)	21.7	10.8	18.5
P/E Ratio	14.5	17.2	14.3
Yield	3.6	3.2	3.7
EPS Growth - 5 Yrs.	7.0	7.1	6.4
Price to Book	2.2	2.4	2.
Beta (holdings; domestic)	1.1	1.0	1.0
Sector Distribution			
Energy	9.4	4.9	7.2
Materials	8.2	7.1	10.
Industrials	10.5	15.1	6.
Consumer Discretionary	7.4	11.6	8.7
Consumer Staples	14.2	11.2	13.8
Health Care	12.4	12.2	13.2
Financials	20.3	18.6	15.0
Information Technology	1.0	7.0	1.
Communication Services	3.7	5.2	6.5
Utilities	1.5	3.7	4.6
Real Estate	1.8	3.4	3.7

# Account Information

Account Name	Hexavest International Equity
Account Structure	Commingled Fund
Investment Style	Active
Inception Date	8/01/17
Account Type	Non-US Stock Developed
Benchmark	MSCI EAFE
Universe	eV EAFE Core Equity Gross

	Portfolic	o Perf	ormar	nce Su	ımmar	У <b>У</b>		
	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)	Inceptio n (%)	Inceptio n Date
Hexavest International Equity (Net)	7.1	16.4				-	2.6	Aug-17
MSCI EAFE	8.2	22.0	9.6	5.7	6.3	5.5	4.9	Aug-17
eV EAFE Core Equity Gross Median	9.2	23.4	10.1	7.0	7.8	7.4	5.0	Aug-17
eV EAFE Core Equity Gross Rank	91	97				-	85	Aug-17

NESTLE 'R' ISHARES MSCI EMERGING MARKETS ETF	
	3.0%
ISHARES MISCI EMERGING MARKETS ETT	2.4%
ROCHE HOLDING	2.4%
ISHARES MSCI CHINA	2.2%
NOVARTIS 'R'	2.0%
ROYAL DUTCH SHELL A(LON)	1.9%
TOTAL	1.9%
SANOFI	1.6%
HSBC HOLDINGS	1.5%
ISHARES MSCI SOUTH KOREA ETF	1.5%

# City of Ann Arbor Employees' Retirement System

#### WCM Focused Growth International | As of December 31, 2019

	Portfolio	Index	Portfoli
	Q4-19	Q4-19	Q3-19
Market Value			
Market Value (\$M)	21.6		19.
Number Of Holdings	29	2379	3
Characteristics			
Weighted Avg. Market Cap. (\$B)	101.3	74.1	88.
Median Market Cap (\$B)	44.4	8.2	40.
P/E Ratio	32.6	16.3	29.
Yield	1.2	3.0	1.
EPS Growth - 5 Yrs.	15.0	9.1	14
Price to Book	5.8	2.4	5.
Beta (holdings; domestic)	0.9	1.0	0.
Sector Distribution			
Energy	0.0	6.5	0.
Materials	3.1	7.4	3.
Industrials	14.4	12.0	13
Consumer Discretionary	18.5	11.8	16
Consumer Staples	8.9	9.4	8
Health Care	16.3	8.8	14
Financials	7.2	21.5	10.
Information Technology	23.3	9.3	18
Communication Services	3.6	6.6	4
Utilities	0.0	3.4	0.
Real Estate	0.0	3.2	0.

Ассо	unt Information
Account Name	WCM Focused Growth International
Account Structure	Commingled Fund
Investment Style	Active
Inception Date	8/01/17
Account Type	Non-US Stock Developed
Benchmark	MSCI ACWI ex USA
Universe	eV EAFE Core Equity Gross

	Portfoli	o Perf	ormai	nce Su	ımmaı	у		
	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)	Inceptio n (%)	Inceptio n Date
WCM Focused Growth International (Net)	9.8	35.7				-	13.2	Aug-17
MSCI ACWI ex USA	8.9	21.5	9.9	5.5	5.4	5.0	4.8	Aug-17
eV EAFE Core Equity Gross Median	9.2	23.4	10.1	7.0	7.8	7.4	5.0	Aug-17
eV EAFE Core Equity Gross Rank	42	1					1	Aug-17

CSL SHOPIFY SUBD.VTG.SHS.'A' ACCENTURE CLASS A LVMH EXPERIAN	
ACCENTURE CLASS A LVMH	5.5%
LVMH	5.2%
	4.8%
EXPERIAN	4.7%
	4.7%
CANADIAN PACIFIC RY.	4.7%
TAIWAN SEMICON.SPN.ADR 1:5	4.5%
ESSILORLUXOTTICA	4.1%
RESMED	4.0%
NESTLE 'R' (OTC)	4.0%

# City of Ann Arbor Employees' Retirement System

## Dimensional Emerging Markets Value | As of December 31, 2019

Account Information					
Account Name	Dimensional Emerging Markets Value				
Account Structure	Mutual Fund				
Investment Style	Active				
Inception Date	2/01/12				
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 (%)	7 Yrs (%)	10 Yrs (%)	Inceptio n (%)	Inceptio n Date
Dimensional Emerging Markets Value (Net)	9.7	9.6	8.9	4.7	2.1	-	2.5	Feb-12
MSCI Emerging Markets	11.8	18.4	11.6	5.6	3.3	3.7	3.7	Feb-12
eV Emg Mkts Equity Net Median	11.4	19.3	10.7	5.5	3.8	4.4	4.4	Feb-12
eV Emg Mkts Equity Net Rank	75	96	77	66	89		96	Feb-12

Top 10 Holdings	
RELIANCE INDUSTRIES	3.6%
CHINA CON.BANK 'H'	2.8%
VALE ON	2.0%
CHINA MOBILE	1.9%
INDL&COML.BOC.'H'	1.5%
HON HAI PRECN.IND.	1.4%
PTRO.BRAO.ADR 1:2	1.2%
PJSC LUKOIL SPON (LON) ADR	1.2%
CNOOC	1.1%
PETROLEO BRASILEIRO PN	1.1%

Dimensional Emer	rging Markets \	/alue Charact	eristics
	Portfolio	Index	Portfolic
	Q4-19	Q4-19	Q3-19
Market Value			
Market Value (\$M)	22.7		20.
Number Of Holdings	2333	1371	2442
Characteristics			
Weighted Avg. Market Cap. (\$B)	30.3	106.2	25.0
Median Market Cap (\$B)	0.4	5.9	0.4
P/E Ratio	10.4	15.0	10.0
Yield	3.6	2.7	3.9
EPS Growth - 5 Yrs.	5.9	13.1	6.
Price to Book	1.5	2.6	1.
Beta (holdings; domestic)	1.1	1.1	1
Sector Distribution			
Energy	16.0	7.3	16.
Materials	14.9	7.4	15.
Industrials	8.7	5.3	9.
Consumer Discretionary	6.9	14.2	7
Consumer Staples	2.6	6.2	3
Health Care	1.3	2.7	1.
Financials	29.1	24.6	29.
Information Technology	8.4	15.7	8.
Communication Services	4.9	11.0	4.
Utilities	1.5	2.6	1.
Real Estate	4.8	3.0	4

# City of Ann Arbor Employees' Retirement System

## GQG Partners Emerging Markets Equity | As of December 31, 2019

Accou	unt Information
Account Name	GQG Partners Emerging Markets Equity
Account Structure	Commingled Fund
Investment Style	Active
Inception Date	7/01/17
Account Type	Non-US Stock Emerging
Benchmark	MSCI Emerging Markets
Universe	eV Emg Mkts Equity Gross

	Portfoli	o Perf	ormar	nce Su	ımmar	у		
	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs 1 (%)	IO Yrs (%)	Inceptio n (%)	Inceptio n Date
GQG Partners Emerging Markets Equity	6.5	23.1				-	9.2	Jul-17
MSCI Emerging Markets	11.8	18.4	11.6	5.6	3.3	3.7	6.6	Jul-17
eV Emg Mkts Equity Gross Median	11.5	19.8	11.7	6.5	4.7	5.3	6.6	Jul-17
eV Emg Mkts Equity Gross Rank	94	33				-	21	Jul-17

Top 10 Holdings	
HOUSING DEVELOPMENT FINANCE CORPORATION	6.1%
ALIBABA GROUP HOLDING ADR 1:8	6.0%
BANK CENTRAL ASIA	4.6%
AIA GROUP	4.4%
HDFC BANK ADR 1:3	4.1%
CHINA TOWER 'H'	3.3%
BANCO BRADESCO PN	3.1%
PING AN INSURANCE (GROUP) OF CHINA 'H'	2.9%
RELIANCE INDUSTRIES	2.8%
GUANGDONG INVESTMENT	2.8%

	Portfolio	Portfolio Index			
	Q4-19	Q4-19	Q3-19		
Market Value					
Market Value (\$M)	13.7		12.		
Number Of Holdings	52	1371	5		
Characteristics					
Weighted Avg. Market Cap. (\$B)	106.4	106.2	68.		
Median Market Cap (\$B)	46.0	5.9	34.		
P/E Ratio	19.1	15.0	21.		
Yield	2.2	2.7	2.		
EPS Growth - 5 Yrs.	15.7	13.1	11.		
Price to Book	3.3	2.6	3.		
Beta (holdings; domestic)	1.1	1.1	0.		
Sector Distribution					
Energy	8.4	7.3	5		
Materials	4.9	7.3	1		
Industrials	5.3	5.3	7		
Consumer Discretionary	8.1	14.2	0		
Consumer Staples	6.4	6.2	21		
Health Care	2.7	2.7	3		
Financials	38.0	24.6	32		
Information Technology	14.2	15.7	8		
Communication Services	2.6	11.0	4		
Utilities	2.8	2.6	5.		
Real Estate	3.6	3.0	4.		



#### Ironsides Partnership Fund III, L.P. | As of December 31, 2019

		Account Information					
	Account Name		Ironsides Part	nership Fund III, L	.P.		
	Account Structure			Oth	er		
			Acti	ve			
	Inception Date			5/31/	/15		
			Private Equ	ity			
	Benchmark						
	Non-Marke	table Securities	Overview by A	Account Type			
Account Type Account	Vintage Year	Commitment	Cumulative Takedown	Cumulative Distributions	Value (RV)	Total Value (RV + Dist)	Unfunded Commitment
Private Equity Ironsides Partners III, L.P.	ship Fund 2013	\$6,000,000	\$3,568,795	\$99,815	\$5,136,376	\$5,236,191	\$2,431,205
Total Account		\$6,000,000	\$3,568,795	\$99,815	\$5,136,376	\$5,236,191	\$2,431,205

#### **Investment Strategy**

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

As of September 30,2019, the number of investments is 10 and a Gross IRR of 17.9%.



#### Ironsides Co-Investment Fund III, L.P. | As of December 31, 2019

		Account Information						
	A	ccount Name	I	ronsides Co-Invo	estment Fund III, L	.P.		
	A	ccount Structure			Oth	er		
	In	vestment Style			Acti	ve		
	Inception Date				5/31/	/15		
	A	ccount Type			Private Equ	ity		
	Be	enchmark						
		Non-Marke	table Securities	Overview by A	Account Type			
Account Type	Account	Vintage Year	Commitment	Cumulative Takedown	Cumulative Distributions	Value (RV)	Total Value (RV + Dist)	Unfunded Commitment
Private Equity	Ironsides Co-Investment Fund III, L.P.	2013	\$6,000,000	\$8,972,209	\$6,460,154	\$5,718,834	\$12,178,988	-\$2,972,209
	Total Account		\$6,000,000	\$8,972,209	\$6,460,154	\$5,718,834	\$12,178,988	-\$2,972,209

#### **Investment Strategy**

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

As of September 30,2019, the number of investments is 10 and a Gross IRR of 17.9%.



#### Ironsides Direct Investment Fund V, L.P. | As of December 31, 2019

		Account Information						
	Acco	ount Name	Iro	nsides Direct Inv	estment Fund V, L	.Р.		
	Acco	ount Structure			Oth	er		
	Inve	stment Style			Acti	ve		
	Inception Date				11/01/	18		
	Acco	ount Type			Private Equi	ty		
	Bend	chmark						
		Non-Market	able Securities	Overview by A	Account Type			
Account Type	Account	Vintage Year	Commitment	Cumulative Takedown	Cumulative Distributions	Value (RV)	Total Value (RV + Dist)	Unfunded Commitment
Private Equity	Ironsides Direct Investment Fund V, L.P.	2018	\$3,000,000	\$3,139,139	\$206,076	\$3,207,848	\$3,413,925	-\$139,139
	Total Account		\$3,000,000	\$3,139,139	\$206,076	\$3,207,848	\$3,413,925	-\$139,139

#### **Investment Strategy**

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

As of September 30,2019, the number of investments is 10 and a Gross IRR of 17.9%.

# City of Ann Arbor Employees' Retirement System

#### Strategic Investors Fund VIII L.P. | As of December 31, 2019

Account Information							
Account Name	Strategic Investors Fund VIII L.P.						
Account Structure	Other						
Investment Style	Active						
Inception Date	2/01/17						
Account Type	Private Equity						
Benchmark							

Non-Marketable Securities Overview								
	As of December 31, 2019							
Account Type	Account	Vintage Year	Commitment	Cumulative Takedown	Cumulative Distributions	Value (RV)	Total Value (RV + Dist)	Unfunded Commitment
Private Equity	Strategic Investors Fund VIII L.P.	2017	\$8,000,000	\$5,528,000	\$0	\$7,668,649	\$7,668,649	\$2,472,000
	Total Account		\$8,000,000	\$5,528,000	\$0	\$7,668,649	\$7,668,649	\$2,472,000

# City of Ann Arbor Employees' Retirement System

#### Arboretum Ventures V, L.P. | As of December 31, 2019

Account Information							
Account Name	Arboretum Ventures V, L.P.						
Account Structure	Other						
Investment Style	Active						
Inception Date	5/31/19						
Account Type	Private Equity						
Benchmark							

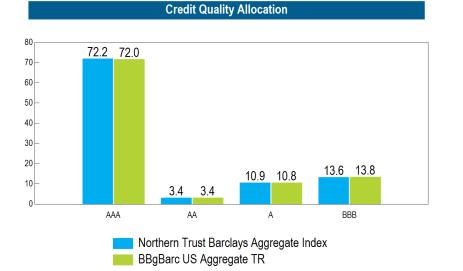
Non-Marketable Securities Overview									
As of December 31, 2019									
Account Type	Account	Vintage Year	Commitment	Cumulative Takedown	Cumulative Distributions	Value (RV)	Total Value (RV + Dist)	Unfunded Commitment	
Private Equity	Arboretum Ventures V, L.P.	2019	\$8,000,000	\$152,000	\$0	\$90,760	\$90,760	\$7,848,000	
	Total Account		\$8,000,000	\$152,000	\$0	\$90,760	\$90,760	\$7,848,000	

## City of Ann Arbor Employees' Retirement System

#### Northern Trust Barclays Aggregate Index | As of December 31, 2019

Account Information							
Account Name	Northern Trust Barclays Aggregate Index						
Account Structure	Commingled Fund						
Investment Style	Passive						
Inception Date	7/01/98						
Account Type	US Fixed Income Investment Grade						
Benchmark	BBgBarc US Aggregate TR						
Universe	eV US Core Fixed Inc Gross						

Portfolio Performance Summary								
	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)	Inceptio n (%)	Inceptio n Date
Northern Trust Barclays Aggregate Index	0.2	8.7	4.0	3.0	2.7	3.7	4.8	Jul-98
Northern Trust Barclays Aggregate Index (Net)	0.1	8.7	4.0	3.0	2.6	3.7		
BBgBarc US Aggregate TR	0.2	8.7	4.0	3.0	2.7	3.7	4.8	Jul-98
eV US Core Fixed Inc Gross Median	0.2	9.2	4.4	3.4	3.1	4.3	5.3	Jul-98
eV US Core Fixed Inc Gross Rank	62	78	85	91	91	91	94	Jul-98



#### Sector Allocation 50 45 40 -40.842.1 35 -29.129.1 30 25.025.1 25 20 15 -10 4.5 2.3 5-1.0 0.5 0.5 0.1 0 UST Corporate MBS ABS Cash Foreign Muni Agency Northern Trust Barclays Aggregate Index BBgBarc US Aggregate TR

Northern Trust Barclays Aggregate Index Characteristics vs. BBgBarc US Aggregate TR

	Portfolio	Index	Portfolio
	Q4-19	Q4-19	Q3-19
Fixed Income Characteristics			
Yield to Maturity	2.3	2.3	2.3
Average Duration	5.9	6.3	5.8
Average Quality	AA	AA	AA
Weighted Average Maturity	7.9	13.1	7.9

## City of Ann Arbor Employees' Retirement System

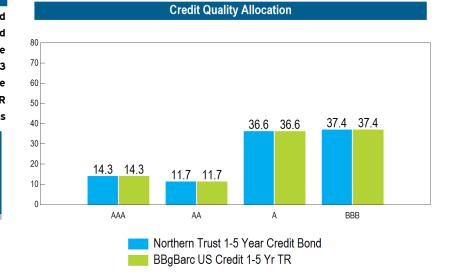
#### Northern Trust 1-5 Year Credit Bond | As of December 31, 2019

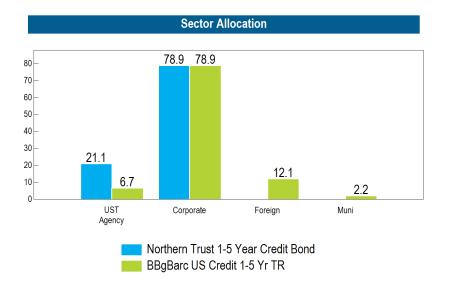
Account Information						
Account Name	Northern Trust 1-5 Year Credit Bond					
Account Structure	Commingled Fund					
Investment Style	Passive					
Inception Date	2/01/13					
Account Type	US Fixed Income Investment Grade					
Benchmark	BBgBarc US Credit 1-5 Yr TR					
Universe	eV US Short Duration Fixed Inc Gross					

Portfolio Performance Summary									
	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)	Inceptio n (%)	Inceptio n Date	
Northern Trust 1-5 Year Credit Bond	0.8	6.5	3.2	2.7	2.3	-	2.3	Feb-13	
Northern Trust 1-5 Year Credit Bond (Net)	0.8	6.4	3.1	2.6			2.3		
BBgBarc US Credit 1-5 Yr TR	0.8	6.6	3.3	2.7	2.4	3.1	2.4	Feb-13	
eV US Short Duration Fixed Inc Gross Median	0.6	4.6	2.6	2.1	1.8	2.1	1.8	Feb-13	
eV US Short Duration Fixed Inc Gross Rank	11	5	11	12	13		12	Feb-13	

Northern Trust 1-5 Year Credit Bond Characteristics vs. BBgBarc US Credit 1-5 Yr TR

	Portfolio	Portfolio Index						
	Q4-19	Q4-19	Q3-19					
Fixed Income Characteristics								
Yield to Maturity	2.1	2.2	2.2					
Average Duration	2.6	2.7	2.6					
Average Quality	А	А	A					
Weighted Average Maturity	2.9	2.9	2.9					





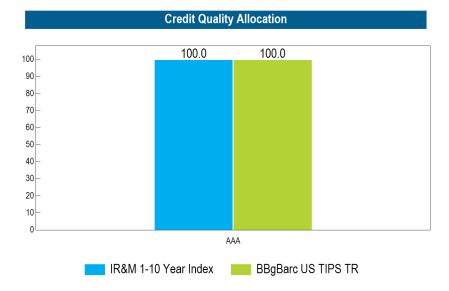
# City of Ann Arbor Employees' Retirement System

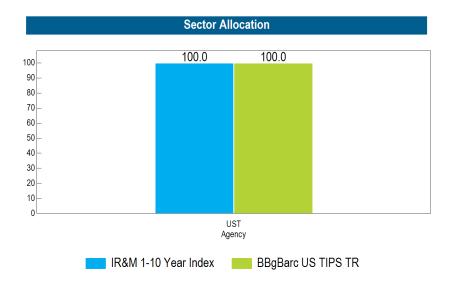
#### IR&M 1-10 Year Index | As of December 31, 2019

Account Information						
Account Name	IR&M 1-10 Year Index					
Account Structure	Commingled Fund					
Investment Style	Passive					
Inception Date	11/01/13					
Account Type	US Inflation Protected Fixed					
Benchmark	BBgBarc US TIPS 1-10 Yr TR					
Universe	eV US TIPS / Inflation Fixed Inc Gross					

Portfolio Performance Summary									
	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)	Inceptio n (%)	Inceptio n Date	
IR&M 1-10 Year Index	1.0	6.9	2.8	2.4			1.8	Nov-13	
IR&M 1-10 Year Index (Net)	1.0	6.9	2.7	2.3			1.7		
BBgBarc US TIPS 1-10 Yr TR	1.0	6.9	2.8	2.4	1.0	2.6	1.8	Nov-13	
eV US TIPS / Inflation Fixed Inc Gross Median	0.8	8.5	3.4	2.7	1.2	3.4	2.4	Nov-13	
eV US TIPS / Inflation Fixed Inc Gross Rank	42	80	94	85			91	Nov-13	

IR&M 1-10 Year Index Characteristics vs. BBgBarc US TIPS TR									
	Portfolio Index I								
	Q4-19	Q4-19	Q3-19						
Fixed Income Characteristics									
Yield to Maturity	0.1	0.2	0.3						
Average Duration	4.9	7.4	5.1						
Average Quality	AAA	AAA	AAA						
Weighted Average Maturity	5.0	8.0	5.2						





## City of Ann Arbor Employees' Retirement System

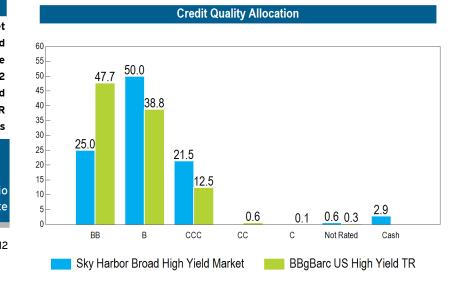
# Account InformationAccount NameSky Harbor Broad High Yield MarketAccount StructureCommingled FundInvestment StyleActiveInception Date9/01/12Account TypeUS Fixed Income High YieldBenchmarkBBgBarc US High Yield TRUniverseeV US High Yield Fixed Inc Gross

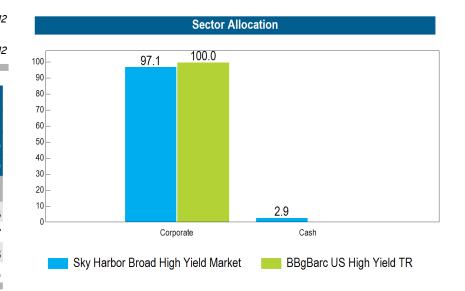
Portfolio Performance Summary										
	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)	Inceptio n (%)	Inceptio n Date		
Sky Harbor Broad High Yield Market	2.2	13.7	6.2	6.0	5.8	-	5.9	Sep-12		
Sky Harbor Broad High Yield Market (Net)	2.2	13.4	5.9	5.6	5.3	-	5.5			
BBgBarc US High Yield TR	2.6	14.3	6.4	6.1	5.8	7.6	6.2	Sep-12		
eV US High Yield Fixed Inc Gross Median	2.6	14.3	6.4	6.1	5.8	7.7	6.2	Sep-12		
eV US High Yield Fixed Inc Gross Rank	69	60	65	53	52	-	68	Sep-12		

# Sky Harbor Broad High Yield Market Characteristics

vs. Dbybarc os high field fix							
	Portfolio	Index	Portfolio				
	Q4-19	Q4-19	Q3-19				
Fixed Income Characteristics							
Yield to Maturity	5.9	7.1	6.3				
Average Duration	2.2	4.6	2.7				
Average Quality	В	В	В				
Weighted Average Maturity	5.5	5.9	5.5				









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## **City of Ann Arbor Employees' Retirement System**

#### Summit Partners Credit Fund II, L.P. | As of December 31, 2019

		Account Information						
		Account Name		Summit Partner	s Credit Fund II, L	Р.		
		Account Structure			Oth	er		
		Investment Style			Acti	ve		
		Inception Date			12/01/	14		
		Account Type		US Fixe	d Income High Yie	ld		
		Benchmark						
		Non-Market	able Securities (	Overview by A	Account Type			
Account Type	Account	Vintage Year	Commitment	Cumulative Takedown	Cumulative Distributions	Value (RV)	Total Value (RV + Dist)	Unfunded Commitment
US Fixed Income High Yield	Summit Partners Credit Fund II, L.P.	t 2011	\$9,200,000	\$12,538,037	\$6,937,351	\$7,466,605	\$14,403,956	-\$3,338,037
	Total Account		\$9,200,000	\$12,538,037	\$6,937,351	\$7,466,605	\$14,403,956	-\$3,338,037

#### **Investment Strategy**

Summit Partners Credit Fund II ("Fund II" or the "Fund") will invest in middle market companies through directly originated, senior secured (first or second lien) loans. When in a second lien position, Summit prefers to be junior to an asset–backed loan from a bank, and ideally a senior lender that it has brought into the transaction itself, often by syndicating a portion of unitranche loan at a lower rate while keeping a portion for itself at a much higher effective interest rate. The Fund will target middle market companies of scale that have stable and recurring revenue, while avoiding highly cyclical companies with high CAPEX requirements. Borrowers' use of proceeds will vary and may include acquisition capital, working capital, or refinancing capital. The Fund will seek to reduce repayment risk through call protections and will seek upside through penny warrants.

As of September 30,2019, the number of investments is 28 and Net IRR is 9%.



#### Summit Partners Credit Fund III, L.P. | As of December 31, 2019

		Account Information						
		Account Name		Summit Partner	s Credit Fund III, L	.P.		
		Account Structure			Oth	er		
		Investment Style			Acti	ve		
		Inception Date			11/01,	/18		
		Account Type		US Fixe	ed Income High Yie	eld		
		Benchmark						
		Non-Marke	table Securities (	Overview by A	Account Type			
Account Type	Account	Vintage Year	Commitment	Cumulative Takedown	Cumulative Distributions	Value (RV)	Total Value (RV + Dist)	Unfunded Commitment
US Fixed Income High Yield	Summit Partners Credit Fund III, L.P.	2018	\$9,000,000	\$6,300,575	\$2,449,120	\$3,807,020	\$6,256,140	\$2,699,425
	Total Account		\$9,000,000	\$6,300,575	\$2,449,120	\$3,807,020	\$6,256,140	\$2,699,425

#### **Investment Strategy**

Summit Partners Credit Fund III ("Fund III" or the "Fund") seeks to make opportunistic investments in non-sponsored, middle-market companies with business models characterized by stable, predictable cash generation. Summit continue to believe that middle market yields provide compelling value versus the syndicated market, and together with a variety of macroeconomic factors and secular trends, this has helped to create a dynamic market opportunity for alternative capital sources. Through their disciplined approach to credit investing – combining their deep credit market expertise and proactive approach to deal origination with the reach of the broader Summit platform – they remain committed to building a uniquely comprehensive understanding of middle market companies and proactively identifying a differentiated credit investment opportunity set.

As of September 30, 2019 the number of investments is 12 and Net IRR is 21%.

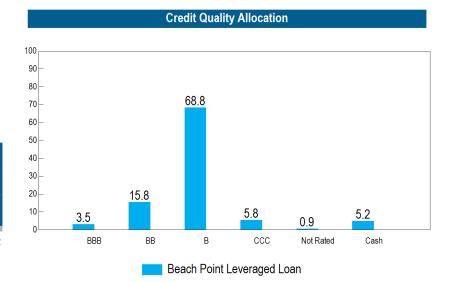
## City of Ann Arbor Employees' Retirement System

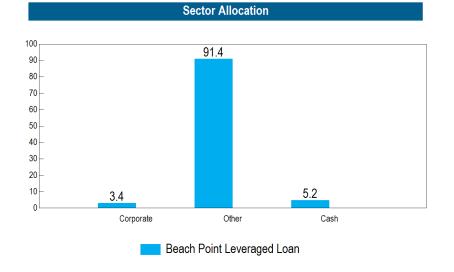
#### Beach Point Leveraged Loan | As of December 31, 2019

Account Information							
Account Name	Beach Point Leveraged Loan						
Account Structure	Commingled Fund						
Investment Style	Active						
Inception Date	4/01/12						
Account Type	US Fixed Income						
Benchmark	Credit Suisse Leveraged Loans						
Universe	eV US Float-Rate Bank Loan Fixed Inc Gross						

Portfolio Performance Summary									
	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)	Inceptio n (%)	Inceptio n Date	
Beach Point Leveraged Loan	1.8	9.2	4.3	4.3	4.5		5.0	Apr-12	
Beach Point Leveraged Loan (Net)	1.6	8.6	3.6	3.6	3.8		4.4		
Credit Suisse Leveraged Loans	1.7	8.2	4.5	4.5	4.4	5.2	4.7	Apr-12	
eV US Float-Rate Bank Loan Fixed Inc Gross Median	1.8	8.7	4.5	4.7	4.5	5.4	4.8	Apr-12	
eV US Float-Rate Bank Loan Fixed Inc Gross Rank	49	34	75	83	53		30	Apr-12	

Beach Point Leveraged Loan Characteristics							
	Portfolio						
	Q4-19	Q3-19					
Fixed Income Characteristics							
Yield to Maturity	6.1	6.2					
Average Duration	0.3	0.4					
Average Quality	В	В					
Weighted Average Maturity	5.1	5.1					





## City of Ann Arbor Employees' Retirement System

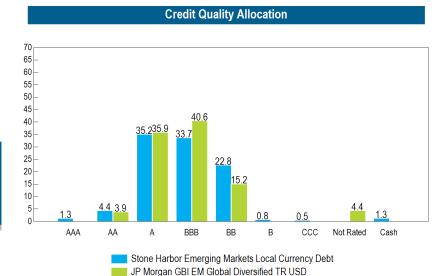
#### Stone Harbor Emerging Markets Local Currency Debt | As of December 31, 2019

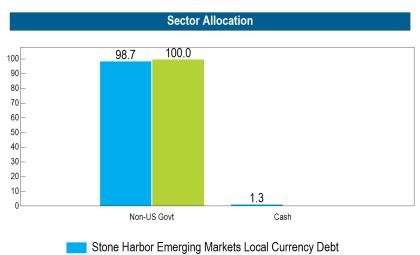
Account Information								
Account Name	Stone Harbor Emerging Markets Local Currency Debt							
Account Structure	Mutual Fund							
Investment Style	Active							
Inception Date	6/01/12							
Account Type	Non-US Fixed Income							
Benchmark	JP Morgan GBI EM Global Diversified TR USD							
Universe	eV Emg Mkts Fixed Inc - Local Currency Net							

Portfolio Performance Summary									
	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)	Inceptio n (%)	Inceptio n Date	
Stone Harbor Emerging Markets Local Currency Debt (Net)	5.2	13.1	5.6	1.7	-2.0	-	-0.2	Jun-12	
JP Morgan GBI EM Global Diversified TR USD	5.2	13.5	7.0	2.8	-0.2	2.7	1.7	Jun-12	
eV Emg Mkts Fixed Inc - Local Currency Net Median	5.4	13.4	6.5	2.3	-0.6	2.0	1.2	Jun-12	
eV Emg Mkts Fixed Inc - Local Currency Net Rank	68	57	74	76	94		98	Jun-12	

Stone Harbor Emerging Markets Local Currency Debt Characteristics vs. JP Morgan GBI EM Global Diversified TR <u>USD</u>

	Portfolio	Index	Portfolio
	Q4-19	Q4-19	Q3-19
Fixed Income Characteristics			
Yield to Maturity	6.0	5.2	6.0
Average Duration	5.8	5.4	5.8
Average Quality	BBB	BBB	BBB
Weighted Average Maturity	8.1	7.8	8.1





JP Morgan GBI EM Global Diversified TR USD

## City of Ann Arbor Employees' Retirement System

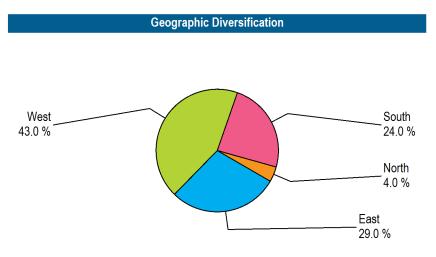
#### A.E.W Core Property Trust | As of December 31, 2019

Account Information							
Account Name	A.E.W Core Property Trust						
Account Structure	Separate Account						
Investment Style	Active						
Inception Date	7/01/13						
Account Type	Real Estate						
Benchmark	NCREIF ODCE (net)						
Universe							

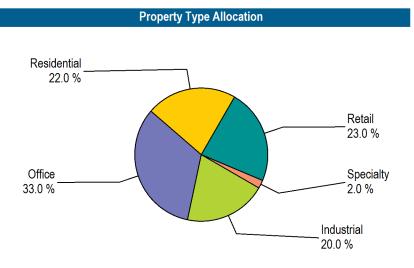
Portfolio Performance Summary									
	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)	Inceptio n (%)	Inceptio n Date	
A.E.W Core Property Trust (Net)	0.9	5.2	6.4	7.8			8.6	Jul-13	
NCREIF ODCE (net)	1.3	4.4	6.1	8.0	9.2	10.4	8.9	Jul-13	

#### **Investment Strategy**

AEW employs leverage that is in-line with NFI-ODCE and currently has 10% of the net asset value in non-core investments, but in an investment with primarily core characteristics (mezzanine loan). The strategy invests mostly in the East and South, with significantly less exposure to the Midwest.



Geographic Diversification: North represents Midwest region



As of September 30, 2019, the number of investments is 83 and net IRR is 11.2%. Fiscal Year begins July 1.



#### INVESCO Mortgage Recovery Loans | As of December 31, 2019

Account Information							
Account Name	INVESCO Mortgage Recovery Loans						
Account Structure	Other						
Investment Style	Active						
Inception Date	3/01/10						
Account Type	Real Estate						
Benchmark							

Non-Marketable Securities Overview by Account Type								
Account Type	Account	Vintage Year	Commitment	Cumulative Takedown	Cumulative Distributions	Value (RV)	Total Value (RV + Dist)	Unfunded Commitment
Real Estate	INVESCO Mortgage Recovery Loans	2008	\$11,000,000	\$7,938,905	\$10,114,422	\$558,510	\$10,672,932	\$3,061,095
	Total Account		\$11,000,000	\$7,938,905	\$10,114,422	\$558,510	\$10,672,932	\$3,061,095

#### **Investment Strategy**

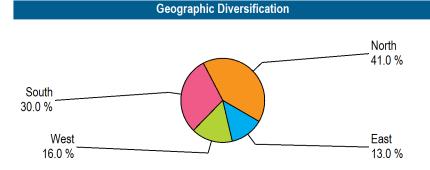
Using matching funds provided by the U.S. Treasury under the Public-Private Investment Program (PPIP), the INVESCO Mortgage Recovery Fund will invest, directly or indirectly, in a broad spectrum of mortgagerelated assets. The Fund will have a specific focus on legacy residential mortgage-backed securities ("RMBS") and commercial mortgage-backed securities ("CMBS"), residential mortgage and commercial real estate loans, and other distressed mortgage-related assets. The Funds will seek to construct a diverse portfolio of mortgage-related investments with sector allocations that will change as markets evolve and opportunities develop.

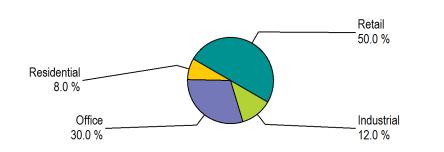
As of September 30,2019, the net IRR is 17.3%.



#### DRA Growth and Income Fund VIII | As of December 31, 2019

	Account Information							
	Acc	ount Name		DRA Growt	h and Income Fund	VIII		
	Acc	ount Structure			Ot	her		
	Inve	estment Style			Act	ive		
	Ince	eption Date			10/01	I/14		
	Acc	count Type			Real Est	ate		
	Ber	nchmark			NCREIF OD	CE		
		Non-Mark	etable Securities	Overview by A	Account Type			
Account Type	Account	Vintage Year	Commitment	Cumulative Takedown	Cumulative Distributions	Value (RV)	Total Value (RV + Dist)	Unfunded Commitment
Real Estate	DRA Growth and Income Fund VIII	2014	\$8,500,000	\$9,898,456	\$7,212,802	\$5,671,861	\$12,884,663	-\$1,398,456
	Total Account		\$8,500,000	\$9,898,456	\$7,212,802	\$5,671,861	\$12,884,663	-\$1,398,456





**Property Type Allocation** 

Geographic Diversification: North represents Midwest region

Investment Strategy

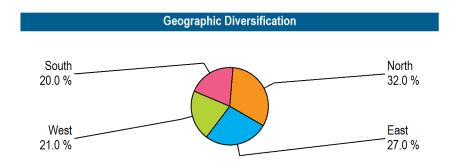
Fund VIII will invest in a diversified portfolio of office, retail, multi-family, industrial and other real-estate related properties and assets across the United States and its territories. The Company will seek to generate an attractive return to investors of 12-15%, net of fees, expenses and carried interest, and a significant portion of this return is expected to be from cash flow. Fund VIII will attempt to capitalize on inefficiencies in real estate markets to acquire high quality operating assets at discounts to replacement cost. Such inefficiencies can result from (i) taking advantage of sellers' strategic or financial motivations, (ii) investing in markets or properties that are perceived as out of favor by other investors, (iii) leveraging DRA's industry relationships with both private and public joint venture partners to access deals, and (iv) utilizing DRA's financial experience and resources to exploit pricing inefficiencies in complex transactions.

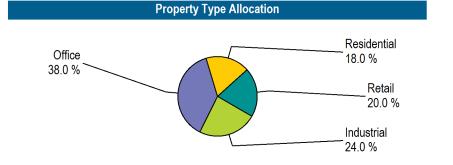
As of September 30, 2019, the number of investments is 44 and net IRR is 10.9%.



#### DRA Growth and Income Fund IX | As of December 31, 2019

		Account Information						
	Acc	ount Name		DRA Grov	vth and Income Fund	IX		
	Acc	ount Structure			Ot	her		
	Inve	estment Style			Act	ive		
	Ince	eption Date			1/0	1/17		
	Acc	ount Type			Real Est	ate		
	Ber	nchmark			NCREIF OD	CE		
	Uni	Verse						
		Non-Mark	etable Securities (	Overview by A	Account Type			
Account Type	Account	Vintage Year	Commitment	Cumulative Takedown	Cumulative Distributions	Value (RV)	Total Value (RV + Dist)	Unfunded Commitment
Real Estate	DRA Growth and Income Fund IX	2017	\$8,500,000	\$8,531,897	\$1,642,015	\$7,399,706	\$9,041,721	-\$31,897
	Total Account		\$8,500,000	\$8,531,897	\$1,642,015	\$7,399,706	\$9,041,721	-\$31,897





#### Geographic Diversification: North represents Midwest region

Investment Strategy

Fund VIII will invest in a diversified portfolio of office, retail, multi-family, industrial and other real-estate related properties and assets across the United States and its territories. The Company will seek to generate an attractive return to investors of 12-15%, net of fees, expenses and carried interest, and a significant portion of this return is expected to be from cash flow. Fund VIII will attempt to capitalize on inefficiencies in real estate markets to acquire high quality operating assets at discounts to replacement cost. Such inefficiencies can result from (i) taking advantage of sellers' strategic or financial motivations, (ii) investing in markets or properties that are perceived as out of favor by other investors, (iii) leveraging DRA's industry relationships with both private and public joint venture partners to access deals, and (iv) utilizing DRA's financial experience and resources to exploit pricing inefficiencies in complex transactions.

As of September 30, 2019, the number of investments is 54 and net IRR is 17.5%.



## Carlyle Realty Partners VIII, L.P. | As of December 31, 2019

Account Information						
Account Name	Carlyle Realty Partners VIII, L.P.					
Account Structure	Other					
Investment Style	Active					
Inception Date	9/01/17					
Account Type	Real Estate					
Benchmark						

Non-Marketable Securities Overview by Account Type								
Account Type	Account	Vintage Year	Commitment	Cumulative Takedown	Cumulative Distributions	Value (RV)	Total Value (RV + Dist)	Unfunded Commitment
Real Estate	Carlyle Realty Partners VIII, L.P.	2017	\$8,000,000	\$1,541,179	\$0	\$1,683,612	\$1,683,612	\$6,458,821
	Total Account		\$8,000,000	\$1,541,179	\$0	\$1,683,612	\$1,683,612	\$6,458,821

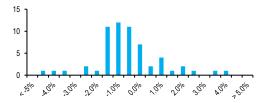
#### Account Information

Mandate:	Hedge Fund, Global Macro
Market Value:	\$6.8 M
Portfolio Manager:	Richard Haworth, Richard Hollington, Anthony Limbrick
Location:	London, United Kingdom
Inception Date:	2/1/2015
Account Type:	Limited Partnership
# of Investments:	241
Fee Schedule:	1.0% management fee; 20% performance fee
Liquidity Constraints:	Monthly with 30 days' notice
Strategy	

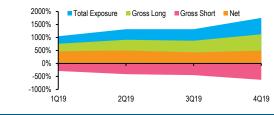
The Kohinoor Series Three Fund invests in 25% of the initial capital subscribed into the Kohinoor Core Fund and keeps the remaining in cash. The capital will be deployed in long dated, out of the money options across a broad spectrum of asset classes in various geographical locations. The team performs fundamental, bottom-up research to guide their capital allocation. There will be approximately 30-70 positions that will generally appreciate in value in a rising volatility environment.

Portfolio Performance Summary				
	1 YR (%)	3 YR (%)	5 YR (%)	Since 2/2015 (%)
36 South Kohinoor Series Three HFRI Macro (Total) Index	-9.9 6.2	-6.5 <i>1.3</i>	-6.4 <i>0.8</i>	-6.5 <i>0.3</i>





#### **Exposure History**



Geographic Exposure Net (%)	12/31/2019	9/30/2019	6/30/2019	3/31/2019
Developed Europe	245	242	274	253
Emerging Markets	0	0	0	0
Developed Asia	0	-8	-9	-11
North America	-15	-47	-33	62
Security Type Net Exposure (%)	12/31/2019	9/30/2019	6/30/2019	3/31/2019
Fixed Income (Developed)	3	6	8	8
Equity	-164	-188	-183	-50
Commodity	139	150	155	135
Fixed Income (Emerging)	0	0	0	0
Currency	122	86	111	51
Rates	392	370	407	324
Тор З М	lotional Posi	tions (%)		
EUR CMS Spread	99			
USD CMS Spread (Convexity)	99			
Gold Call Spread	78			
Тор З	Risk Positio	ons (%)		
Precious Metals	22			
AUD JPY	14			

10

EUR USD

#### Account Information

Mandate:	Hedge Fund, Global Macro
Market Value:	\$6.8 M
Portfolio Manager:	Irene Tse
Location:	New York, NY
Inception Date:	2/1/2015
Account Type:	Limited Partnership
# of Investments:	Not Provided
Fee Schedule:	1.0% management with sliding incentive fees: 10% if returns to 10%; 20% if returns exceed 10%; 30% if returns exceed 20%

Liquidity Constraints:

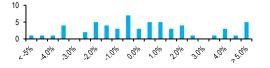
One year soft-lock up period (4% redemption fee). Quarterly with 90 days' notice thereafter

#### Strategy

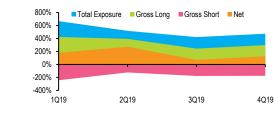
Tse Capital pursues a global macro strategy, utilizing a discretionary, top-down, thematic approach. They evaluate macro cycles and interlinks global themes through the identification of economic imbalances and the study of political and central bank transitions. Tse Capital makes predominantly directional investments in short, medium and long term opportunities, through a strategy of both active trading and investment in equities, currencies, commodities, credit and fixed income instruments, and other instruments related to any such asset classes, whether listed or "over the counter." Tse Capital may invest in and utilize currency spot and forward contracts, currency and interest rate futures contracts, swaps, "over the counter" and exchange-listed options and options on futures contracts. Tse Capital may also take positions in commodity and equity and fixed income indices, as well as related futures, swaps and options on these indices, as well as investment opportunities in markets that may arise from time to time.

Portfolio Performance Summary					
	1 YR	3 YR	5 YR	Since 2/2015	
	(%)	(%)	(%)	(%)	
Tse Capital Offshore Fund, Ltd.	6.4	2.0	2.3	2.4	
HFRI Macro (Total) Index	<i>6.2</i>	<i>1.3</i>	<i>0.8</i>	0.3	

**Return Distribution** 



#### **Exposure History**



Geographic Exposure Net (%)	12/31/2019	9/30/2019	6/30/2019	3/31/2019
Security Type Net Exposure (%)	12/31/2019	9/30/2019	6/30/2019	3/31/2019
Fixed Income (Developed)	7	12	58	61
Equity	-2	-18	51	56
Commodity	21	33	37	37
Currency	99	41	126	29
Тор	3 Notional Posi	tions (%)		
Short S&P	-71			
Long HSCEI	54			
Long Australian Dollar	35			

Top 3 Risk Positions (%)

Not Provided

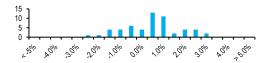
#### **Account Information**

Mandate:	Hedge Fund, Fixed Income
Market Value:	\$3.6 M
Portfolio Manager:	Jimmy Levin
Location:	New York, NY
Inception Date:	5/31/2015
Account Type:	Limited Partnership
# of Investments:	Not Provided
Fee Schedule:	1.25% management fee; 20% performance fee with a 6% hurdle rate
Liquidity Constraints:	Quarterly (with 90 days' advance notice)
Strategy <sup>1</sup>	

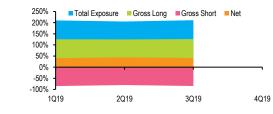
Sculptor Credit Opportunities investment team uses a bottom-up approach to security selection focusing on assets that support the potential investment. Selection is mostly comprised of U.S. and European corporate and structured credit markets. Sculptor CO will invest across all size spectrums believing capital deployed into dislocated or inefficient markets globally will generate strong risk adjusted returns.

Portfolio Performance Summary				
	1 YR (%)	3 YR (%)	5 YR (%)	Since 6/2015 (%)
Sculptor Credit Opportunities	1.1	5.7		5.6
BBgBarc US High Yield TR	14.3	6.4	6.1	5.8

#### **Return Distribution**



#### Exposure History<sup>2</sup>



Quality Net Exposure (%)	12/31/2019	9/30/2019	6/30/2019	3/31/2019
AAA to A	NA	2	2	3
BBB	NA	-6	-5	-5
BB	NA	4	5	4
В	NA	11	18	24
CCC and Below	NA	34	32	28
Non-Rated	NA	-6	-15	-21
In Default	NA	2	7	6
Sector Net Exposure (%)	12/31/2019	9/30/2019	6/30/2019	3/31/2019
Commercial Mortgage Backed	NA	6	7	8
Corporate Credit	NA	48	46	50
Developed Sovereign	NA	3	3	3
Mortgage Backed (non-agency)	NA	22	24	23
Other Securitized Assets	NA	21	20	22
U.S. Government (including agency)	NA	1	1	0
Security Type Net Exposure (%)	12/31/2019	9/30/2019	6/30/2019	3/31/2019
Fixed Income	NA	103	103	108
Equity	NA	10	11	10
Derivative	NA	-71	-70	-77
Cash	NA	0	0	0

<sup>1</sup> Och-Ziff Capital Management changed its name to Sculptor Capital Management on September 12, 2019.
 <sup>2</sup> Exposure data as of 12/31/2019 is not available.



## Total Fund Aggregate | As of December 31, 2019

Investment Expense Analysis As Of December 31, 2019					
Name	Fee Schedule	Market Value	Estimated Fee Value	Estimated Fee	
Total Domestic Equity		\$167,608,241			
Northern Trust Russell 1000 Index	0.03% of First 50.0 Mil, 0.02% Thereafter	\$142,251,232	\$33,450	0.02%	
Loomis Sayles Small Cap Value	0.70% of First 30.0 Mil, 0.60% of Next 20.0 Mil, 0.50% Thereafter	\$17,188,345	\$120,318	0.70%	
Northern Trust S&P 400 MidCap Index	0.03% of First 50.0 Mil, 0.02% Thereafter	\$8,168,664	\$2,451	0.03%	
Total International Equity		\$106,625,256			
Total International Developed Market Equity		\$70,255,120			
Northern Trust MSCI EAFE Index	0.06% of First 100.0 Mil, 0.03% Thereafter	\$30,556,786	\$18,334	0.06%	
WCM Focused Growth International	0.75% of Assets	\$21,624,994	\$162,187	0.75%	
Hexavest International Equity	0.60% of First 10.0 Mil, 0.50% of Next 30.0 Mil, 0.40% Thereafter	\$18,073,340	\$100,367	0.56%	
Total International Emerging Market Equity		\$36,370,136			
Dimensional Emerging Markets Value	0.57% of Assets	\$22,662,840	\$129,178	0.57%	
GQG Partners Emerging Markets Equity	0.65% of Assets	\$13,707,296	\$89,097	0.65%	
Total Fixed Income		\$159,522,181			
Total Investment Grade Bonds		\$91,799,244			
Northern Trust Barclays Aggregate Index	0.06% of First 100.0 Mil, 0.03% Thereafter	\$44,193,654	\$26,516	0.06%	
Short Duration Bonds		\$47,605,590			
Northern Trust 1-5 Year Credit Bond	0.10% of First 25.0 Mil, 0.06% of Next 75.0 Mil, 0.05% Thereafter	\$47,605,590	\$38,563	0.08%	



## Total Fund Aggregate | As of December 31, 2019

Name	Fee Schedule	Market Value	Estimated Fee Value	Estimated Fee
Total TIPS		\$21,495,412		
IR&M 1-10 Year Index	0.08% of Assets	\$21,495,412	\$17,196	0.08%
Total High Yield Bonds		\$21,671,018		
Sky Harbor Broad High Yield Market	0.30% of Assets	\$10,397,393	\$31,192	0.30%
Summit Partners Credit Fund II, L.P.	1.5% management fee; 20% carried interest	\$7,466,605		
Summit Partners Credit Fund III, L.P.		\$3,807,020		
Total Bank Loans		\$11,384,789		
Beach Point Leveraged Loan	0.50% of Assets	\$11,384,789	\$56,924	0.50%
Total Emerging Market Debt		\$13,171,718		
Stone Harbor Emerging Markets Local Currency Debt	0.89% of Assets	\$13,171,718	\$117,228	0.89%
Total Real Estate		\$44,450,746		
A.E.W Core Property Trust	1.10% of First 10.0 Mil, 1.00% of Next 15.0 Mil	\$29,137,057	\$260,000	0.89%
DRA Growth and Income Fund VIII	0.90% on gross cost during investment period; 0.60% thereafter; 8% preferred return and 20% carried interest	\$5,671,861		
DRA Growth and Income Fund IX	Annual asset mgmt. fee of 0.9% of the gross cost of investments during the Acquisition Period, dropping to 0.6% after the Acquisition Period, with gross cost reduced by leverage in excess of 65%	\$7,399,706		
INVESCO Mortgage Recovery Loans	1.0% management fee on invested capital; 8% preferred return; 20% carried interest	\$558,510		
Carlyle Realty Partners VIII, L.P.	1.50% of Assets	\$1,683,612	\$25,254	1.50%
Total Alternative Assets		\$47,788,733		
Total Natural Resources		\$8,697,687		
First Eagle Gold Fund	0.99% of Assets	\$8,697,687	\$86,107	0.99%



#### Total Fund Aggregate | As of December 31, 2019

Name	Fee Schedule	Market Value	Estimated Fee Value	Estimated Fee
Total Hedge Funds		\$17,268,580		
36 South Kohinoor Series Three	1.00% of Assets	\$6,757,170	\$67,572	1.00%
Tse Capital Offshore Fund, Ltd.	1.0% management with sliding incentive fees; 10% if returns to 10%; 20% if returns exceed 10%; 30% if returns exceed 20%	\$6,833,116		
Sculptor Credit Opportunities	1.00% of Assets	\$3,678,294	\$36,783	1.00%
Total Private Equity		\$21,822,467		
Ironsides Co-Investment Fund III, L.P.	0.75% management fee; 8% preferred return; 5% carried interest	\$5,718,834		
Ironsides Partnership Fund III, L.P.	0.75% management fee; 8% preferred return; 5% carried interest	\$5,136,376		
Strategic Investors Fund VIII L.P.	The management fee is based on the investor's commitment. 0.95% < \$15 million; 0.85% on commitments between \$15 million and \$30 million; 0.75% > \$30 million. Blended fee of 86bps over 12 years	\$7,668,649		
Ironsides Direct Investment Fund V, L.P.		\$3,207,848		
Arboretum Ventures V, L.P.		\$90,760		
Total Cash		\$11,383,064		
Northern Trust Cash Account		\$11,383,064		
Total		\$537,378,221	\$1,418,719	0.26%

## **Retirement System**

- Fiscal Year begins July 1.
- From 3Q 2011 through 2Q17, the Policy Benchmark was comprised of 31% Russell 3000, 12% MSCI EAFE, 6% MSCI EM, 3% Russell 3000 + 3% (1 qtr lagged), 19% Barclays Aggregate, 8% Barclays U.S. TIPS, 3% Barclays High Yield, 2% CSFB Leveraged Loan, 2% JPM GBI-EM Global Diversified, 9% NCREIF ODCE (equal weighted), 3% DJ-UBS Commodity, and 2% HFRI Fund Weighted Composite; from 3Q17 through present, it is comprised of 31% Russell 3000, 12% MSCI EAFE, 6% MSCI EM, 3% Russell 3000 + 3% (1 qtr lagged), 19% Barclays Aggregate, 8% Barclays U.S. TIPS, 3% Barclays High Yield, 2% CSFB Leveraged Loan, 2% JPM GBI-EM Global Diversified, 9% NCREIF ODCE (equal weighted), 3% S&P Global Natural Resources, and 2% HFRI Fund Weighted Composite
- Prior to July 2011, Investment Grade Bonds included an allocation to High Yield.
- Market value for Summit Partners Credit Fund II & III is as of September 30, 2019, adjusted for subsequent cash flows.
- Market values for AEW Core Property Trust are as of September 30, 2019.
- Market value for DRA Growth and Income Fund VIII & IX and Invesco Recovery Loan are as of September 30, 2019, adjusted for subsequent cash flows.
- Market values for Private Equity are as of September 30, 2019, adjusted for subsequent cash flows.

### VEBA

## **VEBA Summary**



Allocation vs. Targets and Policy													
	Current Balance	Current Allocation	Policy	Policy Range									
US Equity	\$74,286,341	38%	33%	27% - 39%									
Developed Market Equity	\$23,734,832	12%	12%	9% - 15%									
Emerging Market Equity	\$12,197,900	6%	7%	0% - 10%									
Investment Grade Bonds	\$27,242,734	14%	12%	8% - 17%									
TIPS	\$7,086,210	4%	7%	0% - 9%									
Emerging Market Bonds	\$3,813,104	2%	3%	0% - 5%									
High Yield Bonds	\$11,970,959	6%	6%	4% - 8%									
Bank Loans	\$5,908,064	3%	4%	0% - 6%									
Private Equity	\$3,009,148	2%	3%	0% - 5%									
Real Estate	\$18,423,101	9%	10%	2% - 12%									
Natural Resources	\$2,485,119	1%	3%	0% - 5%									
Cash	\$7,801,124	4%	0%	0% - 5%									
Total	\$197,958,638	100%	100%										

#### Total Fund Aggregate | As of December 31, 2019

Asset Class Performance Summary													
	Market Value (\$)	% of Portfolio	QTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)	Inception II (%)	nception Date		
Total Fund Aggregate	197,958,638	100.0	5.4	6.4	20.2	9.6	7.2	8.0	9.0	6.4	Oct-99		
Total Fund Aggregate (Net of Fees)			5.4	6.3	20.0	9.4	6.9	7.7	8.7				
Policy Benchmark			5.7	6.3	18.7	9.8	7.5	8.2	8.7	6.1	Oct-99		
60% MSCI ACWI & 40% Barclays Agg			5.4	6.4	19.4	9.2	6.4	7.0	7.0	5.5	Oct-99		
Total Domestic Equity	74,286,341	37.5	8.7	10.0	30.6	13.7	10.5	13.5	14.0	7.6	Oct-99		
Russell 3000			9.1	10.4	31.0	14.6	11.2	14.4	13.4	7.1	Oct-99		
Total International Developed Market Equity	23,734,832	12.0	8.7	8.1	26.9	13.8	8.1	8.2	7.8	9.9	Jul-09		
MSCI EAFE			8.2	7.0	22.0	9.6	5.7	6.3	5.5	7.3	Jul-09		
Total International Emerging Market Equity	12,197,900	6.2	7.9	2.3	16.6	11.3	6.3	3.8		4.4	Feb-12		
MSCI Emerging Markets			11.8	7.1	18.4	11.6	5.6	3.3	3.7	3.7	Feb-12		
Total Investment Grade Bonds	27,242,734	13.8	0.3	2.4	8.4	3.8	2.9	2.7	4.1	5.1	Oct-00		
BBgBarc US Aggregate TR			0.2	2.5	8.7	4.0	3.0	2.7	3.7	4.9	Oct-00		
BBgBarc US Universal TR			0.5	2.6	9.3	4.3	3.4	3.0	4.1	5.1	Oct-00		
Total TIPS	7,086,210	3.6	1.0	1.6	7.0	2.8	2.4			1.8	Nov-13		
BBgBarc US TIPS TR			0.8	2.1	8.4	3.3	2.6	1.1	3.4	2.3	Nov-13		
BBgBarc US TIPS 1-10 Yr TR			1.0	1.6	6.9	2.8	2.4	1.0	2.6	1.8	Nov-13		
Total High Yield Bonds*	11,970,959	6.0	2.2	4.4	13.7	6.2	6.0	5.8	7.1	8.3	Jul-09		
BBgBarc US High Yield TR	, ,		2.6	4.0	14.3	6.4	6.1	5.8	7.6	9.2	Jul-09		

\* One or more accounts have been exlcuded from the composite for the purposes of performance calculations and market value.

#### **Fiscal** % of QTD Market Value 3 Yrs 5 Yrs 7 Yrs 10 Yrs Inception Inception 1Yr YTD (%) (%) (%) (%) (\$) Portfolio (%) (%) (%) Date (%) **Total Bank Loans** 5,908,064 3.0 1.8 3.3 9.2 4.3 4.3 4.5 5.1 Apr-12 Credit Suisse Leveraged Loans 1.7 2.6 8.2 4.5 4.5 4.4 5.2 4.7 Apr-12 Total Emerging Markets Debt (Net of Fees) 3,813,104 1.9 5.2 3.8 13.1 5.6 1.7 -2.0 -0.2 Jun-12 ---JP Morgan GBI EM Global Diversified TR USD 5.2 4.4 13.5 7.0 2.8 -0.2 2.7 1.7 Jun-12 **Total Real Estate** 18,423,101 9.3 0.9 5.1 14.1 8.6 8.0 8.4 11.7 9.0 Mar-05 NCREIF ODCE Equal Weighted 1.5 2.9 6.1 7.4 9.3 10.3 11.5 7.7 Mar-05 MSCI US REIT -1.1 6.2 24.3 6.7 5.7 8.0 10.6 Mar-05 \_\_\_ Total Natural Resources (Net of Fees) 2,485,119 1.3 9.9 15.9 39.0 6.8 Jul-17 ------------FTSE Gold Mines PR USD 13.3 41.2 -5.3 -4.6 11.9 Jul-17 8.6 11.0 11.4 S&P Global Natural Resources Index TR USD 9.5 2.9 17.2 7.9 4.8 21 1.6 8.7 Jul-17 **Total Private Equity** 1.5 3,009,148 **Total Cash** 7,801,124 3.9

#### Total Fund Aggregate | As of December 31, 2019

\*One or more accounts have been excluded from the composite for the purposes of performance calculations and market value.

Trailing Performance												
	Market Value (\$)	% of Portfolio	% of Sector	QTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)	Inceptio n (%)	Inceptio n Date
Total Fund Aggregate	197,958,638	100.0		5.4	6.4	20.2	9.6	7.2	8.0	9.0	6.4	Oct-99
Total Fund Aggregate (Net of Fees)				5.4	6.3	20.0	9.4	6.9	7.7	8.7		
Policy Benchmark				5.7	6.3	18.7	9.8	7.5	8.2	8.7	6.1	Oct-99
60% MSCI ACWI & 40% Barclays Agg				5.4	6.4	19.4	<i>9.2</i>	6.4	7.0	7.0	5.5	Oct-99
Total Domestic Equity	74,286,341	37.5	37.5	8.7	10.0	30.6	13.7	10.5	13.5	14.0	7.6	Oct-99
Russell 3000				9.1	10.4	31.0	14.6	11.2	14.4	13.4	7.1	Oct-99
Northern Trust Russell 1000 Index	63,235,745	31.9	85.1	9.0	10.6	31.4	15.0	11.4	14.6	-	14.2	Feb-12
Northern Trust Russell 1000 Index (Net of Fees)				9.0	10.6	31.4	15.0	11.4	14.5		14.2	
Russell 1000				9.0	10.6	31.4	15.0	11.5	14.6	13.5	14.3	Feb-12
eV US Large Cap Core Equity Gross Median				8.2	10.1	29.5	14.5	11.0	14.5	13.4	14.0	Feb-12
eV US Large Cap Core Equity Gross Rank				34	36	31	41	35	45	-	43	Feb-12

	Market Value (\$)	% of Portfolio		QTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)	Inceptio n (%)	Inceptio n Date
RhumbLine S&P 400 Index	7,439,957	3.8	10.0	7.0	7.0	26.2	9.3	9.2	12.5		13.3	Feb-10
RhumbLine S&P 400 Index (Net of Fees)				7.0	6.9	26.1	9.3	9.2	12.5		13.3	
S&P 400 MidCap				7.1	7.0	26.2	9.3	9.0	12.3	12.7	13.2	Feb-10
eV US Mid Cap Equity Gross Median				7.3	7.6	30.8	12.5	9.9	13.5	13.4	14.0	Feb-10
eV US Mid Cap Equity Gross Rank				54	64	79	72	59	68		66	Feb-10
Loomis Sayles Small Cap Value Equity	3,610,640	1.8	4.9	5.6	5.7	25.3					25.3	Dec-18
Loomis Sayles Small Cap Value Equity (Net of Fees)				5.5	5.3	24.4				-	24.4	
Russell 2000 Value				8.5	7.9	22.4	4.8	7.0	10.1	10.6	22.4	Dec-18
Russell 2000				9.9	7.3	25.5	8.6	<i>8.2</i>	11.6	11.8	25.5	Dec-18
eV US Small Cap Value Equity Gross Median				7.9	7.6	24.4	5.6	7.5	11.4	12.1	24.4	Dec-18
eV US Small Cap Value Equity Gross Rank				88	80	44				-	44	Dec-18

	Market Value (\$)	% of Portfolio	% of Sector	QTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)	Inceptio n (%)	Inceptio n Date
Total International Developed Market Equity	23,734,832	12.0	12.0	8.7	8.1	26.9	13.8	8.1	8.2	7.8	9.9	Jul-09
MSCI EAFE				8.2	7.0	22.0	9.6	5.7	6.3	5.5	7.3	Jul-09
WCM Focused Growth International	12,729,160	6.4	53.6	10.0	9.7	36.7				-	14.2	Aug-17
WCM Focused Growth International (Net of Fees)				9.8	9.3	35.7				-	13.2	
MSCI ACWI ex USA				8.9	7.0	21.5	9.9	5.5	5.4	5.0	4.8	Aug-17
eV EAFE Core Equity Gross Median				9.2	7.9	23.4	10.1	7.1	7.8	7.6	4.9	Aug-17
eV EAFE Core Equity Gross Rank				38	29	1				-	1	Aug-17
Hexavest International Equity	11,005,672	5.6	46.4	7.3	6.3	17.0					3.1	Aug-17
Hexavest International Equity (Net of Fees)				7.1	6.0	16.4				-	2.6	
MSCI EAFE				8.2	7.0	22.0	9.6	5.7	6.3	5.5	4.9	Aug-17
eV EAFE Core Equity Gross Median				9.2	7.9	23.4	10.1	7.1	7.8	7.6	4.9	Aug-17
eV EAFE Core Equity Gross Rank				89	77	95				-	78	Aug-17

	Market Value (\$)	% of Portfolio	% of Sector	QTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)	Inceptio n (%)	Inceptio n Date
Total International Emerging Market Equity	12,197,900	6.2	6.2	7.9	2.3	16.6	11.3	6.3	3.8	-	4.4	Feb-12
MSCI Emerging Markets				11.8	7.1	18.4	11.6	5.6	3.3	3.7	3.7	Feb-12
DFA Emerging Markets Value Fund (Net of Fees)	5,531,312	2.8	45.3	9.7	2.0	9.6	8.9	4.7	2.1	-	2.5	Feb-12
MSCI Emerging Markets				11.8	7.1	18.4	11.6	5.6	3.3	3.7	3.7	Feb-12
eV Emg Mkts Equity Net Median				11.4	7.0	19.3	10.7	5.5	3.9	4.4	4.5	Feb-12
eV Emg Mkts Equity Net Rank				76	93	96	78	67	91	-	96	Feb-12
GQG Partners Emerging Markets Equity	6,666,589	3.4	54.7	6.5	2.4	23.1				-	9.2	Jul-17
GQG Partners Emerging Markets Equity (Net of Fees)				6.4	2.2	22.5					8.7	
MSCI Emerging Markets				11.8	7.1	18.4	11.6	5.6	3.3	3.7	6.6	Jul-17
eV Emg Mkts Equity Gross Median				11.5	7.1	19.6	11.8	6.4	4.7	5.3	6.7	Jul-17
eV Emg Mkts Equity Gross Rank				95	92	32				-	20	Jul-17

	Market Value (\$)	% of Portfolio	% of Sector	QTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)	Inceptio n (%)	Inceptio n Date
Total Investment Grade Bonds	27,242,734	13.8	13.8	0.3	2.4	8.4	3.8	2.9	2.7	4.1	5.1	Oct-00
BBgBarc US Aggregate TR				0.2	2.5	8.7	4.0	3.0	2.7	3.7	4.9	Oct-00
BBgBarc US Universal TR				0.5	2.6	9.3	4.3	3.4	3.0	4.1	5.1	Oct-00
Northern Trust 1-5 Year Credit Bond Index Fund	4,400,611	2.2	16.2	0.8	1.9	6.4	3.2			-	2.8	Dec-15
Northern Trust 1-5 Year Credit Bond Index Fund (Net of Fees)				0.8	1.9	6.3	3.1			-	2.7	
BBgBarc US Credit 1-5 Yr TR				0.8	2.0	6.6	3.3	2.7	2.4	3.1	3.0	Dec-15
eV US Short Duration Fixed Inc Gross Median				0.6	1.5	4.6	2.6	2.1	1.8	2.2	2.3	Dec-15
eV US Short Duration Fixed Inc Gross Rank				17	7	5	13				14	Dec-15
Northern Trust Barclays Aggregate Bond Index	22,842,124	11.5	83.8	0.2	2.4	8.8	4.0	2.9	2.6	3.7	5.0	Oct-99
Northern Trust Barclays Aggregate Bond Index (Net of Fees)				0.1	2.4	8.7	3.9	2.9	2.6	3.7	4.9	
BBgBarc US Aggregate TR				0.2	2.5	8.7	4.0	3.0	2.7	3.7	5.0	Oct-99
eV US Core Fixed Inc Gross Median				0.2	2.6	9.2	4.4	3.4	3.1	4.3	5.4	Oct-99
eV US Core Fixed Inc Gross Rank				58	69	76	88	94	92	92	89	Oct-99

### Total Fund Aggregate | As of December 31, 2019

	Market Value (\$)	% of Portfolio	% of Sector	QTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)	Inceptio n (%)	Inceptio n Date
Total TIPS	7,086,210	3.6	3.6	1.0	1.6	7.0	2.8	2.4			1.8	Nov-13
BBgBarc US TIPS TR				0.8	2.1	8.4	3.3	2.6	1.1	3.4	2.3	Nov-13
BBgBarc US TIPS 1-10 Yr TR				1.0	1.6	6.9	2.8	2.4	1.0	2.6	1.8	Nov-13
IR&M 1-10 Year Index	7,086,210	3.6	100.0	1.0	1.6	7.0	2.8	2.4			1.8	Nov-13
IR&M 1-10 Year Index (Net of Fees)				1.0	1.6	6.9	2.7	2.3			1.7	
BBgBarc US TIPS 1-10 Yr TR				1.0	1.6	6.9	2.8	2.4	1.0	2.6	1.8	Nov-13
eV US TIPS / Inflation Fixed Inc Gross Median				0.8	2.2	8.5	3.4	2.7	1.2	3.5	2.4	Nov-13
eV US TIPS / Inflation Fixed Inc Gross Rank				39	87	81	96	86			93	Nov-13
Total High Yield Bonds*	11,970,959	6.0	6.0	2.2	4.4	13.7	6.2	6.0	5.8	7.1	8.3	Jul-09
BBgBarc US High Yield TR				2.6	4.0	14.3	6.4	6.1	5.8	7.6	9.2	Jul-09
Sky Harbor High Yield	9,046,804	4.6	75.6	2.2	4.4	13.7	6.2	6.0	5.8	-	5.9	Dec-12
Sky Harbor High Yield (Net of Fees)				2.2	4.2	13.4	5.9	5.6	5.3	-	5.4	
BBgBarc US High Yield TR				2.6	4.0	14.3	6.4	6.1	5.8	7.6	5.9	Dec-12
eV US High Yield Fixed Inc Gross Median				2.5	4.0	14.3	6.4	6.0	5.8	7.7	6.0	Dec-12
eV US High Yield Fixed Inc Gross Rank				67	38	61	65	53	53		57	Dec-12

Note: Total High Yield Bonds performance excludes the performance from Summit Credit Fund II and Summit Credit Fund III.

	Market Value (\$)	% of Portfolio	% of Sector	QTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)	Inceptio n (%)	Inceptio n Date
Summit Credit Fund II, L.P.	1,866,651	0.9	15.6									
Summit Partners Credit Fund III, L.P.	1,057,504	0.5	8.8									
Total Bank Loans	5,908,064	3.0	3.0	1.8	3.3	9.2	4.3	4.3	4.5		5.1	Apr-12
Credit Suisse Leveraged Loans				1.7	2.6	8.2	4.5	4.5	4.4	5.2	4.7	Apr-12
Beach Point Leveraged Loan	5,908,064	3.0	100.0	1.8	3.3	9.2	4.3	4.3	4.5		5.1	Apr-12
Beach Point Leveraged Loan (Net of Fees)				1.6	3.0	8.6	3.6	3.6	3.8		4.4	
Credit Suisse Leveraged Loans				1.7	2.6	8.2	4.5	4.5	4.4	5.2	4.7	Apr-12
eV US Float-Rate Bank Loan Fixed Inc Gross Median				1.7	2.9	8.7	4.5	4.7	4.5	5.3	4.8	Apr-12
eV US Float-Rate Bank Loan Fixed Inc Gross Rank				45	29	32	71	82	51		25	Apr-12

	Market Value (\$)	% of Portfolio	% of Sector	QTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)	Inceptio n (%)	Inceptio n Date
Total Emerging Markets Debt (Net of Fees)	3,813,104	1.9	1.9	5.2	3.8	13.1	5.6	1.7	-2.0	-	-0.2	Jun-12
JP Morgan GBI EM Global Diversified TR USD				5.2	4.4	13.5	7.0	2.8	-0.2	2.7	1.7	Jun-12
Stone Harbor Emerging Markets Local Currency Debt (Net of Fees)	3,813,104	1.9	100.0	5.2	3.8	13.1	5.6	1.7	-2.0		-0.2	Jun-12
JP Morgan GBI EM Global Diversified TR USD				5.2	4.4	13.5	7.0	2.8	-0.2	2.7	1.7	Jun-12
eV Emg Mkts Fixed Inc - Local Currency Net Median				5.4	4.1	13.3	6.6	2.2	-0.5	2.0	1.2	Jun-12
eV Emg Mkts Fixed Inc - Local Currency Net Rank				64	67	54	74	76	94		98	Jun-12
Total Real Estate	18,423,101	9.3	9.3	0.9	5.1	14.1	8.6	8.0	8.4	11.7	9.0	Mar-05
NCREIF ODCE Equal Weighted				1.5	2.9	6.1	7.4	9.3	10.3	11.5	7.7	Mar-05
MSCI US REIT				-1.1	6.2	24.3	6.7	5.7	8.0	10.6		Mar-05
Vanguard REIT Index (Net of Fees)	6,913,129	3.5	37.5	0.6	8.1	28.9	8.4	7.2		-	9.3	Mar-14
Spliced Vanguard REIT Benchmark				0.6	8.1	29.0	8.5	7.3	9.6	12.1	9.5	Mar-14
eV US REIT Net Median				0.4	7.9	27.9	8.6	7.2	9.5	12.1	9.5	Mar-14
eV US REIT Net Rank				30	43	40	54	55		-	60	Mar-14

	Market Value (\$)	% of Portfolio	% of Sector	QTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)	Inceptio n (%)	Inceptio n Date
A.E.W Core Property Trust (Net of Fees)	7,284,264	3.7	39.5	0.9	2.4	5.2	6.4	7.8			8.6	Jul-13
NCREIF ODCE (net)				1.3	2.4	4.4	6.1	8.0	9.2	10.4	8.9	Jul-13
DRA Growth and Income Fund VIII	1,668,196	0.8	9.1									
DRA Growth and Income Fund IX	2,136,609	1.1	11.6									
Carlyle Realty Partners VIII, L.P.	420,903	0.2	2.3									
Total Natural Resources (Net of Fees)	2,485,119	1.3	1.3	9.9	15.9	39.0					6.8	Jul-17
FTSE Gold Mines PR USD				8.6	13.3	41.2	11.0	11.4	-5.3	-4.6	11.9	Jul-17
S&P Global Natural Resources Index TR USD				9.5	2.9	17.2	7.9	4.8	2.1	1.6	8.7	Jul-17
First Eagle Gold Fund (Net of Fees)	2,485,119	1.3	100.0	9.9	15.9	39.0				-	6.8	Jul-17
FTSE Gold Mines PR USD				8.6	13.3	41.2	11.0	11.4	-5.3	-4.6	11.9	Jul-17
<i>S&amp;P Global LargeMidCap Commodity and Resources GR USD</i>				8.1	1.8	16.6	8.0	3.8	0.9	1.7	10.0	Jul-17
eV Global Natural Resources Equity Net Median										-		Jul-17
eV Global Natural Resources Equity Net Rank										-		Jul-17

#### Total Fund Aggregate | As of December 31, 2019

	Market Value (\$)	% of Portfolio	% of Sector	QTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)	Inceptio n (%)	Inceptio n Date
Total Private Equity	3,009,148	1.5	1.5									
Strategic Investors Fund VIII	1,917,175	1.0	63.7									
Ironsides Direct Investment Fund V, L.P.	1,069,283	0.5	35.5									
Arboretum Ventures V, L.P.	22,690	0.0	0.8									
Total Cash	7,801,124	3.9	3.9									
NT Cash	7,801,124	3.9	100.0									

\*One or more accounts have been excluded from the composite for the purposes of performance calculations and market value.

	Calendar Y	ear Per	forman	ce						
	2019 (%)	2018 (%)	2017 (%)	2016 (%)	2015 (%)	2014 (%)	2013 (%)	2012 (%)	2011 (%)	2010 (%)
Total Fund Aggregate	20.2	-4.6	14.9	9.0	-1.5	5.1	15.2	12.6	2.7	19.6
Total Fund Aggregate (Net of Fees)	20.0	-4.8	14.6	8.8	-1.8	4.8	14.8	12.3	2.3	19.2
Policy Benchmark	18.7	-3.9	16.2	9.5	-0.8	5.7	14.2	13.0	1.6	15.7
60% MSCI ACWI & 40% Barclays Agg	19.4	-5.5	15.4	5.9	-1.0	5.0	12.3	11.5	-1.1	10.8
Total Domestic Equity	30.6	-6.6	20.6	14.2	-2.0	9.5	34.6	17.7	2.2	27.4
Russell 3000	31.0	-5.2	21.1	12.7	0.5	12.6	33.6	16.4	1.0	16.9
Northern Trust Russell 1000 Index	31.4	-4.8	21.7	12.1	0.7	13.2	33.1			
Northern Trust Russell 1000 Index (Net of Fees)	31.4	-4.8	21.6	12.1	0.7	13.2	33.1			
Russell 1000	31.4	-4.8	21.7	12.1	0.9	13.2	33.1	16.4	1.5	16.1
RhumbLine S&P 400 Index	26.2	-11.0	16.3	20.6	-1.3	9.8	33.9	17.9	-1.7	
RhumbLine S&P 400 Index (Net of Fees)	26.1	-11.1	16.3	20.5	-1.4	9.8	33.8	17.8	-1.7	
S&P 400 MidCap	26.2	-11.1	16.2	20.7	-2.2	9.8	33.5	17.9	-1.7	26.6
Loomis Sayles Small Cap Value Equity	25.3									
Loomis Sayles Small Cap Value Equity (Net of Fees)	24.4									
Russell 2000 Value	22.4	-12.9	7.8	31.7	-7.5	4.2	34.5	18.0	-5.5	24.5

	2019 (%)	2018 (%)	2017 (%)	2016 (%)	2015 (%)	2014 (%)	2013 (%)	2012 (%)	2011 (%)	2010 (%)
Total International Developed Market Equity	26.9	-8.7	27.1	1.2	-0.7	-4.8	23.6	17.0	-10.8	17.0
MSCI EAFE	22.0	-13.8	25.0	1.0	-0.8	-4.9	22.8	17.3	-12.1	7.8
WCM Focused Growth International	36.7	-6.5								
WCM Focused Growth International (Net of Fees)	35.7	-7.4								
MSCI ACWI ex USA	21.5	-14.2	27.2	4.5	-5.7	-3.9	15.3	16.8	-13.7	11.2
Hexavest International Equity	17.0	-10.9								
Hexavest International Equity (Net of Fees)	16.4	-11.3								
MSCI EAFE	22.0	-13.8	25.0	1.0	-0.8	-4.9	22.8	17.3	-12.1	7.8
Total International Emerging Market Equity	16.6	-12.8	35.7	14.5	-14.1	-0.1	-4.4	8.3		
MSCI Emerging Markets	18.4	-14.6	37.3	11.2	-14.9	-2.2	-2.6	18.2	-18.4	18.9
DFA Emerging Markets Value Fund (Net of Fees)	9.6	-11.9	33.8	19.8	-18.8	-4.4	-3.8			
MSCI Emerging Markets	18.4	-14.6	37.3	11.2	-14.9	-2.2	-2.6	18.2	-18.4	18.9
GQG Partners Emerging Markets Equity	23.1	-13.6								
GQG Partners Emerging Markets Equity (Net of Fees)	22.5	-14.1								
MSCI Emerging Markets	18.4	-14.6	37.3	11.2	-14.9	-2.2	-2.6	18.2	-18.4	18.9

	2019 (%)	2018 (%)	2017 (%)	2016 (%)	2015 (%)	2014 (%)	2013 (%)	2012 (%)	2011 (%)	2010 (%)
Total Investment Grade Bonds	8.4	0.1	3.1	2.6	0.3	6.4	-1.6	5.8	8.1	8.2
BBgBarc US Aggregate TR	8.7	0.0	3.5	2.6	0.5	6.0	-2.0	4.2	7.8	6.5
Northern Trust 1-5 Year Credit Bond Index Fund	6.4	1.1	2.1	2.4						
Northern Trust 1-5 Year Credit Bond Index Fund (Net of Fees)	6.3	1.0	2.0	2.3						
BBgBarc US Credit 1-5 Yr TR	6.6	1.1	2.3	2.6	1.1	1.9	1.2	5.5	3.0	5.4
Northern Trust Barclays Aggregate Bond Index	8.8	0.0	3.3	2.5	0.3	6.1	-2.2	4.4	7.8	6.8
Northern Trust Barclays Aggregate Bond Index (Net of Fees)	8.7	-0.1	3.2	2.5	0.3	6.0	-2.3	4.3	7.8	6.7
BBgBarc US Aggregate TR	8.7	0.0	3.5	2.6	0.5	6.0	-2.0	4.2	7.8	6.5
Total TIPS	7.0	-0.3	1.9	4.1	-0.4	0.9				
BBgBarc US TIPS TR	8.4	-1.3	3.0	4.7	-1.4	3.6	-8.6	7.0	13.6	6.3
IR&M 1-10 Year Index	7.0	-0.3	1.9	4.1	-0.4	0.9				
IR&M 1-10 Year Index (Net of Fees)	6.9	-0.3	1.8	3.9	-0.5	0.8				
BBgBarc US TIPS 1-10 Yr TR	6.9	-0.3	1.9	4.0	-0.5	0.9	-5.6	5.0	8.9	5.2



#### Total Fund Aggregate | As of December 31, 2019

	2019 (%)	2018 (%)	2017 (%)	2016 (%)	2015 (%)	2014 (%)	2013 (%)	2012 (%)	2011 (%)	2010 (%)
Total High Yield Bonds*	13.7	-2.4	7.9	15.7	-3.4	1.4	9.2	12.4	5.7	12.3
BBgBarc US High Yield TR	14.3	-2.1	7.5	17.1	-4.5	2.5	7.4	15.8	5.0	15.1
Sky Harbor High Yield	13.7	-2.4	7.9	15.7	-3.4	1.4	9.2			
Sky Harbor High Yield (Net of Fees)	13.4	-2.7	7.6	15.1	-3.9	0.8	8.6			
BBgBarc US High Yield TR	14.3	-2.1	7.5	17.1	-4.5	2.5	7.4	15.8	5.0	15.1
Summit Credit Fund II, L.P.										
Summit Partners Credit Fund III, L.P.										
Total Bank Loans	9.2	0.5	3.3	5.9	2.8	2.7	7.1			
Credit Suisse Leveraged Loans	8.2	1.1	4.2	9.9	-0.4	2.1	6.2	9.4	1.8	10.0
Beach Point Leveraged Loan	9.2	0.5	3.3	5.9	2.7	2.7	7.1			
Beach Point Leveraged Loan (Net of Fees)	8.6	-0.1	2.5	5.2	2.1	2.0	6.4			
Credit Suisse Leveraged Loans	8.2	1.1	4.2	9.9	-0.4	2.1	6.2	9.4	1.8	10.0
Total Emerging Markets Debt (Net of Fees)	13.1	-9.8	15.4	9.0	-15.2	-8.5	-12.6			
JP Morgan GBI EM Global Diversified TR USD	13.5	-6.2	15.2	9.9	-14.9	-5.7	-9.0	16.8	-1.8	15.1
Stone Harbor Emerging Markets Local Currency Debt (Net of Fees)	13.1	-9.8	15.4	9.0	-15.2	-8.5	-12.6			
JP Morgan GBI EM Global Diversified TR USD	13.5	-6.2	<i>15.2</i>	9.9	-14.9	-5.7	-9.0	16.8	-1.8	15.1

Note: Total High Yield Bonds performance excludes the performance from Summit Credit Fund II and Summit Credit Fund III.

# MEKETA

### City of Ann Arbor Retiree Health Care Benefit Plan & Trust (VEBA)

	2019 (%)	2018 (%)	2017 (%)	2016 (%)	2015 (%)	2014 (%)	2013 (%)	2012 (%)	2011 (%)	2010 (%)
Total Real Estate	14.1	3.7	8.1	6.9	7.4	15.4	4.1	20.1	10.2	29.7
NCREIF ODCE Equal Weighted	6.1	8.3	7.8	9.3	15.2	12.4	13.4	11.0	16.0	16.1
Vanguard REIT Index (Net of Fees)	28.9	-5.9	4.9	8.5	2.4					
Spliced Vanguard REIT Benchmark	29.0	-5.9	5.1	8.6	2.5	30.4	2.5	17.8	8.7	28.5
A.E.W Core Property Trust (Net of Fees)	5.2	6.8	7.1	7.6	12.4	10.4				
NCREIF ODCE (net)	4.4	7.4	6.7	7.8	14.0	11.5	12.9	9.8	15.0	15.3
DRA Growth and Income Fund VIII										
DRA Growth and Income Fund IX										
Carlyle Realty Partners VIII, L.P.										
Total Natural Resources (Net of Fees)	39.0	-15.7								
FTSE Gold Mines PR USD	41.2	-11.3	9.1	59.6	-21.4	-15.2	-53.2	-15.4	-15.9	29.0
First Eagle Gold Fund (Net of Fees)	39.0	-15.7								
FTSE Gold Mines PR USD	41.2	-11.3	9.1	59.6	-21.4	-15.2	-53.2	-15.4	-15.9	29.0



#### Total Fund Aggregate | As of December 31, 2019

	2019 (%)	2018 (%)	2017 (%)	2016 (%)	2015 (%)	2014 (%)	2013 (%)	2012 (%)	2011 (%)	2010 (%)
Total Private Equity										
Strategic Investors Fund VIII										
Ironsides Direct Investment Fund V, L.P.										
Arboretum Ventures V, L.P.										
Total Cash										
NT Cash										

\*One or more accounts have been excluded from the composite for the purposes of performance calculations and market value.

	Fiscal Ye	ar Perfo	ormance	9						
	Fiscal	Fiscal	Fiscal	Fiscal	Fiscal	Fiscal	Fiscal	Fiscal	Fiscal	Fiscal
	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
Total Fund Aggregate	7.3	7.4	12.4	0.6	1.6	15.3	12.4	1.6	29.1	16.7
Total Fund Aggregate (Net of Fees)	7.1	7.2	12.2	0.4	1.3	15.0	12.0	1.3	28.7	16.4
Policy Benchmark	6.7	8.7	12.6	1.1	2.3	16.3	10.7	2.3	24.3	16.3
60% MSCI ACWI & 40% Barclays Agg	7.0	6.2	10.8	0.3	1.3	15.3	9.4	-0.5	19.3	11.3
Total Domestic Equity	8.2	13.7	18.9	-0.3	4.8	26.1	24.0	2.5	42.6	20.5
Russell 3000	9.0	14.8	18.5	2.1	7.3	25.2	21.5	3.8	32.4	15.7
Northern Trust Russell 1000 Index	10.1	14.5	18.0	2.7	7.4	25.3	21.2			
Northern Trust Russell 1000 Index (Net of Fees)	10.0	14.5	18.0	2.7	7.3	25.3	21.2			
Russell 1000	10.0	14.5	18.0	2.9	7.4	25.4	21.2	4.4	31.9	15.2
RhumbLine S&P 400 Index	1.4	13.4	18.7	1.7	6.8	25.3	25.5	-2.2	39.2	
RhumbLine S&P 400 Index (Net of Fees)	1.4	13.4	18.6	1.7	6.8	25.2	25.4	-2.2	39.2	
S&P 400 MidCap	1.4	13.5	18.6	1.3	6.4	25.2	25.2	-2.3	39.4	24.9
Loomis Sayles Small Cap Value Equity										
Loomis Sayles Small Cap Value Equity (Net of Fees)										
Russell 2000 Value	-6.2	13.1	24.9	-2.6	0.8	22.5	24.8	-1.4	31.4	25.1

	Fiscal 2019 (%)	Fiscal 2018 (%)	Fiscal 2017 (%)	Fiscal 2016 (%)	Fiscal 2015 (%)	Fiscal 2014 (%)	Fiscal 2013 (%)	Fiscal 2012 (%)	Fiscal 2011 (%)	Fiscal 2010 (%)
Total International Developed Market Equity	7.6	8.2	26.4	-11.8	-1.8	20.9	18.6	-14.1	41.4	12.4
MSCI EAFE	1.1	6.8	20.3	-10.2	-4.2	23.6	18.6	-13.8	30.4	5.9
WCM Focused Growth International	13.1									
WCM Focused Growth International (Net of Fees)	12.2									
MSCI ACWI ex USA	1.3	7.3	20.5	-10.2	-5.3	21.8	13.6	-14.6	29.7	10.4
Hexavest International Equity	1.9									
Hexavest International Equity (Net of Fees)	1.3									
MSCI EAFE	1.1	6.8	20.3	-10.2	-4.2	23.6	18.6	-13.8	30.4	5.9
Total International Emerging Market Equity	6.2	8.0	25.3	-8.6	-6.6	12.6	3.5	-4.1		
MSCI Emerging Markets	1.2	8.2	23.7	-12.1	-5.1	14.3	2.9	-16.0	27.8	23.2
DFA Emerging Markets Value Fund (Net of Fees)	2.0	5.7	27.6	-11.7	-9.1	15.5	2.1			
MSCI Emerging Markets	1.2	8.2	23.7	-12.1	-5.1	14.3	2.9	-16.0	27.8	23.2
GQG Partners Emerging Markets Equity	10.0	10.6								
GQG Partners Emerging Markets Equity (Net of Fees)	9.4	10.1								
MSCI Emerging Markets	1.2	8.2	<i>23</i> .7	-12.1	-5.1	14.3	2.9	-16.0	27.8	23.2

	Fiscal 2019 (%)	Fiscal 2018 (%)	Fiscal 2017 (%)	Fiscal 2016 (%)	Fiscal 2015 (%)	Fiscal 2014 (%)	Fiscal 2013 (%)	Fiscal 2012 (%)	Fiscal 2011 (%)	Fiscal 2010 (%)
Total Investment Grade Bonds	7.6	-0.4	-0.6	5.6	1.9	5.2	0.0	7.8	6.4	10.7
BBgBarc US Aggregate TR	7.9	-0.4	-0.3	6.0	1.9	4.4	-0.7	7.5	3.9	9.5
Northern Trust 1-5 Year Credit Bond Index Fund	6.0	0.0	0.9							
Northern Trust 1-5 Year Credit Bond Index Fund (Net of Fees)	5.9	-0.1	0.8							
BBgBarc US Credit 1-5 Yr TR	6.1	0.1	1.3	3.1	1.3	3.4	2.1	3.3	4.8	9.1
Northern Trust Barclays Aggregate Bond Index	7.9	-0.4	-0.7	5.7	2.0	4.3	-0.8	7.7	3.8	9.6
Northern Trust Barclays Aggregate Bond Index (Net of Fees)	7.9	-0.5	-0.7	5.7	1.9	4.3	-0.8	7.6	3.8	9.5
BBgBarc US Aggregate TR	7.9	-0.4	-0.3	6.0	1.9	4.4	-0.7	7.5	3.9	9.5
Total TIPS	4.8	1.5	-0.3	3.4	-2.0					
BBgBarc US TIPS TR	4.8	2.1	-0.6	4.4	-1.7	4.4	-4.8	11.7	7.7	9.5
IR&M 1-10 Year Index	4.8	1.5	-0.3	3.4	-2.0					
IR&M 1-10 Year Index (Net of Fees)	4.7	1.4	-0.4	3.3	-2.1					
BBgBarc US TIPS 1-10 Yr TR	4.7	1.5	-0.3	3.3	-1.9	3.6	-3.1	6.3	7.5	8.5



#### Total Fund Aggregate | As of December 31, 2019

	Fiscal 2019 (%)	Fiscal 2018 (%)	Fiscal 2017 (%)	Fiscal 2016 (%)	Fiscal 2015 (%)	Fiscal 2014 (%)	Fiscal 2013 (%)	Fiscal 2012 (%)	Fiscal 2011 (%)	Fiscal 2010 (%)
Total High Yield Bonds*	6.4	2.8	13.3	0.8	-1.4	12.4	8.4	7.6	12.5	21.5
BBgBarc US High Yield TR	7.5	2.6	12.7	1.6	-0.4	11.7	9.5	7.3	15.6	26.8
Sky Harbor High Yield	6.4	2.8	13.3	0.8	-1.4	12.4				
Sky Harbor High Yield (Net of Fees)	6.1	2.5	12.9	0.3	-1.9	11.8				
BBgBarc US High Yield TR	7.5	2.6	12.7	1.6	-0.4	11.7	9.5	7.3	15.6	26.8
Summit Credit Fund II, L.P.										
Summit Partners Credit Fund III, L.P.										
Total Bank Loans	4.5	3.5	4.5	2.9	3.3	6.1	9.5			
Credit Suisse Leveraged Loans	4.1	4.7	7.5	0.9	2.2	6.1	7.6	3.3	9.7	17.7
Beach Point Leveraged Loan	4.5	3.5	4.5	2.9	3.3	6.1	9.5			
Beach Point Leveraged Loan (Net of Fees)	4.0	2.8	3.8	2.2	2.6	5.5	8.8			
Credit Suisse Leveraged Loans	4.1	4.7	7.5	0.9	2.2	6.1	7.6	3.3	9.7	17.7
Total Emerging Markets Debt (Net of Fees)	6.9	-4.5	6.4	0.1	-16.9	1.1	-1.4			
JP Morgan GBI EM Global Diversified TR USD	9.0	-2.3	6.4	2.0	-15.4	3.9	1.3	-1.7	19.7	15.0
Stone Harbor Emerging Markets Local Currency Debt (Net of Fees)	6.9	-4.5	6.4	0.1	-16.9	1.1	-1.4			
JP Morgan GBI EM Global Diversified TR USD	9.0	-2.3	6.4	2.0	-15.4	3.9	1.3	-1.7	19.7	15.0

Note: Total High Yield Bonds performance excludes the performance from Summit Credit Fund II and Summit Credit Fund III.

	Fiscal 2019 (%)	Fiscal 2018 (%)	Fiscal 2017 (%)	Fiscal 2016 (%)	Fiscal 2015 (%)	Fiscal 2014 (%)	Fiscal 2013 (%)	Fiscal 2012 (%)	Fiscal 2011 (%)	Fiscal 2010 (%)
Total Real Estate	9.5	6.5	4.1	14.9	8.0	6.3	9.8	14.6	34.6	55.8
NCREIF ODCE Equal Weighted	6.9	8.6	8.1	12.2	14.6	12.3	11.8	12.5	20.4	-7.7
Vanguard REIT Index (Net of Fees)	12.2	2.3	-1.9	23.9	3.8					
Spliced Vanguard REIT Benchmark	12.2	2.5	-1.8	24.1	3.9	13.4	9.0	13.2	34.1	<i>55.2</i>
A.E.W Core Property Trust (Net of Fees)	6.0	7.3	6.9	10.3	12.2	11.0				
NCREIF ODCE (net)	5.5	7.5	6.9	10.8	13.4	11.8	11.1	11.3	19.4	-6.8
DRA Growth and Income Fund VIII										
DRA Growth and Income Fund IX										
Carlyle Realty Partners VIII, L.P.										
Total Natural Resources (Net of Fees)	9.2	-6.8								
FTSE Gold Mines PR USD	18.6	-1.4	-21.8	68.5	-31.0	10.2	-48.0	-21.9	4.4	31.2
First Eagle Gold Fund (Net of Fees)	9.2	-6.8								
FTSE Gold Mines PR USD	18.6	-1.4	-21.8	68.5	-31.0	10.2	-48.0	-21.9	4.4	31.2



#### Total Fund Aggregate | As of December 31, 2019

	Fiscal 2019 (%)	Fiscal 2018 (%)	Fiscal 2017 (%)	Fiscal 2016 (%)	Fiscal 2015 (%)	Fiscal 2014 (%)	Fiscal 2013 (%)	Fiscal 2012 (%)	Fiscal 2011 (%)	Fiscal 2010 (%)
Total Private Equity										
Strategic Investors Fund VIII										
Ironsides Direct Investment Fund V, L.P.										
Arboretum Ventures V, L.P.										
Total Cash										
NT Cash										

\*One or more accounts have been excluded from the composite for the purposes of performance calculations and market value.

### **VEBA Detail**



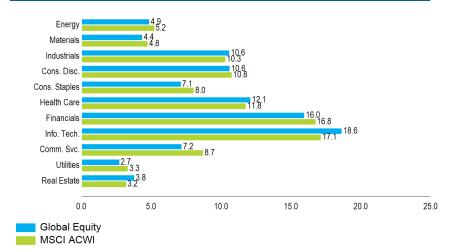
Global Equity | As of December 31, 2019

Asset Allocation on December 31, 2019			
	Actual	Actual	
DFA Emerging Markets Value Fund	\$5,531,312	5.0%	
GQG Partners Emerging Markets Equity	\$6,666,589	6.0%	
Hexavest International Equity	\$11,005,672	10.0%	
Loomis Sayles Small Cap Value Equity	\$3,610,640	3.3%	
Northern Trust Russell 1000 Index	\$63,235,745	57.4%	
RhumbLine S&P 400 Index	\$7,439,957	6.8%	
WCM Focused Growth International	\$12,729,160	11.5%	
Total	\$110,219,074	100.0%	

#### Global Equity | As of December 31, 2019

Global Equity Characteristics			
	Portfolio	Index	Portfolio
	Q4-19	Q4-19	Q3-19
Market Value			
Market Value (\$M)	110.2		101.5
Number Of Holdings	3827	3017	3963
Characteristics			
Weighted Avg. Market Cap. (\$B)	171.8	176.6	144.2
Median Market Cap (\$B)	2.4	10.0	2.1
P/E Ratio	20.6	19.4	19.2
Yield	2.0	2.4	2.1
EPS Growth - 5 Yrs.	12.4	11.2	11.9
Price to Book	3.3	3.1	3.2
Beta (holdings; domestic)	1.0	1.0	1.0

#### Sector Allocation (%) vs MSCI ACWI



Top Holdings		
APPLE	2.6%	
MICROSOFT	2.4%	
AMAZON.COM	1.5%	
FACEBOOK CLASS A	1.0%	
BERKSHIRE HATHAWAY 'B'	0.9%	
JP MORGAN CHASE & CO.	0.9%	
ALPHABET 'C'	0.8%	
ALPHABET A	0.8%	
JOHNSON & JOHNSON	0.8%	
ACCENTURE CLASS A	0.8%	
Total	12.3%	



#### Global Equity | As of December 31, 2019

Global Equity Region Allocation				
	vs MSCI ACWI			
Region	% of Total	% of Bench	% Diff	
North America ex U.S.	1.21%	2.97%	-1.75%	
United States	71.97%	55.66%	16.31%	
Europe Ex U.K.	8.33%	13.66%	-5.33%	
United Kingdom	2.62%	4.82%	-2.20%	
Pacific Basin Ex Japan	3.29%	3.47%	-0.17%	
Japan	2.84%	7.18%	-4.34%	
Emerging Markets	9.65%	11.65%	-1.99%	
Other	0.08%	0.60%	-0.52%	
Total	100.00%	100.00%		



#### Global Equity | As of December 31, 2019

Asset Allocation on December 31, 2019			
	Actual	Actual	
Loomis Sayles Small Cap Value Equity	\$3,610,640	4.9%	
Northern Trust Russell 1000 Index	\$63,235,745	85.1%	
RhumbLine S&P 400 Index	\$7,439,957	10.0%	
Total	\$74,286,341	100.0%	

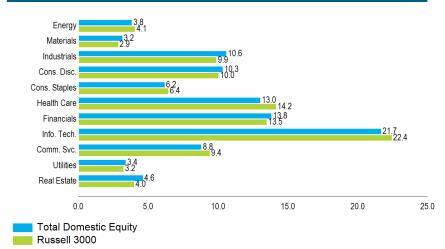
#### Total Domestic Equity Style Map 3 Years Ending December 31, 2019



#### Global Equity | As of December 31, 2019

Total Domestic Equity Characteristics			
	Portfolio	Index	Portfolio
	Q4-19	Q4-19	Q3-19
Market Value			
Market Value (\$M)	74.3		68.4
Number Of Holdings	1225	2992	1225
Characteristics			
Weighted Avg. Market Cap. (\$B)	213.1	230.5	178.7
Median Market Cap (\$B)	6.8	1.8	6.5
P/E Ratio	22.8	22.8	20.6
Yield	1.8	1.8	1.9
EPS Growth - 5 Yrs.	13.2	13.1	13.0
Price to Book	3.6	3.6	3.4
Beta (holdings; domestic)	1.0	1.0	1.0

#### Sector Allocation (%) vs Russell 3000



Top Holdings	
APPLE	3.7%
MICROSOFT	3.4%
AMAZON.COM	2.2%
FACEBOOK CLASS A	1.4%
BERKSHIRE HATHAWAY 'B'	1.3%
JP MORGAN CHASE & CO.	1.3%
ALPHABET 'C'	1.1%
ALPHABET A	1.1%
JOHNSON & JOHNSON	1.1%
VISA 'A'	0.9%
Total	17.6%



#### Total International Equity | As of December 31, 2019

Asset Allocation on December 31, 2019			
	Actual	Actual	
DFA Emerging Markets Value Fund	\$5,531,312	15.4%	
GQG Partners Emerging Markets Equity	\$6,666,589	18.6%	
Hexavest International Equity	\$11,005,672	30.6%	
WCM Focused Growth International	\$12,729,160	35.4%	
Total	\$35,932,733	100.0%	

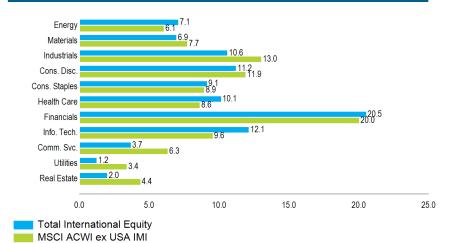
#### Total International Equity Style Map 3 Years Ending December 31, 2019



#### Total International Equity | As of December 31, 2019

Total International Equity Characteristics			
	Portfolio	Index	Portfolio
	Q4-19	Q4-19	Q3-19
Market Value			
Market Value (\$M)	35.9		33.2
Number Of Holdings	2615	6587	2747
Characteristics			
Weighted Avg. Market Cap. (\$B)	80.2	64.5	67.0
Median Market Cap (\$B)	0.5	1.7	0.5
P/E Ratio	17.4	16.2	16.9
Yield	2.5	3.0	2.6
EPS Growth - 5 Yrs.	11.3	9.3	10.2
Price to Book	2.8	2.4	2.7
Beta (holdings; domestic)	1.0	1.0	1.0

#### Sector Allocation (%) vs MSCI ACWI ex USA IMI



Top Holdings	
HDFC BANK ADR 1:3	2.1%
CSL	1.9%
LVMH	1.8%
SHOPIFY SUBD.VTG.SHS.'A'	1.7%
ACCENTURE CLASS A	1.6%
TENCENT HOLDINGS	1.6%
EXPERIAN	1.6%
CANADIAN PACIFIC RY.	1.6%
TAIWAN SEMICON.SPN.ADR 1:5	1.5%
ESSILORLUXOTTICA	1.4%
Total	16.7%



#### Total International Equity | As of December 31, 2019

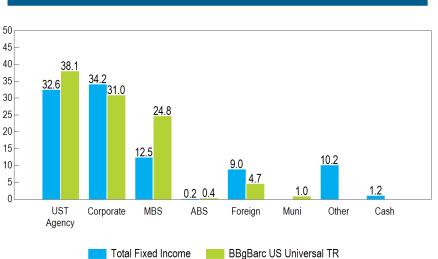
Total International Equity Region Allocation				
	vs MSCI ACWI ex USA IMI			
Region	% of Total	% of Bench	% Diff	
North America ex U.S.	3.84%	6.71%	-2.87%	
United States	9.93%	0.00%	9.93%	
Europe Ex U.K.	26.82%	30.33%	-3.51%	
United Kingdom	8.32%	11.22%	-2.89%	
Pacific Basin Ex Japan	10.62%	7.92%	2.70%	
Japan	9.18%	16.96%	-7.79%	
Emerging Markets	31.15%	25.37%	5.79%	
Other	0.13%	1.49%	-1.35%	
Total	100.00%	100.00%		

### City of Ann Arbor Retiree Health Care Benefit Plan & Trust (VEBA)

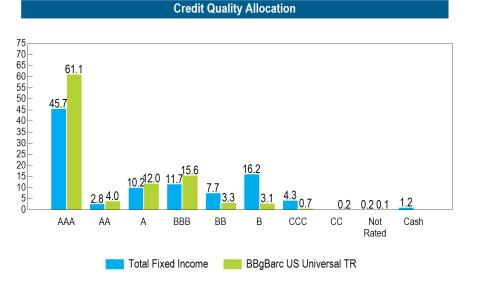
Asset Allocation on December 31, 2019							
	Actual	Actual					
Beach Point Leveraged Loan	\$5,908,064	10.5%					
IR&M 1-10 Year Index	\$7,086,210	12.6%					
Northern Trust 1-5 Year Credit Bond Index Fund	\$4,400,611	7.9%					
Northern Trust Barclays Aggregate Bond Index	\$22,842,124	40.8%					
Sky Harbor High Yield	\$9,046,804	16.1%					
Stone Harbor Emerging Markets Local Currency Debt	\$3,813,104	6.8%					
Summit Credit Fund II, L.P.	\$1,866,651	3.3%					
Summit Partners Credit Fund III, L.P.	\$1,057,504	1.9%					
Total	\$56,021,072	100.0%					

Total Fixed Income | As of December 31, 2019

Total Fixed Income Fixed Income Characteristics									
vs. BBgBarc US Universal TR									
Portfolio Index Portfolio									
	Q4-19 Q4								
Fixed Income Characteristics									
Yield to Maturity	3.3	2.8	3.4						
Average Duration	4.2	6.1	4.3						
Average Quality	А	AA	А						
Weighted Average Maturity	6.4	12.2	6.4						



#### US Sector Allocation



## **VEBA Portfolio Reviews**

## City of Ann Arbor Retiree Health Care Benefit Plan & Trust (VEBA)

### Northern Trust Russell 1000 Index | As of December 31, 2019

	A	coun	t Infor	matio	n			
Account Name					Nort	hern Tru	st Russell 10	000 Index
Account Structure							Commine	gled Fund
Investment Style		Passive						
Inception Date								2/01/12
Account Type						US S	stock Large	Cap Core
Benchmark							Rus	ssell 1000
Universe					eV US	Large C	ap Core Equ	uity Gross
	Po	ortfolio	o Perfo	rmanc	e			
	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)	Inceptio n (%)	Inceptio n Date

	(%)	(%)	(%)	(%)	(%)	(%)	n (%)	n Date
Northern Trust Russell 1000 Index	9.0	31.4	15.0	11.4	14.6	-	14.2	Feb-12
Northern Trust Russell 1000 Index (Net)	9.0	31.4	15.0	11.4	14.5		14.2	
Russell 1000	9.0	31.4	15.0	11.5	14.6	13.5	14.3	Feb-12
eV US Large Cap Core Equity Gross Median	8.2	29.5	14.5	11.0	14.5	13.4	14.0	Feb-12
eV US Large Cap Core Equity Gross Rank	34	31	41	35	45		43	Feb-12

Тор 10	) Holdings
APPLE	2.4%
MICROSOFT	2.2%
AMAZON.COM	1.4%
FACEBOOK CLASS A	0.9%
BERKSHIRE HATHAWAY 'B'	0.8%
JP MORGAN CHASE & CO.	0.8%
ALPHABET 'C'	0.7%
ALPHABET A	0.7%
JOHNSON & JOHNSON	0.7%
ACCENTURE CLASS A	0.7%

Northern Trust I	Russell 1000 Ir	ndex Character	istics
	Portfolio	Index	Portfoli
	Q4-19	Q4-19	Q3-1
Market Value			
Market Value (\$M)	63.2		58.
Number Of Holdings	993	997	99
Characteristics			
Weighted Avg. Market Cap. (\$B)	249.5	246.6	209.
Median Market Cap (\$B)	10.5	10.4	9
P/E Ratio	23.1	23.1	20
Yield	1.8	1.8	1.
EPS Growth - 5 Yrs.	13.5	13.4	13
Price to Book	3.8	3.8	3.
Beta (holdings; domestic)	1.0	1.0	1.
Sector Distribution			
Energy	4.1	4.1	4
Materials	2.8	2.8	2
Industrials	9.5	9.5	9
Consumer Discretionary	10.0	10.0	10
Consumer Staples	6.7	6.7	7.
Health Care	13.9	13.9	13
Financials	13.0	13.2	13
Information Technology	23.0	23.1	22.
Communication Services	9.9	9.9	9
Utilities	3.2	3.2	3
Real Estate	3.7	3.7	4.

## City of Ann Arbor Retiree Health Care Benefit Plan & Trust (VEBA)

Account Information						
Account Name	RhumbLine S&P 400 Index					
Account Structure	Separate Account					
Investment Style	Passive					
Inception Date	2/01/10					
Account Type	US Stock Mid					
Benchmark	S&P 400 MidCap					
Universe	eV US Mid Cap Equity Gross					

Portfolio Performance								
	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)	Inceptio n (%)	Inceptio n Date
RhumbLine S&P 400 Index	7.0	26.2	9.3	9.2	12.5		13.3	Feb-10
RhumbLine S&P 400 Index (Net)	7.0	26.1	9.3	9.2	12.5		13.3	
S&P 400 MidCap	7.1	26.2	9.3	9.0	12.3	12.7	13.2	Feb-10
eV US Mid Cap Equity Gross Median	7.3	30.8	12.5	9.9	13.5	13.4	14.0	Feb-10
eV US Mid Cap Equity Gross Rank	54	79	72	59	68		66	Feb-10

Top 10 Holdings	
TELEDYNE TECHS.	0.7%
DOMINO'S PIZZA	0.7%
TYLER TECHNOLOGIES	0.6%
ALLEGHANY	0.6%
TERADYNE (XSC)	0.6%
WEST PHARM.SVS.	0.6%
FAIR ISAAC	0.6%
MEDICAL PROPS.TRUST	0.6%
TRIMBLE	0.6%
CAMDEN PROPERTY TST.	0.6%

### RhumbLine S&P 400 Index | As of December 31, 2019

RhumbLine	S&P 400 Index C	haracteristics	
	Portfolio	Index	Portfolio
	Q4-19	Q4-19	Q3-19
Market Value			
Market Value (\$M)	7.4		7.0
Number Of Holdings	401	400	402
Characteristics			
Weighted Avg. Market Cap. (\$B)	6.2	6.0	5.9
Median Market Cap (\$B)	4.3	4.3	4
P/E Ratio	21.7	21.7	20.
Yield	1.7	1.7	1.
EPS Growth - 5 Yrs.	11.6	11.5	11.
Price to Book	2.7	2.8	2.
Beta (holdings; domestic)	1.1	1.1	1
Sector Distribution			
Energy	2.1	2.2	2.
Materials	6.0	6.1	6
Industrials	15.6	15.5	15.
Consumer Discretionary	13.6	14.1	12.
Consumer Staples	2.9	3.3	2.
Health Care	9.7	9.6	9.
Financials	16.5	16.5	16.
Information Technology	15.5	15.4	15.
Communication Services	1.9	2.0	2.
Utilities	4.5	4.3	4.
Real Estate	11.2	10.9	11.

## City of Ann Arbor Retiree Health Care Benefit Plan &Trust (VEBA)

### Loomis Sayles Small Cap Value Equity | As of December 31, 2019

Account Information						
Account Name	Loomis Sayles Small Cap Value Equity					
Account Structure	Separate Account					
Investment Style	Active					
Inception Date	12/31/18					
Account Type	US Stock Small Cap Value					
Benchmark	Russell 2000 Value					
Universe	eV US Small Cap Value Equity Gross					

Portfolio Performance								
	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)	Inceptio n (%)	Inceptio n Date
Loomis Sayles Small Cap Value Equity	5.6	25.3				-	25.3	Dec-18
Loomis Sayles Small Cap Value Equity (Net)	5.5	24.4					24.4	
Russell 2000 Value	8.5	22.4	4.8	7.0	10.1	10.6	22.4	Dec-18
Russell 2000	9.9	25.5	8.6	8.2	11.6	11.8	25.5	Dec-18
eV US Small Cap Value Equity Gross Median	7.9	24.4	5.6	7.5	11.4	12.1	24.4	Dec-18
eV US Small Cap Value Equity Gross Rank	88	44				-	44	Dec-18

Top 10 Holdings					
VIAD	1.4%				
MARRIOTT VACATIONS WWD.	1.3%				
CHURCHILL DOWNS	1.2%				
GCI LIBERTY A	1.2%				
HARSCO	1.2%				
LITTELFUSE	1.2%				
NOMAD FOODS	1.2%				
ALLETE	1.2%				
APERGY	1.1%				
POPULAR	1.1%				

Loomis Sayles Sm	all Cap Value E Portfolio	quity Characteri	stics
	Index	Portfoli	
	Q4-19	Q4-19	Q3-1
Market Value			
Market Value (\$M)	3.6		3.
Number Of Holdings	133	1402	13
Characteristics			
Weighted Avg. Market Cap. (\$B)	3.8	2.2	3
Median Market Cap (\$B)	3.2	0.7	3
P/E Ratio	19.5	16.3	19
Yield	1.5	2.1	1
EPS Growth - 5 Yrs.	13.3	7.4	11
Price to Book	2.2	1.7	2
Beta (holdings; domestic)	1.2	1.2	
Sector Distribution			
Energy	3.1	5.8	2
Materials	3.2	4.7	3
Industrials	19.5	12.6	18
Consumer Discretionary	9.9	9.7	9
Consumer Staples	4.0	2.7	4
Health Care	5.3	5.4	5
Financials	23.0	30.2	22
Information Technology	12.0	9.7	12
Communication Services	3.8	2.2	2
Utilities	5.1	5.9	6
Real Estate	7.3	11.1	8

## City of Ann Arbor Retiree Health Care Benefit Plan & Trust (VEBA)

### First Eagle Gold Fund | As of December 31, 2019

Account Information						
Account Name	First Eagle Gold Fund					
Account Structure	Mutual Fund					
Investment Style	Active					
Inception Date	7/01/17					
Account Type	Other					
Benchmark	FTSE Gold Mines PR USD					
Universe	eV Global Natural Resources Equity Net					

Portfolio Performance								
	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)	Inceptio n (%)	Inceptio n Date
First Eagle Gold Fund (Net)	9.9	39.0					6.8	Jul-17
FTSE Gold Mines PR USD	8.6	41.2	11.0	11.4	-5.3	-4.6	11.9	Jul-17
S&P Global LargeMidCap Commodity and Resources GR USD	8.1	16.6	8.0	3.8	0.9	1.7	10.0	Jul-17
eV Global Natural Resources Equity Net Median						-		Jul-17
eV Global Natural Resources Equity Net Rank								Jul-17

Top 10 Holdings					
BARRICK GOLD (NYS)	14.9%				
NEWMONT	13.8%				
WHEATON PRECIOUS METALS	9.6%				
AGNICO EAGLE MINES	6.8%				
NOVAGOLD RESOURCES	6.8%				
NEWCREST MINING	5.9%				
B2GOLD	5.8%				
ROYAL GOLD	5.4%				
DETOUR GOLD	4.9%				
FRANCO-NEVADA	4.8%				

First Eagle Gold Fund Characteristics						
Portfolio Port						
	Q4-19	Q3-19				
Market Value						
Market Value (\$M)	2.5	2.3				
Number Of Holdings	21	21				
Characteristics						
Weighted Avg. Market Cap. (\$B)	15.9	14.1				
Median Market Cap (\$B)	5.9	5.8				
P/E Ratio	36.0	53.6				
Yield	0.9	0.8				
EPS Growth - 5 Yrs.	-8.9	-11.5				
Price to Book	2.5	2.2				
Beta (holdings; domestic)	0.2	0.2				
Sector Distribution						
Energy	0.0	0.0				
Materials	92.4	93.7				
Industrials	0.0	0.0				
Consumer Discretionary	0.0	0.0				
Consumer Staples	0.0	0.0				
Health Care	0.0	0.0				
Financials	0.0	0.0				
Information Technology	0.0	0.0				
Communication Services	0.0	0.0				
Utilities	0.0	0.0				
Real Estate	0.0	0.0				

## City of Ann Arbor Retiree Health Care Benefit Plan & Trust (VEBA)

### WCM Focused Growth International | As of December 31, 2019

Account Information						
Account Name	WCM Focused Growth International					
Account Structure	Commingled Fund					
Investment Style	Active					
Inception Date	8/01/17					
Account Type	Non-US Stock Developed					
Benchmark	MSCI ACWI ex USA					
Universe	eV EAFE Core Equity Gross					

Portfolio Performance								
	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)	Inceptio n (%)	Inceptio n Date
WCM Focused Growth International	10.0	36.7				-	14.2	Aug-17
WCM Focused Growth International (Net)	9.8	35.7				-	13.2	
MSCI ACWI ex USA	8.9	21.5	9.9	5.5	5.4	5.0	4.8	Aug-17
eV EAFE Core Equity Gross Median	9.2	23.4	10.1	7.1	7.8	7.6	4.9	Aug-17
eV EAFE Core Equity Gross Rank	38	1					1	Aug-17

Top 10 Holdings					
CSL	5.5%				
SHOPIFY SUBD.VTG.SHS.'A'	5.2%				
ACCENTURE CLASS A	4.8%				
LVMH	4.7%				
EXPERIAN	4.7%				
CANADIAN PACIFIC RY.	4.7%				
TAIWAN SEMICON.SPN.ADR 1:5	4.5%				
ESSILORLUXOTTICA	4.1%				
RESMED	4.0%				
NESTLE 'R' (OTC)	4.0%				

WCM Focused Gr	owth Internatio	nal Characterist	ics			
	Portfolio Ind					
	Q4-19	Q4-19	Q3-1			
Market Value						
Market Value (\$M)	12.7		11.			
Number Of Holdings	29	2379	3			
Characteristics						
Weighted Avg. Market Cap. (\$B)	101.3	74.1	88.			
Median Market Cap (\$B)	44.4	8.2	40			
P/E Ratio	32.6	16.3	29			
Yield	1.2	3.0	1			
EPS Growth - 5 Yrs.	15.0	9.1	14			
Price to Book	5.8	2.4	5			
Beta (holdings; domestic)	0.9	1.0	0			
Sector Distribution						
Energy	0.0	6.5	0			
Materials	3.1	7.4	3			
Industrials	14.4	12.0	13			
Consumer Discretionary	18.5	11.8	16			
Consumer Staples	8.9	9.4	8			
Health Care	16.3	8.8	14			
Financials	7.2	21.5	10			
Information Technology	23.3	9.3	18			
Communication Services	3.6	6.6	4			
Utilities	0.0	3.4	0			
Real Estate	0.0	3.2	0			

## City of Ann Arbor Retiree Health Care Benefit Plan & Trust (VEBA)

#### **Account Information** Account Name **Hexavest International Equity Commingled Fund** Account Structure Investment Style Active 8/01/17 Inception Date Account Type Non-US Stock Developed Benchmark MSCI EAFE Universe eV EAFE Core Equity Gross **Portfolio Performance** Inceptio 1 Yr 3 Yrs 5 Yrs 7 Yrs 10 Yrs QTD Inceptio (%) (%) (%) (%) (%) (%) n Date (%) 17.0 3.1 Aug-17 Hexavest International Equity 7.3 ---..... act International Equit -17

Hexavest International Equity (Net)	7.1	16.4					2.6	
MSCI EAFE	8.2	22.0	9.6	5.7	6.3	5.5	4.9	Aug-17
eV EAFE Core Equity Gross Median	9.2	23.4	10.1	7.1	7.8	7.6	4.9	Aug-17
eV EAFE Core Equity Gross Rank	89	95					78	Aug-17

Top 10 Holdings	
NESTLE 'R'	3.0%
ISHARES MSCI EMERGING MARKETS ETF	2.4%
ROCHE HOLDING	2.4%
ISHARES MSCI CHINA	2.2%
NOVARTIS 'R'	2.0%
ROYAL DUTCH SHELL A(LON)	1.9%
TOTAL	1.9%
SANOFI	1.6%
HSBC HOLDINGS	1.5%
ISHARES MSCI SOUTH KOREA ETF	1.5%

### Hexavest International Equity | As of December 31, 2019

	rnational Equity		
	Portfolio	Index	Portfolio
	Q4-19	Q4-19	Q3-19
Market Value			
Market Value (\$M)	11.0		10.
Number Of Holdings	215	918	23
Characteristics			
Weighted Avg. Market Cap. (\$B)	68.8	63.7	64.
Median Market Cap (\$B)	21.7	10.8	18.
P/E Ratio	14.5	17.2	14.
Yield	3.6	3.2	3
EPS Growth - 5 Yrs.	7.0	7.1	6.
Price to Book	2.2	2.4	2
Beta (holdings; domestic)	1.1	1.0	1.
Sector Distribution			
Energy	9.4	4.9	7
Materials	8.2	7.1	10
Industrials	10.5	15.1	6
Consumer Discretionary	7.4	11.6	8
Consumer Staples	14.2	11.2	13
Health Care	12.4	12.2	13
Financials	20.3	18.6	15.
Information Technology	1.0	7.0	
Communication Services	3.7	5.2	6
Utilities	1.5	3.7	4
Real Estate	1.8	3.4	3

## City of Ann Arbor Retiree Health Care Benefit Plan & Trust (VEBA)

### DFA Emerging Markets Value Fund | As of December 31, 2019

Account Information				
Account Name	DFA Emerging Markets Value Fund			
Account Structure	Mutual Fund			
Investment Style	Active			
Inception Date	2/01/12			
Account Type	Non-US Stock Emerging			
Benchmark	MSCI Emerging Markets			
Universe	eV Emg Mkts Equity Net			

	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs <sup>-</sup> (%)	10 Yrs (%)	Inceptio n (%)	nceptio n Date
DFA Emerging Markets Value Fund	9.7	9.6	8.9	4.7	2.1	-	2.5	Feb-12
MSCI Emerging Markets	11.8	18.4	11.6	5.6	3.3	3.7	3.7	Feb-12
eV Emg Mkts Equity Net Median	11.4	19.3	10.7	5.5	3.9	4.4	4.5	Feb-12
eV Emg Mkts Equity Net Rank	76	96	78	67	91		96	Feb-12

Top 10 Holdings				
RELIANCE INDUSTRIES	3.7%			
CHINA CON.BANK 'H'	2.8%			
VALE ON	2.1%			
CHINA MOBILE	1.9%			
INDL&COML.BOC.'H'	1.5%			
HON HAI PRECN.IND.	1.5%			
PTRO.BRAO.ADR 1:2	1.2%			
PJSC LUKOIL SPON (LON) ADR	1.2%			
CNOOC	1.1%			
PETROLEO BRASILEIRO PN	1.1%			

DFA Emerging N	larkets Value Fu	nd Characterist	ics
	Portfolio	Index	Portfolio
	Q4-19	Q4-19	Q3-19
Market Value			
Market Value (\$M)	5.5		5.0
Number Of Holdings	2333	1371	244
Characteristics			
Weighted Avg. Market Cap. (\$B)	30.3	106.2	25.0
Median Market Cap (\$B)	0.4	5.9	0.4
P/E Ratio	10.4	15.0	10.0
Yield	3.6	2.7	3.9
EPS Growth - 5 Yrs.	5.9	13.1	6.
Price to Book	1.5	2.6	1.
Beta (holdings; domestic)	1.1	1.1	1
Sector Distribution			
Energy	16.0	7.3	16.
Materials	14.9	7.3	15.
Industrials	8.7	5.3	9.
Consumer Discretionary	6.9	14.2	7
Consumer Staples	2.6	6.2	3
Health Care	1.3	2.7	1.
Financials	29.1	24.6	29.
Information Technology	8.4	15.7	8.
Communication Services	4.9	11.0	4.
Utilities	1.5	2.6	1.
Real Estate	4.8	3.0	4

## City of Ann Arbor Retiree Health Care Benefit Plan &Trust (VEBA)

### GQG Partners Emerging Markets Equity | As of December 31, 2019

Account Information				
Account Name	GQG Partners Emerging Markets Equity			
Account Structure	Commingled Fund			
Investment Style	Active			
Inception Date	7/01/17			
Account Type	Non-US Stock Emerging			
Benchmark	MSCI Emerging Markets			
Universe	eV Emg Mkts Equity Gross			

	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)	Inceptio n (%)	Inceptio n Date
GQG Partners Emerging Markets Equity	6.5	23.1				-	9.2	Jul-17
MSCI Emerging Markets	11.8	18.4	11.6	5.6	3.3	3.7	6.6	Jul-17
eV Emg Mkts Equity Gross Median	11.5	19.6	11.8	6.4	4.7	5.3	6.7	Jul-17
eV Emg Mkts Equity Gross Rank	95	32					20	Jul-17

Top 10 Holdings					
HOUSING DEVELOPMENT FINANCE CORPORATION	6.3%				
ALIBABA GROUP HOLDING ADR 1:8	6.2%				
BANK CENTRAL ASIA	4.7%				
AIA GROUP	4.5%				
HDFC BANK ADR 1:3	4.2%				
CHINA TOWER 'H'	3.3%				
BANCO BRADESCO PN	3.2%				
PING AN INSURANCE (GROUP) OF CHINA 'H'	2.9%				
RELIANCE INDUSTRIES	2.9%				
GUANGDONG INVESTMENT	2.8%				

	Portfolio	Index	Portfolic
	Q4-19	Q4-19	Q3-19
Market Value			
Market Value (\$M)	6.7		6.3
Number Of Holdings	52	1371	56
Characteristics			
Weighted Avg. Market Cap. (\$B)	106.4	106.2	68.5
Median Market Cap (\$B)	46.0	5.9	34.6
P/E Ratio	19.1	15.0	21.3
Yield	2.2	2.7	2.0
EPS Growth - 5 Yrs.	15.7	13.1	11.9
Price to Book	3.3	2.6	3.5
Beta (holdings; domestic)	1.1	1.1	0.9
Sector Distribution			
Energy	8.4	7.3	5
Materials	4.9	7.3	1.1
Industrials	5.3	5.3	7.
Consumer Discretionary	8.1	14.2	0.
Consumer Staples	6.4	6.2	21.4
Health Care	2.7	2.7	3.0
Financials	38.0	24.6	32.
Information Technology	14.2	15.7	8.
Communication Services	2.6	11.0	4.
Utilities	2.8	2.6	5.
Real Estate	3.6	3.0	4.9



### Strategic Investors Fund VIII | As of December 31, 2019

		Account Information						
	Acco	ount Name		Strategi	c Investors Fund V	111		
	Acco	ount Structure			Oth	er		
	Inve	stment Style			Activ	ve		
	Inception Date 2/01/17							
	Acco	ount Type			Private Equi	ty		
	Ben	chmark						
		No	n-Marketable Se	curities Over	view			
			As of Decemi	oer 31, 2019				
Account Type	Account	Vintage Year	Commitment	Cumulative Takedown	Cumulative Distributions	Value (RV)	Total Value (RV + Dist)	Unfunded Commitment
Private Equity	Strategic Investors Fund VII	I 2017	\$2,000,000	\$1,382,000	\$0	\$1,917,175	\$1,917,175	\$618,000
	Total Account		\$2,000,000	\$1,382,000	\$0	\$1,917,175	\$1,917,175	\$618,000



### City of Ann Arbor Retiree Health Care Benefit Plan & Trust (VEBA)

#### Ironsides Direct Investment Fund V, L.P. | As of December 31, 2019

Account Information							
Account Name	Ironsides Direct Investment Fund V, L.P.						
Account Structure	Other						
Investment Style	Active						
Inception Date	12/01/18						
Account Type	Private Equity						
Benchmark							

Non-Marketable Securities Overview									
	As of December 31, 2019								
Account Type	Account	Vintage Year	Commitment	Cumulative Takedown	Cumulative Distributions	Value (RV)	Total Value (RV + Dist)	Unfunded Commitment	
Private Equity	Ironsides Direct Investment Fund V, L.P.	2019	\$1,000,000	\$1,056,454	\$68,692	\$1,069,283	\$1,137,975	-\$56,454	
	Total Account		\$1,000,000	\$1,056,454	\$68,692	\$1,069,283	\$1,137,975	-\$56,454	

#### **Investment Strategy**

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

As of September 30,2019, the number of investments is 10 and a Gross IRR of 17.9%.



### Arboretum Ventures V, L.P. | As of December 31, 2019

		Account Information						
	Acc	Account Name Arboretum Ventures V, L.P.				P.		
	Acc	ount Structure			Othe	er		
	Inve	estment Style			Activ	/e		
	Ince	eption Date			5/01/1	19		
	Acc	ount Type			Private Equit	ty		
	Ben	chmark						
		No	n-Marketable Se	curities Over	view			
			As of Decemi	oer 31, 2019				
Account Type	Account	Vintage Year	Commitment	Cumulative Takedown	Cumulative Distributions	Value (RV)	Total Value (RV + Dist)	Unfunded Commitment
Private Equity	Arboretum Ventures V, L.P.	2019	\$2,000,000	\$38,000	\$0	\$22,690	\$22,690	\$1,962,000
	Total Account		\$2,000,000	\$38,000	\$0	\$22,690	\$22,690	\$1,962,000

### City of Ann Arbor Retiree Health Care Benefit Plan & Trust (VEBA)

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45

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25 20

0

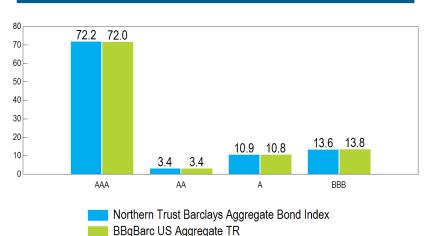
#### Northern Trust Barclays Aggregate Bond Index | As of December 31, 2019

Account Information						
Account Name	Northern Trust Barclays Aggregate Bond Index					
Account Structure	Commingled Fund					
Investment Style	Passive					
Inception Date	10/01/99					
Account Type	US Fixed Income Investment Grade					
Benchmark	BBgBarc US Aggregate TR					
Universe	eV US Core Fixed Inc Gross					

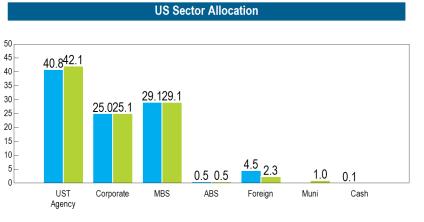
Portfolio Performance Summary								
	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)	Inceptio n (%)	Inceptio n Date
Northern Trust Barclays Aggregate Bond Index	0.2	8.8	4.0	2.9	2.6	3.7	5.0	Oct-99
Northern Trust Barclays Aggregate Bond Index (Net)	0.1	8.7	3.9	2.9	2.6	3.7	4.9	
BBgBarc US Aggregate TR	0.2	8.7	4.0	3.0	2.7	3.7	5.0	Oct-99
eV US Core Fixed Inc Gross Median	0.2	9.2	4.4	3.4	3.1	4.3	5.4	Oct-99
eV US Core Fixed Inc Gross Rank	58	76	88	94	92	92	89	Oct-99



vs. BBgBa	arc US Aggregate TR		
	Portfolio	Index	Portfolio
	Q4-19	Q4-19	Q3-19
Fixed Income Characteristics			
Yield to Maturity	2.3	2.3	2.3
Average Duration	5.9	6.3	5.8
Average Quality	AA	AA	AA
Weighted Average Maturity	7.9	13.1	7.9



#### **Credit Quality Allocation**



Northern Trust Barclays Aggregate Bond Index BBgBarc US Aggregate TR

## City of Ann Arbor Retiree Health Care Benefit Plan & Trust (VEBA)

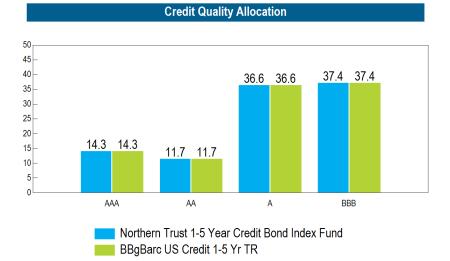
### Northern Trust 1-5 Year Credit Bond Index Fund | As of December 31, 2019

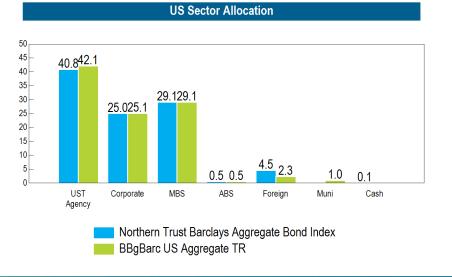
Account Information					
Account Name	Northern Trust 1-5 Year Credit Bond Index Fund				
Account Structure	Commingled Fund				
Investment Style	Passive				
Inception Date	12/01/15				
Account Type	US Fixed Income Investment Grade				
Benchmark	BBgBarc US Credit 1-5 Yr TR				
Universe	eV US Short Duration Fixed Inc Gross				

Portfolio Performance Summary								
	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)	Inceptio n (%)	Inceptio n Date
Northern Trust 1-5 Year Credit Bond Index Fund	0.8	6.4	3.2			-	2.8	Dec-15
Northern Trust 1-5 Year Credit Bond Index Fund (Net)	0.8	6.3	3.1				2.7	
BBgBarc US Credit 1-5 Yr TR	0.8	6.6	3.3	2.7	2.4	3.1	3.0	Dec-15
eV US Short Duration Fixed Inc Gross Median	0.6	4.6	2.6	2.1	1.8	2.2	2.3	Dec-15
eV US Short Duration Fixed Inc Gross Rank	17	5	13				14	Dec-15



vs. BBgBa	arc US Credit 1-5 Yr TR		
	Portfolio	Index	Portfolio
	Q4-19	Q4-19	Q3-19
Fixed Income Characteristics			
Yield to Maturity	2.1	2.2	2.2
Average Duration	2.6	2.7	2.6
Average Quality	А	А	А
Weighted Average Maturity	2.9	2.9	2.9



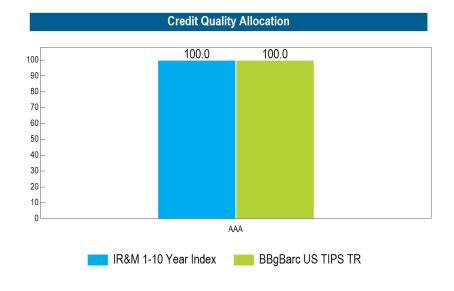


## City of Ann Arbor Retiree Health Care Benefit Plan & Trust (VEBA)

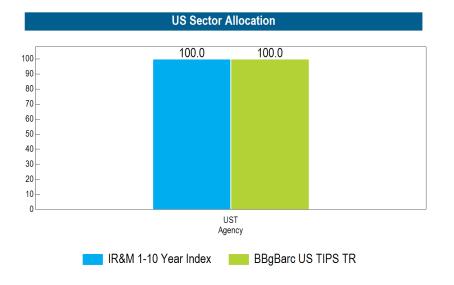
### IR&M 1-10 Year Index | As of December 31, 2019

Account Information						
Account Name	IR&M 1-10 Year Index					
Account Structure	Commingled Fund					
Investment Style	Passive					
Inception Date	11/01/13					
Account Type	US Inflation Protected Fixed					
Benchmark	BBgBarc US TIPS 1-10 Yr TR					
Universe	eV US TIPS / Inflation Fixed Inc Gross					

Portfolio Performance Summary								
	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)	Inceptio n (%)	Inceptio n Date
IR&M 1-10 Year Index	1.0	7.0	2.8	2.4			1.8	Nov-13
IR&M 1-10 Year Index (Net)	1.0	6.9	2.7	2.3			1.7	
BBgBarc US TIPS 1-10 Yr TR	1.0	6.9	2.8	2.4	1.0	2.6	1.8	Nov-13
eV US TIPS / Inflation Fixed Inc Gross Median	0.8	8.5	3.4	2.7	1.2	3.5	2.4	Nov-13
eV US TIPS / Inflation Fixed Inc Gross Rank	39	81	96	86			93	Nov-13



IR&M 1-10 Year Index Fixed Income Characteristics								
vs. BBgBarc US TIPS TR								
	Portfolio	Index	Portfolio					
	Q4-19	Q4-19	Q3-19					
Fixed Income Characteristics								
Yield to Maturity	0.1	0.2	0.3					
Average Duration	4.9	7.4	5.1					
Average Quality	AAA	AAA	AAA					
Weighted Average Maturity	5.0	8.0	5.2					

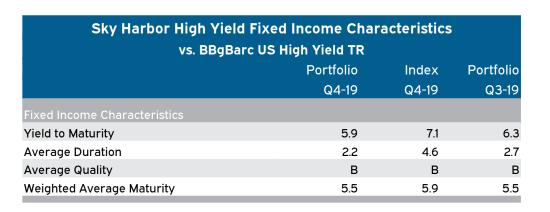


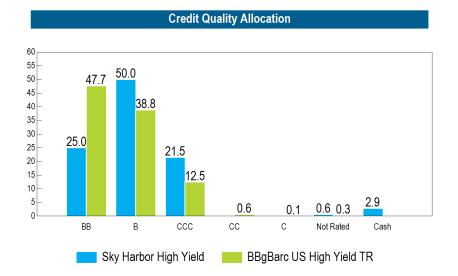
## City of Ann Arbor Retiree Health Care Benefit Plan & Trust (VEBA)

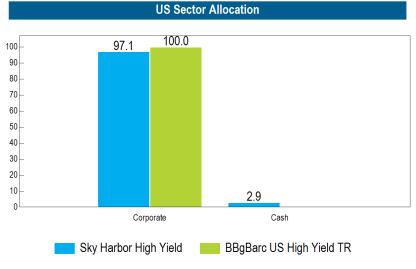
#### Sky Harbor High Yield | As of December 31, 2019

Account Information						
Account Name	Sky Harbor High Yield					
Account Structure	Commingled Fund					
Investment Style	Active					
Inception Date	12/01/12					
Account Type	US Fixed Income High Yield					
Benchmark	BBgBarc US High Yield TR					
Universe	eV US High Yield Fixed Inc Gross					

Portfolio Performance Summary								
	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)	Inceptio n (%)	Inceptio n Date
Sky Harbor High Yield	2.2	13.7	6.2	6.0	5.8		5.9	Dec-12
Sky Harbor High Yield (Net)	2.2	13.4	5.9	5.6	5.3		5.4	
BBgBarc US High Yield TR	2.6	14.3	6.4	6.1	5.8	7.6	5.9	Dec-12
eV US High Yield Fixed Inc Gross Median	2.5	14.3	6.4	6.0	5.8	7.7	6.0	Dec-12
eV US High Yield Fixed Inc Gross Rank	67	61	65	53	53		57	Dec-12









### Summit Credit Fund II, L.P. | As of December 31, 2019

Account Information						
Account Name	Summit Credit Fund II, L.P.					
Account Structure	Other					
Investment Style	Active					
Inception Date	12/01/14					
Account Type	US Fixed Income High Yield					
Benchmark						

Non-Marketable Securities Overview								
As of December 31, 2019								
Account Type	Account	Vintage Year	Commitment	Cumulative Takedown	Cumulative Distributions	Value (RV)	Total Value (RV + Dist)	Unfunded Commitment
US Fixed Income High Yield	Summit Credit Fund II, L.P.	2011	\$2,300,000	\$3,134,510	\$1,734,339	\$1,866,651	\$3,600,990	-\$834,510
	Total Account		\$2,300,000	\$3,134,510	\$1,734,339	\$1,866,651	\$3,600,990	-\$834,510

#### **Investment Strategy**

Summit Partners Credit Fund II ("Fund II" or the "Fund") will invest in middle market companies through directly originated, senior secured (first or second lien) loans. When in a second lien position, Summit prefers to be junior to an asset–backed loan from a bank, and ideally a senior lender that it has brought into the transaction itself, often by syndicating a portion of unitranche loan at a lower rate while keeping a portion for itself at a much higher effective interest rate. The Fund will target middle market companies of scale that have stable and recurring revenue, while avoiding highly cyclical companies with high CAPEX requirements. Borrowers' use of proceeds will vary and may include acquisition capital, or refinancing capital. The Fund will seek to reduce repayment risk through call protections and will seek upside through penny warrants.



## City of Ann Arbor Retiree Health Care Benefit Plan & Trust (VEBA)

#### Summit Partners Credit Fund III, L.P. | As of December 31, 2019

Account Information						
Account Name	Summit Partners Credit Fund III, L.P.					
Account Structure	Other					
Investment Style	Active					
Inception Date	11/01/18					
Account Type	US Fixed Income High Yield					
Benchmark						

Non-Marketable Securities Overview								
As of December 31, 2019								
Account Type	Account	Vintage Year	Commitment	Cumulative Takedown	Cumulative Distributions	Value (RV)	Total Value (RV + Dist)	Unfunded Commitment
US Fixed Income High Yield	Summit Partners Credit Fund III, L.P.	2018	\$2,500,000	\$1,479,349	\$409,502	\$1,057,504	\$1,467,006	\$1,020,651
	Total Account		\$2,500,000	\$1,479,349	\$409,502	\$1,057,504	\$1,467,006	\$1,020,651

#### **Investment Strategy**

Summit Partners Credit Fund III ("Fund III" or the "Fund") seeks to make opportunistic investments in non-sponsored, middle-market companies with business models characterized by stable, predictable cash generation. Summit continue to believe that middle market yields provide compelling value versus the syndicated market, and together with a variety of macroeconomic factors and secular trends, this has helped to create a dynamic market opportunity for alternative capital sources. Through their disciplined approach to credit investing – combining their deep credit market expertise and proactive approach to deal origination with the reach of the broader Summit platform – they remain committed to building a uniquely comprehensive understanding of middle market companies and proactively identifying a differentiated credit investment opportunity set.

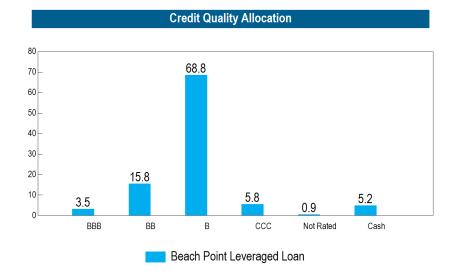
As of September 30, 2019 the number of investments is 12 and Net IRR is 21%.

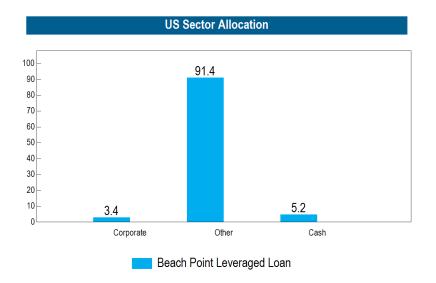
## City of Ann Arbor Retiree Health Care Benefit Plan & Trust (VEBA)

### Beach Point Leveraged Loan | As of December 31, 2019

Account Information						
Account Name	Beach Point Leveraged Loan					
Account Structure	Commingled Fund					
Investment Style	Active					
Inception Date	4/01/12					
Account Type	US Fixed Income					
Benchmark	Credit Suisse Leveraged Loans					
Universe	eV US Float-Rate Bank Loan Fixed Inc Gross					

Por								
	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)	Inceptio n (%)	Inceptio n Date
Beach Point Leveraged Loan	1.8	9.2	4.3	4.3	4.5		5.1	Apr-12
Beach Point Leveraged Loan (Net)	1.6	8.6	3.6	3.6	3.8	-	4.4	
Credit Suisse Leveraged Loans	1.7	<i>8.2</i>	4.5	4.5	4.4	5.2	4.7	Apr-12
eV US Float-Rate Bank Loan Fixed Inc Gross Median	1.7	8.7	4.5	4.7	4.5	5.3	4.8	Apr-12
eV US Float-Rate Bank Loan Fixed Inc Gross Rank	45	32	71	82	51		25	Apr-12





Beach Point Leveraged Loan Fixed Income Characteristics							
	Portfolio	Portfolio					
	Q4-19	Q3-19					
Fixed Income Characteristics							
Yield to Maturity	6.1	6.2					
Average Duration	0.3	0.4					
Average Quality	В	В					
Weighted Average Maturity	5.1	5.1					

## City of Ann Arbor Retiree Health Care Benefit Plan & Trust (VEBA)

#### Stone Harbor Emerging Markets Local Currency Debt | As of December 31, 2019

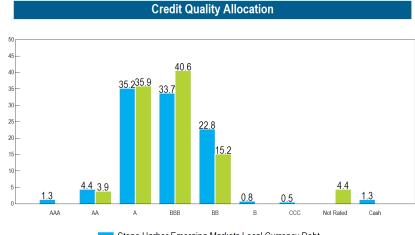
Account Information						
Account Name	Stone Harbor Emerging Markets Local Currency Debt					
Account Structure	Mutual Fund					
Investment Style	Active					
Inception Date	6/01/12					
Account Type	Non-US Fixed Income					
Benchmark	JP Morgan GBI EM Global Diversified TR USD					
Universe	eV Emg Mkts Fixed Inc - Local Currency Net					

Portfolio Performance Summary									
	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)	Inceptio n (%)	Inceptio n Date	
Stone Harbor Emerging									
Markets Local Currency Debt (Net)	5.2	13.1	5.6	1.7	-2.0	-	-0.2	Jun-12	
JP Morgan GBI EM Global Diversified TR USD	5.2	13.5	7.0	2.8	-0.2	2.7	1.7	Jun-12	
eV Emg Mkts Fixed Inc - Local Currency Net Median	5.4	13.3	6.6	2.2	-0.5	2.0	1.2	Jun-12	
eV Emg Mkts Fixed Inc - Local Currency Net Rank	64	54	74	76	94	-	98	Jun-12	

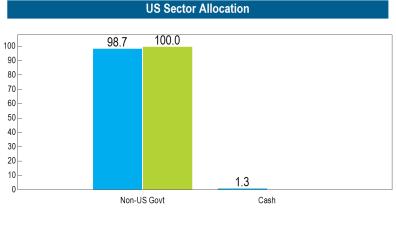
Stone Harbor Emerging Markets Local Currency Debt Fixed Income Characteristics

#### vs. JP Morgan GBI EM Global Diversified TR USD

	Portfolio	Index	Portfolio
	Q4-19	Q4-19	Q3-19
Fixed Income Characteristics			
Yield to Maturity	6.0	5.2	6.0
Average Duration	5.8	5.4	5.8
Average Quality	BBB	BBB	BBB



Stone Harbor Emerging Markets Local Currency Debt JP Morgan GBI EM Global Diversified TR USD



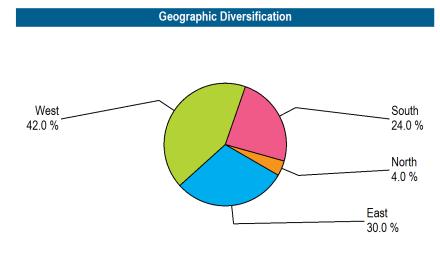
Stone Harbor Emerging Markets Local Currency Debt JP Morgan GBI EM Global Diversified TR USD

## City of Ann Arbor Retiree Health Care Benefit Plan & Trust (VEBA)

#### A.E.W Core Property Trust | As of December 31, 2019

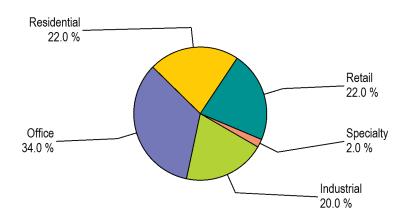
Account Information								
Account Name	A.E.W Core Property Trust							
Account Structure	Separate Account							
Investment Style	Active							
Inception Date	7/01/13							
Account Type	Real Estate							
Benchmark	NCREIF ODCE (net)							
Universe								

Portfolio Performance								
	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs 1 (%)	0 Yrs (%)	Inceptio n (%)	Inceptio n Date
A.E.W Core Property Trust (Net)	0.9	5.2	6.4	7.8		-	8.6	Jul-13
NCREIF ODCE (net)	1.3	4.4	6.1	8.0	9.2	10.4	8.9	Jul-13



Geographic Diversification: North represents Midwest region

Property Type Allocation



#### Investment Strategy

AEW employs leverage that is in-line with NFI-ODCE and currently has 10% of the net asset value in non-core investments, but in an investment with primarily core characteristics (mezzanine loan). The strategy invests mostly in the East and South, with significantly less exposure to the Midwest.

As of September 30, 2019, the number of investments is 83 and net IRR is 11.2%. Fiscal Year begins July 1.

## City of Ann Arbor Retiree Health Care Benefit Plan & Trust (VEBA)

### Vanguard REIT Index | As of December 31, 2019

	Ac	coun	t Infor	matio	n			
Account Name							Vanguard R	EIT Index
Account Structure							Mu	tual Fund
Investment Style								Active
Inception Date								3/01/14
Account Type								REITS
Benchmark					Spliced	l Vangu	ard REIT Be	nchmark
Universe							eV US	<b>REIT Net</b>
	QTD (%)				7 Yrs 1 (%)		Inceptio n (%)	Inceptio n Date
Vanguard REIT Index (Net)	0.6	28.9	8.4	7.2		-	9.3	Mar-14
Spliced Vanguard REIT Benchmark	0.6	29.0	8.5	7.3	9.6	12.1	9.5	Mar-14
eV US REIT Net Median	0.4	27.9	8.6	7.2	9.5	12.1	9.5	Mar-14

Top 10 Holdings	
VANGUARD REAL ESTATE II INDEX FUND	11.1%
AMERICAN TOWER	7.1%
CROWN CASTLE INTL.	4.1%
PROLOGIS REIT	3.9%
EQUINIX REIT	3.5%
SIMON PROPERTY GROUP	3.2%
PUBLIC STORAGE	2.3%
WELLTOWER	2.3%
EQUITY RESD.TST.PROPS. SHBI	2.1%
AVALONBAY COMMNS.	2.0%

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55

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60 Mar-14

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40

Vanguard REIT Index Characteristics				
	Portfolio	Portfolio		
	Q4-19	Q3-19		
Market Value				
Market Value (\$M)	6.9	6.9		
Number Of Holdings	186	183		
Characteristics				
Weighted Avg. Market Cap. (\$B)	27.7	27.6		
Median Market Cap (\$B)	3.1	2.9		
P/E Ratio	35.8	34.9		
Yield	3.5	3.2		
EPS Growth - 5 Yrs.	18.7	18.5		
Price to Book	2.8	2.9		
Beta (holdings; domestic)	0.6	0.6		
Sector Distribution				
Energy	0.0	0.0		
Materials	0.0	0.0		
Industrials	0.0	0.0		
Consumer Discretionary	0.0	0.0		
Consumer Staples	0.0	0.0		
Health Care	0.0	0.0		
Financials	0.0	0.0		
Information Technology	0.0	0.0		
Communication Services	0.0	0.0		
Utilities	0.0	0.0		
Real Estate	99.8	99.7		

eV US REIT Net Rank



## City of Ann Arbor Retiree Health Care Benefit Plan & Trust (VEBA)

### DRA Growth and Income Fund VIII | As of December 31, 2019

			Account Inf	ormation				
	Ac	count Name		DRA Growth a	nd Income Fund VI	II		
	Ac	count Structure			Othe	r		
	Inv	estment Style			Activ	e		
	Inc	eption Date			9/29/1	4		
	Ac	count Type			Real Estat	e		
	Ве	nchmark			NCREIF ODC	E		
	Un	iverse						
			As of Decemb	ber 31, 2019				
Account Type	Account	Vintage Year	Commitment	Cumulative Takedown	Cumulative Distributions	Value (RV)	Total Value (RV + Dist)	Unfunded Commitment
Real Estate	DRA Growth and Income Fund VIII	2014	\$2,500,000	\$2,855,413	\$2,076,285	\$1,668,196	\$3,744,481	-\$355,413
	Total Account		\$2,500,000	\$2,855,413	\$2,076,285	\$1,668,196	\$3,744,481	-\$355,413

#### **Investment Strategy**

Fund VIII will invest in a diversified portfolio of office, retail, multi-family, industrial and other real-estate related properties and assets across the United States and its territories. The Company will seek to generate an attractive return to investors of 12-15%, net of fees, expenses and carried interest, and a significant portion of this return is expected to be from cash flow. Fund VIII will attempt to capitalize on inefficiencies in real estate markets to acquire high quality operating assets at discounts to replacement cost. Such inefficiencies can result from (i) taking advantage of sellers' strategic or financial motivations, (ii) investing in markets or properties that are perceived as out of favor by other investors, (iii) leveraging DRA's industry relationships with both private and public joint venture partners to access deals, and (iv) utilizing DRA's financial experience and resources to exploit pricing inefficiencies in complex transactions.

As of September 30, 2019, the number of investments is 44 and net IRR is 10.9%.



## City of Ann Arbor Retiree Health Care Benefit Plan & Trust (VEBA)

#### DRA Growth and Income Fund IX | As of December 31, 2019

			Account Inf	ormation				
	Acc	ount Name		DRA Growth	and Income Fund	X		
	Acc	ount Structure			Commingled Fur	ld		
	Inve	estment Style			Activ	Active		
	Ince	eption Date			1/01/	/01/17		
	Acc	ount Type			Real Esta	te		
	Ber	ichmark			NCREIF ODC	E		
	Uni	Verse						
			As of Decemi	oer 31, 2019				
Account Type	Account	Vintage Year	Commitment	Cumulative Takedown	Cumulative Distributions	Value (RV)	Total Value (RV + Dist)	Unfunded Commitment
Real Estate	DRA Growth and Income Fund IX	2017	\$2,500,000	\$2,542,746	\$749,164	\$2,136,609	\$2,885,773	-\$42,746
	Total Account		\$2,500,000	\$2,542,746	\$749,164	\$2,136,609	\$2,885,773	-\$42,746

#### **Investment Strategy**

Fund VIII will invest in a diversified portfolio of office, retail, multi-family, industrial and other real-estate related properties and assets across the United States and its territories. The Company will seek to generate an attractive return to investors of 12-15%, net of fees, expenses and carried interest, and a significant portion of this return is expected to be from cash flow. Fund VIII will attempt to capitalize on inefficiencies in real estate markets to acquire high quality operating assets at discounts to replacement cost. Such inefficiencies can result from (i) taking advantage of sellers' strategic or financial motivations, (ii) investing in markets or properties that are perceived as out of favor by other investors, (iii) leveraging DRA's industry relationships with both private and public joint venture partners to access deals, and (iv) utilizing DRA's financial experience and resources to exploit pricing inefficiencies in complex transactions.



### Carlyle Realty Partners VIII, L.P. | As of December 31, 2019

Account Information				
Account Name	Carlyle Realty Partners VIII, L.P.			
Account Structure	Other			
Investment Style	Active			
Inception Date	9/01/17			
Account Type	Real Estate			
Benchmark				

As of December 31, 2019								
Account Type	Account	Vintage Year	Commitment	Cumulative Takedown	Cumulative Distributions	Value (RV)	Total Value (RV + Dist)	Unfunded Commitment
Real Estate	Carlyle Realty Partners VIII, L.P.	2017	\$2,000,000	\$385,297	\$0	\$420,903	\$420,903	\$1,614,703
	Total Account		\$2,000,000	\$385,297	\$0	\$420,903	\$420,903	\$1,614,703

### Total Fund Aggregate | As of December 31, 2019

Investment Expense Analysis As Of December 31, 2019						
Name	Fee Schedule	Market Value	Estimated Fee Value	Estimated Fee		
Global Equity		\$110,219,074				
Total Domestic Equity		\$74,286,341				
Northern Trust Russell 1000 Index	0.03% of First 50.0 Mil, 0.02% Thereafter	\$63,235,745	\$17,647	0.03%		
RhumbLine S&P 400 Index	0.05% of First 50.0 Mil, 0.04% Thereafter	\$7,439,957	\$3,608	0.05%		
Loomis Sayles Small Cap Value Equity	0.70% of First 30.0 Mil, 0.60% of Next 20.0 Mil, 0.50% Thereafter	\$3,610,640	\$25,274	0.70%		
Total International Equity		\$35,932,733				
Total International Developed Market Equity		\$23,734,832				
WCM Focused Growth International	0.75% of Assets	\$12,729,160	\$95,469	0.75%		
Hexavest International Equity	0.60% of First 10.0 Mil, 0.50% of Next 30.0 Mil, 0.40% Thereafter	\$11,005,672	\$65,028	0.59%		
Total International Emerging Market Equity		\$12,197,900				
DFA Emerging Markets Value Fund	0.57% of Assets	\$5,531,312	\$31,528	0.57%		
GQG Partners Emerging Markets Equity	0.65% of Assets	\$6,666,589	\$43,333	0.65%		
Total Fixed Income		\$56,021,072				
Total Investment Grade Bonds		\$27,242,734				
Northern Trust 1-5 Year Credit Bond Index Fund	0.10% of First 25.0 Mil, 0.06% of Next 75.0 Mil, 0.05% Thereafter	\$4,400,611	\$4,401	0.10%		
Northern Trust Barclays Aggregate Bond Index	0.06% of First 100.0 Mil, 0.03% Thereafter	\$22,842,124	\$13,705	0.06%		
Total TIPS		\$7,086,210				
IR&M 1-10 Year Index	0.08% of Assets	\$7,086,210	\$5,669	0.08%		

## City of Ann Arbor Retiree Health Care Benefit Plan & Trust (VEBA)

### Total Fund Aggregate | As of December 31, 2019

Fee Schedule	Market Value	Estimated Fee Value	Estimated Fee
	\$11,970,959		
0.30% of Assets	\$9,046,804	\$27,140	0.30%
1.5% management fee; 20% carried interest	\$1,866,651		
	\$1,057,504		
	\$5,908,064		
0.50% of Assets	\$5,908,064	\$29,540	0.50%
	\$3,813,104		
0.89% of Assets	\$3,813,104	\$33,937	0.89%
	\$18,423,101		
0.12% of Assets	\$6,913,129	\$8,296	0.12%
1.10% of First 10.0 Mil, 1.00% of Next 15.0 Mil	\$7,284,264	\$80,127	1.10%
0.90% on gross cost during investment period; 0.60% thereafter; 8% preferred return and 20% carried interest	\$1,668,196		
Annual asset mgmt. fee of 0.9% of the gross cost of investments during the Acquisition Period, dropping to 0.6% after the Acquisition Period, with gross cost reduced by leverage in excess of 65%	\$2,136,609		
1.50% of Assets	\$420,903	\$6,314	1.50%
	\$2,485,119		
0.99% of Assets	\$2,485,119	\$24,603	0.99%
	<ul> <li>0.30% of Assets</li> <li>1.5% management fee; 20% carried interest</li> <li>0.50% of Assets</li> <li>0.89% of Assets</li> <li>0.12% of Assets</li> <li>0.12% of Assets</li> <li>1.10% of First 10.0 Mil,</li> <li>1.00% of Next 15.0 Mil</li> <li>0.90% on gross cost during investment period; 0.60% thereafter; 8% preferred return and 20% carried interest</li> <li>Annual asset mgmt. fee of 0.9% of the gross cost of investments during the Acquisition Period, dropping to 0.6% after the Acquisition Period, with gross cost reduced by leverage in excess of 65%</li> <li>1.50% of Assets</li> </ul>	\$11,970,959           0.30% of Assets         \$9,046,804           1.5% management fee; 20% carried interest         \$1,866,651           1.5% management fee; 20% carried interest         \$1,866,651           0.50% of Assets         \$1,057,504           0.50% of Assets         \$5,908,064           0.50% of Assets         \$5,908,064           0.50% of Assets         \$3,813,104           0.89% of Assets         \$3,813,104           0.12% of Assets         \$6,913,129           1.10% of First 10.0 Mil,         \$7,284,264           0.90% on gross cost during investment         \$1,668,196           20% carried interest         \$1,668,196           Annual asset mgmt. fee of 0.9% of the         \$1,668,196           20% carried interest         \$1,668,196           Annual asset mgmt. fee of 0.9% of the         \$2,136,609           after the Acquisition Period, with gross         \$2,136,609           after the Acquisition Period, with gross         \$420,903           65%         \$420,903           1.50% of Assets         \$420,903	\$11,970,959           0.30% of Assets         \$9,046,804         \$27,140           1.5% management fee; 20% carried interest         \$1,866,651         \$1,057,504           1.5% management fee; 20% carried interest         \$1,057,504         \$1,057,504           0.50% of Assets         \$5,908,064         \$29,540           0.50% of Assets         \$5,908,064         \$29,540           0.50% of Assets         \$5,908,064         \$33,937           0.89% of Assets         \$3,813,104         \$33,937           0.89% of Assets         \$6,913,129         \$8,296           1.10% of First 10.0 Mil,         \$7,284,264         \$80,127           0.09% on gross cost during investment period; 0.60% thereafter; 8% preferred return and         \$1,668,196         \$1,668,196           20% carried interest         \$1,668,196         \$2,136,609         \$2,136,609           Annual asset mgmt. fee of 0.9% of the gross cost of investments during the Acquisition Period, dropping to 0.6% after the Acquisition Period, with gross cost reduced by leverage in excess of 65%         \$420,903         \$6,314           1.50% of Assets         \$420,903         \$6,314

## City of Ann Arbor Retiree Health Care Benefit Plan & Trust (VEBA)

### Total Fund Aggregate | As of December 31, 2019

Name	Fee Schedule	Market Value	Estimated Fee Value	Estimated Fee
Total Private Equity		\$3,009,148		
Strategic Investors Fund VIII	The management fee is based on the investor's commitment. 0.95% < \$15 million; 0.85% on commitments between \$15 million and \$30 million; 0.75% > \$30 million. Blended fee of 86bps over 12 years	\$1,917,175		
Ironsides Direct Investment Fund V, L.P.		\$1,069,283		
Arboretum Ventures V, L.P.		\$22,690		
Total Cash		\$7,801,124		
NT Cash		\$7,801,124		
Total		\$197,958,638	\$515,619	0.26%