

Investment Performance Review
Period Ending December 31, 2018

Southfield Fire & Police Retirement System



As we start 2019, we first want to say “Thank you” for giving AndCo the opportunity to serve you. On behalf of our entire organization, we are extremely grateful for our client partnerships and we will continue working hard to maintain your trust and confidence. Our mission statement reads – “To represent the sole interest of our clients by redefining independence”. We’re happy to report we remain steadfast in this core belief and continue to build an organization and service model that is singularly focused and independent. This helps ensure all recommendations are truly in the best interest of our valued clients. We believe this approach will drive value for our client partnerships long into the future.

AndCo also remains committed to delivering high quality, customized services. As we start 2019, we are 89 employees strong advising approximately \$90 billion in client assets - both record highs for AndCo. In 2018 we hired 7 new team members including one consultant, two research professionals, one additional compliance officer, one technology administrator and two team members within our client solutions group. All hires were made to better service our clients.

2019 will represent another year of reinvestment in the organization to better serve our clients and make AndCo stronger. For example, we have already hired a new Senior Research Analyst bringing our dedicated research team to 15 professionals. As 2019 progresses, we are targeting additional hires in research, software development, content creation and our client solutions group. We will also be partnering with an external firm this year to conduct an in-depth client assessment to help ensure we are meeting the evolving needs of our clients and exceeding their service expectations. There will be more information regarding this survey from the firm and your consultant over the coming months.

Finally, we just completed our annual Firmwide retreat. This retreat was a great opportunity for our firm to spend time together with colleagues and get a clear understanding of where the company is going, and more importantly, why we’re headed in that direction. Since the inception of AndCo, the idea has been to make the firm a multigenerational organization owned and managed by its employees. As a result, since 2015, along with the strategic elements of our annual retreat, we also started the process of announcing new partners of the firm to foster this succession plan and today we have 8 partners controlling 100% of the company.

The evolution of our firm would not be possible without great partners like you. Our name reminds us who we work for every day: “Our Client” &Co. You will always be first in our service approach. As we continue to discuss updates with our firm, please know every decision is made by asking “How does this benefit our clients?” If it doesn’t benefit you, we don’t do it, it’s that simple. We know our clients are facing many challenges and we want to be there to help get you through all environments. We are honored and humbled you have chosen AndCo as your partner. We don’t take that relationship for granted and will continue to work tirelessly to exceed your expectations.

On behalf of AndCo, thank you for your valued partnership and the opportunity to serve you.



Mike Welker, CFA®
President/CEO

<u>Equities</u>	<u>Index Returns (%)</u>					
	<u>Month</u>	<u>3 M</u>	<u>YTD</u>	<u>1 Year</u>	<u>3 Yr Ann</u>	<u>5 Yr Ann</u>
S&P 500 Total Return	(9.03)	(13.52)	(4.38)	(4.38)	9.25	8.49
Russell Midcap Index	(9.93)	(15.38)	(9.08)	(9.08)	7.02	6.24
Russell 2000 Index	(11.88)	(20.21)	(11.03)	(11.03)	7.34	4.40
Russell 1000 Growth Indx	(8.60)	(15.89)	(1.52)	(1.52)	11.14	10.40
Russell 1000 Value Index	(9.61)	(11.73)	(8.28)	(8.28)	6.93	5.93
Russell 3000 Index	(9.31)	(14.31)	(5.25)	(5.25)	8.95	7.90
MSCI EAFE NR	(4.85)	(12.54)	(13.79)	(13.79)	2.87	0.53
MSCI EM NR	(2.66)	(7.47)	(14.58)	(14.58)	9.24	1.65

<u>Russell Indices Style Returns</u>					
	<u>V</u>	<u>B</u>	<u>G</u>		
	<u>YTD</u>	<u>2017</u>	<u>2016</u>		
L	-8.3	-4.8	-1.5	L	13.6
M	-12.3	-9.1	-4.8	M	13.3
S	-12.9	-11.0	-9.3	S	7.8

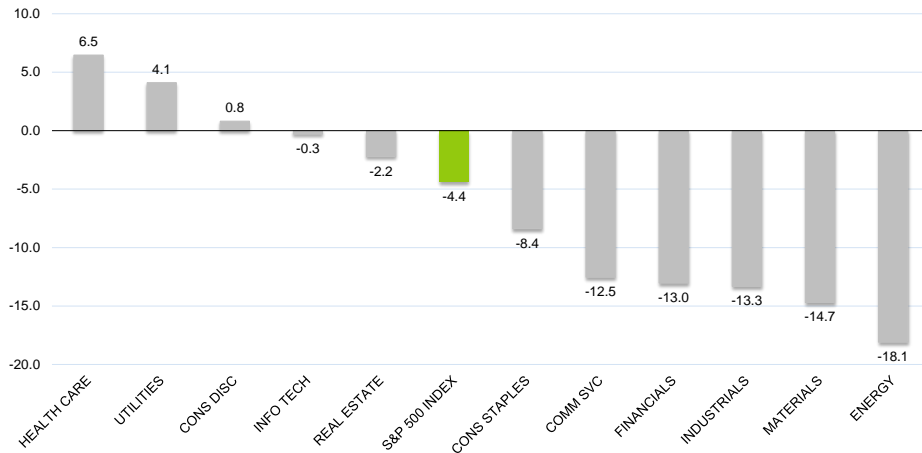
<u>Fixed Income</u>	<u>Index Returns (%)</u>					
	<u>Month</u>	<u>3 M</u>	<u>YTD</u>	<u>1 Year</u>	<u>Mod. Adj. Duration</u>	<u>Yield to Worst</u>
U.S. Aggregate	1.84	1.64	0.01	0.01	5.87	3.28
U.S. Corporate Investment Grade	1.47	(0.18)	(2.51)	(2.51)	7.10	4.20
U.S. Corporate High Yield	(2.14)	(4.53)	(2.08)	(2.08)	3.96	7.95
Global Aggregate	2.02	1.20	(1.20)	(1.20)	6.96	2.03

<u>Currencies</u>	<u>Levels</u>		
	<u>12/31/18</u>	<u>12/31/17</u>	<u>12/31/16</u>
Euro Spot	1.15	1.20	1.05
British Pound Spot	1.28	1.35	1.23
Japanese Yen Spot	109.69	112.69	116.96
Swiss Franc Spot	0.98	0.97	1.02

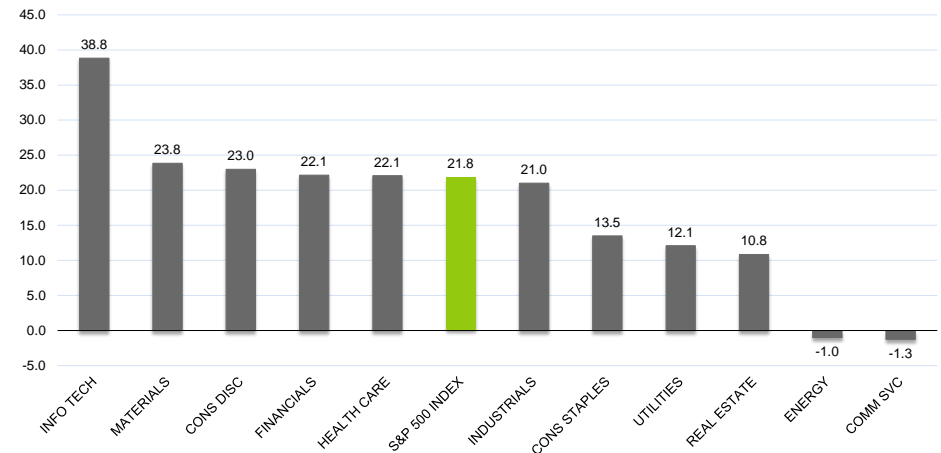
<u>Key Rates</u>	<u>Levels (%)</u>				
	<u>12/31/18</u>	<u>12/31/17</u>	<u>12/31/16</u>	<u>12/31/15</u>	<u>12/31/14</u>
3 Month	2.35	1.38	0.50	0.16	0.04
US 2 Year	2.49	1.88	1.19	1.05	0.66
US 10 Year	2.68	2.41	2.44	2.27	2.17
US 30 Year	3.01	2.74	3.07	3.02	2.75
ICE LIBOR USD 3M	2.81	1.69	1.00	0.61	0.26
Euribor 3 Month ACT/360	(0.31)	(0.33)	(0.32)	(0.13)	0.08
Bankrate 30Y Mortgage Rates Na	4.51	3.85	4.06	3.90	3.99
Prime	5.50	4.50	3.75	3.50	3.25

<u>Commodities</u>	<u>Levels</u>		
	<u>12/31/18</u>	<u>12/31/17</u>	<u>12/31/16</u>
Oil	45.41	57.40	56.24
Gasoline	2.26	2.49	2.34
Natural Gas	2.94	3.06	3.16
Gold	1,281.30	1,337.70	1,187.30
Silver	15.54	17.57	16.50
Copper	263.10	335.95	252.20
Corn	375.00	393.25	397.50
BBG Commodity TR Idx	159.72	179.96	176.94

YTD Sector Returns



2017 Sector Returns

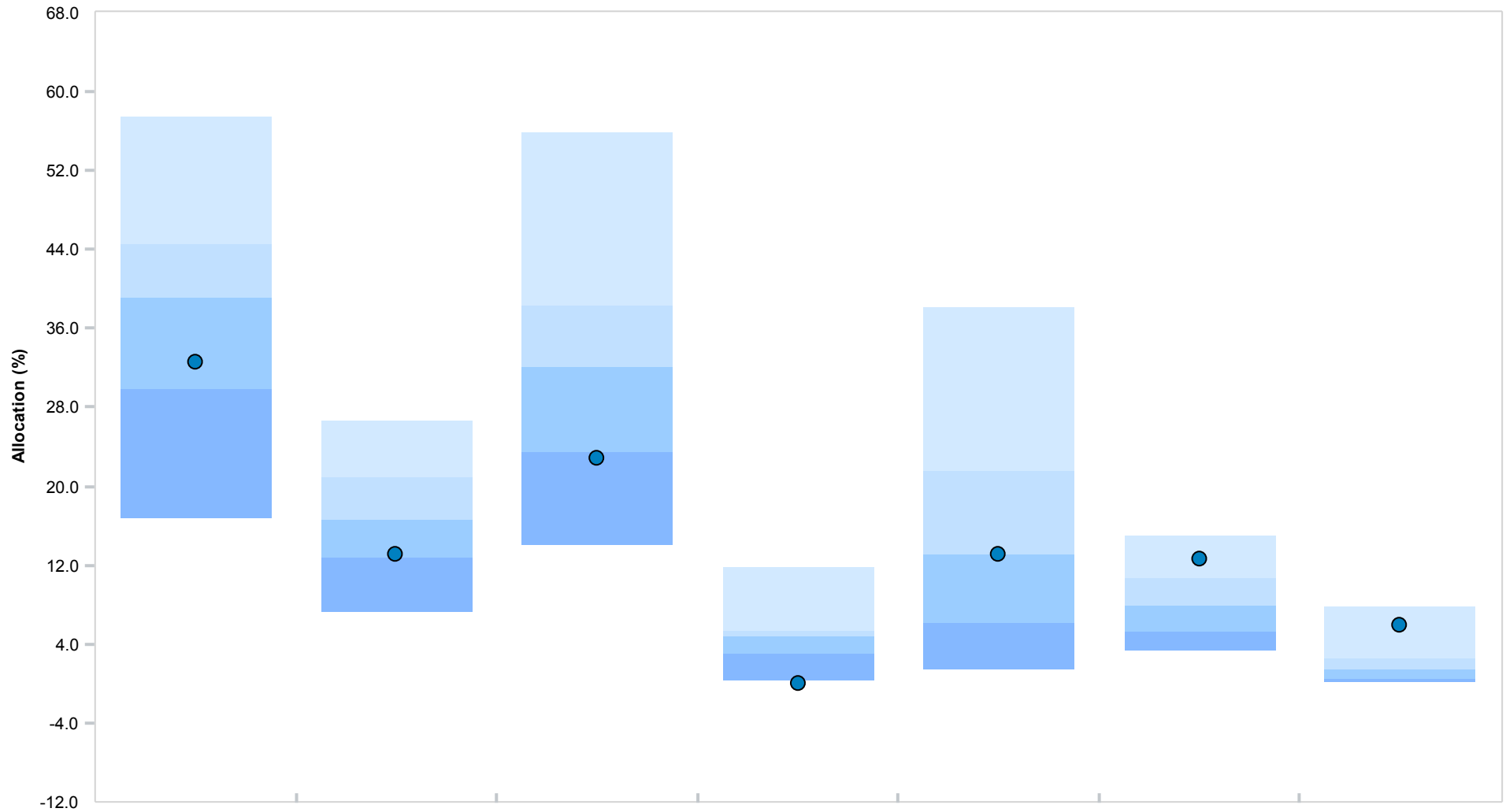


Market Summary:

The US equity market plummeted during the 4th quarter and volatility returned. The sell off may be attributed to several factors, including the Federal Reserve's forecasts for several rate increases in 2019, the slowing global economy, persistent trade tensions with China, politics (midterm elections and federal debt ceiling standoff), and other concerns. The decline was broad based with most sectors falling by double digits; larger companies survived the best (S&P 500 down 13.5%), followed by mid-caps and small-caps. The international equity markets fared slightly better (MSCI EAFE -12.5% and MSCI Emerging Markets -7.5%); however, these markets did not keep pace with the US markets over the summer and significantly lagged in 2018. The fixed income market managed a modest gain during the quarter (BB US Aggregate 1.6%). Treasuries and mortgages led as investors focused on safety; corporate bonds struggled due to their relationship with domestic equities. The Federal Reserve hiked interest rates for a fourth time this year in December and the yield curve continued to flatten (short term rates rising faster than longer term rates); at quarter end the Fed Funds Rate was 2.25% – 2.50%. In late December the Fed softened their language on future rate increases and the equity market rallied.

- Total Fund return of -6.22% was inline with the Policy Index return of -6.14%. While disappointing in relative terms, the Total Fund ranked in the 17th percentile for the quarter.
- For the calendar year, the Total Fund returned -3.64%, inline with the policy index. The return ranked in the 37th percentile.
- The primary driver of the strong rankings were outperformance vs. indices for Domestic Equity and International Equity.
- Within the Large Cap allocation, the Dividend Aristocrats and Low Volatility funds both had strong quarterly of downside protection. .
- QMA Mid Cap underperformed, returning -18.26% vs. -17.28%. The primary driver of underperformance was an overweight to valuation related factors.
- Morgan Dempsey (Micro Cap Equity) outperformed their benchmark, returning -15.23% vs. -20.75% for the quarter.
- 1607 Capital Partners outperformed their benchmark for the quarter by 1.24%
- Both Domestic Fixed Income managers, Tortoise Credit and Loomis Sayles underperformed their benchmarks for the quarter.
- Nantucket underperformed for the quarter as equity markets were in negative territory. Longer term results remain strong vs. benchmark and peers.
- KStone Partners underperformed their benchmark for the quarter. Long term results remain strong.
- PRISA I and III were inline with their benchmark. PRISA II underperformed by a small margin. Overall , the PRISA funds were the largest positive contributor to returns for the quarter and calendar year.
- JCR Fund III made multiple distributions during the quarter and remains approximately 70% called. JCR Fund IV made a capital call in October and is now just over 22% called.
- Landmark Fund VII had one distribution and a single capital call during the quarter. The fund is now 21% called.
- As of 12/31/2018, the Total Fund is in compliance with Public Act 314. The cash balance at year end was over the maximum limit due to the termination of Brandes. As of the issuance of this report, the cash balance is below the maximum limit.

Plan Sponsor TF Asset Allocation vs. All Public Plans-Total Fund



Parenttheses contain percentile rankings.
Calculation based on quarterly periodicity.



**Comparative Performance Trailing Returns
Southfield Fire & Police Retirement System**

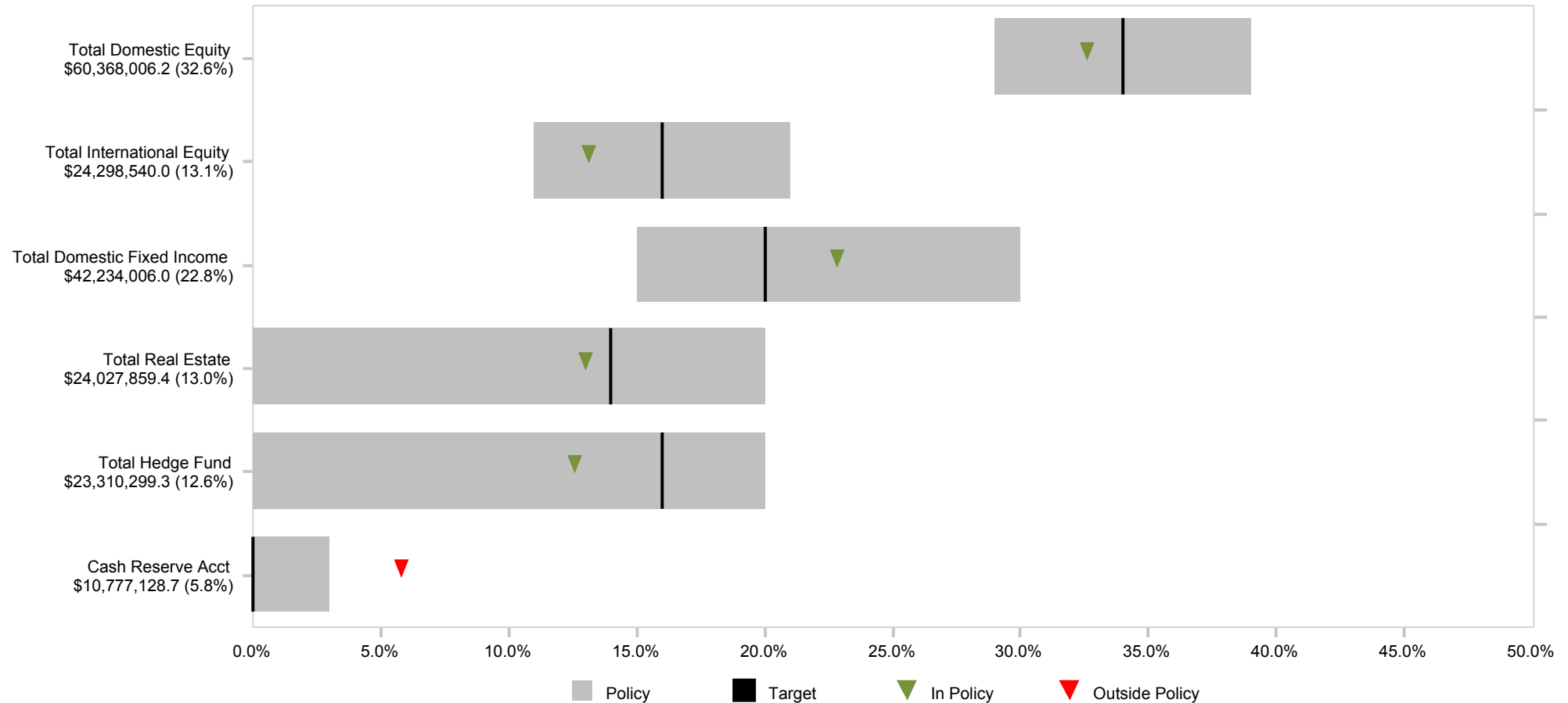
As of December 31, 2018

Comparative Performance									
	QTR	YTD	1 YR	3 YR	5 YR	7 YR	10 YR	Inception	Inception Date
Total Fund	-6.2165	-3.6418	-3.6418	6.4285	5.0213	7.3145	8.4295	7.3650	01/01/1989

Returns for periods greater than one year are annualized.
Returns are expressed as percentages.



Executive Summary



Asset Allocation Compliance

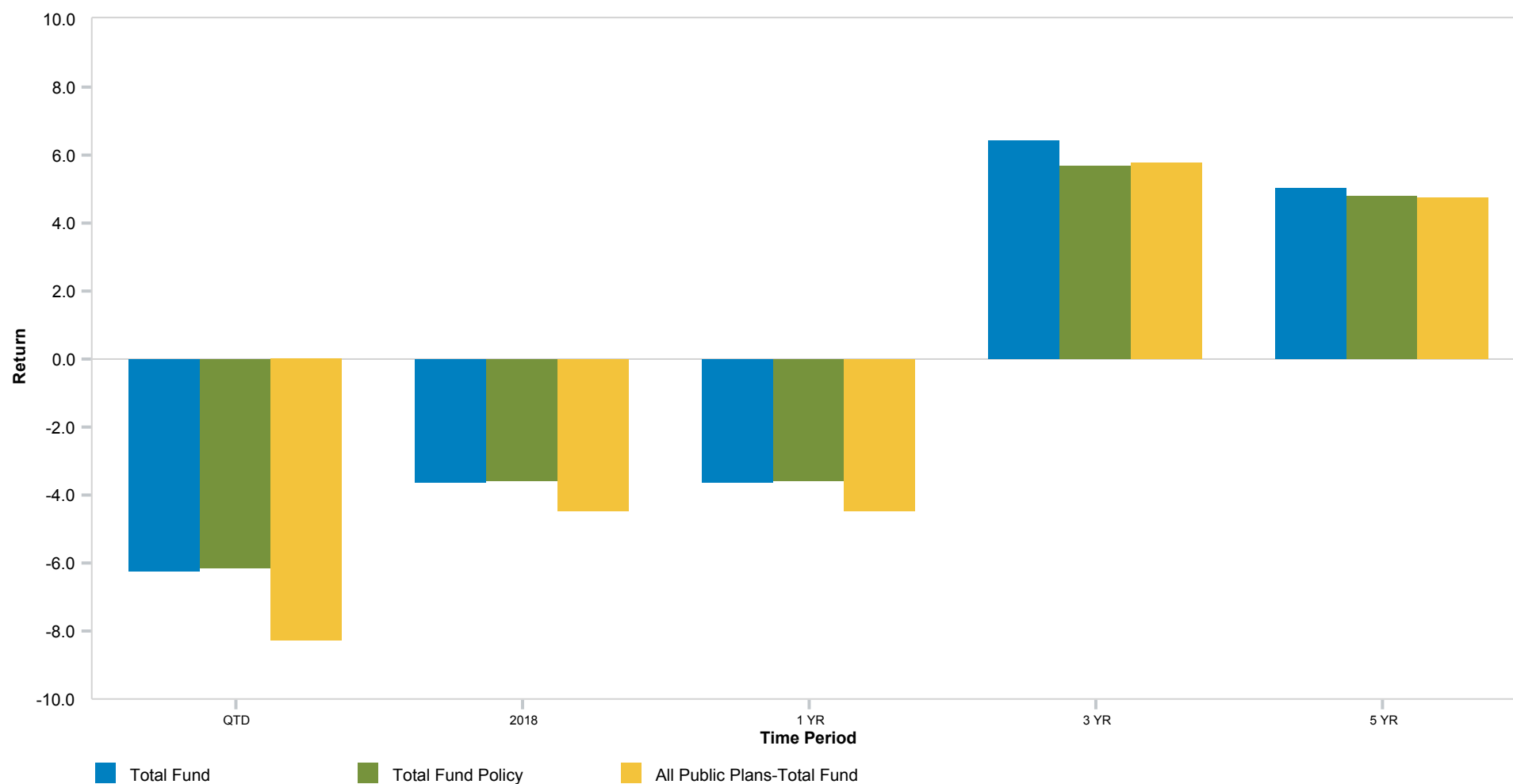
	Asset Allocation \$	Current Allocation (%)	Minimum Allocation (%)	Target Allocation (%)	Maximum Allocation (%)	Min. Rebal. (\$000)	Target Rebal. (\$000)	Max. Rebal. (\$000)
Total Fund	185,015,840	100.0	N/A	100.0	N/A	-	-	-
Total Domestic Equity	60,368,006	32.6	29.0	34.0	39.0	-6,713,413	2,537,379	11,788,171
Total International Equity	24,298,540	13.1	11.0	16.0	21.0	-3,946,798	5,303,994	14,554,786
Total Domestic Fixed Income	42,234,006	22.8	15.0	20.0	30.0	-14,481,630	-5,230,838	13,270,746
Total Real Estate	24,027,859	13.0	0.0	14.0	20.0	-24,027,859	1,874,358	12,975,309
Total Hedge Fund	23,310,299	12.6	0.0	16.0	20.0	-23,310,299	6,292,235	13,692,869
Cash Reserve Acct	10,777,129	5.8	0.0	0.0	3.0	-10,777,129	-10,777,129	-5,226,654



Gain/Loss Summary

	QTD	YTD	1 YR	3 YR	5 YR
Total Fund					
Beginning Market Value	200,987,315	205,832,327	205,832,327	186,930,247	196,215,449
Net Contributions	-2,776,396	-12,093,199	-12,093,199	-34,097,621	-51,614,863
Gain/Loss	-13,195,079	-8,723,288	-8,723,288	32,183,214	40,415,254
Ending Market Value	185,015,840	185,015,840	185,015,840	185,015,840	185,015,840

Comparative Performance



Asset Allocation by Segment
Southfield Fire & Police Retirement System
As of December 31, 2018

Asset Allocation Attributes

	Domestic Equity		International Equity		Domestic Fixed Income		Real Estate		Hedge Fund		Cash Equivalent		Total Fund	
	(\$)	%	(\$)	%	(\$)	%	(\$)	%	(\$)	%	(\$)	%	(\$)	%
Total Fund	59,888,220	32.37	23,515,063	12.71	41,997,281	22.70	24,027,859	12.99	23,282,812	12.58	12,304,605	6.65	185,015,840	100.00
Total Domestic Equity	59,888,220	99.21	-	-	-	-	-	-	-	-	479,786	0.79	60,368,006	32.63
LSIA LC 30/70	13,290,014	99.51	-	-	-	-	-	-	-	-	65,676	0.49	13,355,690	7.22
LSIA Dividend Aristocrats	10,037,247	99.23	-	-	-	-	-	-	-	-	77,610	0.77	10,114,857	5.47
LSIA S&P 500 Low Volatility	9,339,170	99.26	-	-	-	-	-	-	-	-	69,400	0.74	9,408,570	5.09
NTGI S&P Midcap 400 - Lending	-	-	-	-	-	-	-	-	-	-	-	-	-	0.00
QMA US MC Equity	17,444,239	99.52	-	-	-	-	-	-	-	-	83,487	0.48	17,527,726	9.47
Morgan Dempsey	9,777,550	98.16	-	-	-	-	-	-	-	-	183,614	1.84	9,961,164	5.38
Total International Equity	-	-	23,515,063	96.78	-	-	-	-	-	-	783,477	3.22	24,298,540	13.13
1607 Capital Partners	-	-	23,515,063	96.78	-	-	-	-	-	-	783,477	3.22	24,298,540	13.13
Brandes Emerging Mkts	-	-	-	-	-	-	-	-	-	-	-	-	-	0.00
Total Domestic Fixed Income	-	-	-	-	41,997,281	99.44	-	-	-	-	236,725	0.56	42,234,006	22.83
Avignon - Mortgage Loan	-	-	-	-	3,420,002	100.00	-	-	-	-	-	-	3,420,002	1.85
Tortoise Credit	-	-	-	-	19,346,678	98.79	-	-	-	-	236,725	1.21	19,583,403	10.58
Loomis Sayles Intermediate Duration	-	-	-	-	19,230,601	100.00	-	-	-	-	-	-	19,230,601	10.39
Total Real Estate	-	-	-	-	-	-	24,027,859	100.00	-	-	-	-	24,027,859	12.99
PRISA I	-	-	-	-	-	-	6,246,572	100.00	-	-	-	-	6,246,572	3.38
PRISA II	-	-	-	-	-	-	5,274,879	100.00	-	-	-	-	5,274,879	2.85
PRISA III	-	-	-	-	-	-	5,571,683	100.00	-	-	-	-	5,571,683	3.01
JCR Capital Fund 3 B	-	-	-	-	-	-	5,047,426	100.00	-	-	-	-	5,047,426	2.73
JCR Income Plus IV	-	-	-	-	-	-	1,034,490	100.00	-	-	-	-	1,034,490	0.56
Landmark Real Estate Partners VIII, L.P.	-	-	-	-	-	-	852,809	100.00	-	-	-	-	852,809	0.46
Total Hedge Fund	-	-	-	-	-	-	-	-	23,282,812	99.88	27,488	0.12	23,310,299	12.60
Nantucket Institutional	-	-	-	-	-	-	-	-	12,158,980	100.00	-	-	12,158,980	6.57
Fintan Partners	-	-	-	-	-	-	-	-	-	-	27,488	100.00	27,488	0.01
KStone Partners	-	-	-	-	-	-	-	-	11,123,832	100.00	-	-	11,123,832	6.01
Cash Reserve Acct	-	-	-	-	-	-	-	-	-	-	10,777,129	100.00	10,777,129	5.82



Comparative Performance Trailing Returns
Southfield Fire & Police Retirement System

As of December 31, 2018

Comparative Performance

	QTR		YTD		1 YR		3 YR		5 YR		7 YR		10 YR		Inception	Inception Date	
Total Fund	-6.22	(17)	-3.64	(37)	-3.64	(37)	6.43	(26)	5.02	(36)	7.31	(55)	8.43	(52)	7.36	(91)	01/01/1989
Total Fund Policy	-6.14	(17)	-3.60	(36)	-3.60	(36)	5.69	(54)	4.79	(49)	7.32	(55)	9.02	(25)	8.12	(58)	
All Public Plans-Total Fund Median	-8.30		-4.44		-4.44		5.77		4.72		7.45		8.47		8.30		
Population	507		501		501		483		465		449		411		42		
Total Fund (Net of Fees)	-6.34		-4.11		-4.11		5.86		4.34		N/A		N/A		4.34		01/01/2014
Total Domestic Equity	-13.14	(20)	-7.24	(51)	-7.24	(51)	8.40	(45)	N/A		N/A		N/A		8.40	(45)	01/01/2016
Russell 3000 Index	-14.30	(34)	-5.24	(38)	-5.24	(38)	8.97	(37)	7.91	(32)	12.46	(39)	13.18	(55)	8.97	(37)	
IM U.S. Equity (SA+CF) Median	-16.00		-7.15		-7.15		8.05		6.50		11.91		13.35		8.05		
Population	2,248		2,241		2,241		2,185		2,095		1,964		1,764		2,185		
Total International Equity	-8.85	(29)	-13.63	(36)	-13.63	(36)	7.19	(30)	N/A		N/A		N/A		7.19	(30)	01/01/2016
MSCI AC World ex USA (Net)	-11.46	(46)	-14.20	(43)	-14.20	(43)	4.48	(55)	0.68	(80)	4.85	(80)	6.57	(86)	4.48	(55)	
IM International Equity (SA+CF) Median	-11.87		-14.86		-14.86		4.84		2.07		6.66		8.57		4.84		
Population	1,015		1,003		1,003		956		869		763		633		956		
Total Fixed Income	1.03	(40)	0.84	(43)	0.84	(43)	2.92	(44)	N/A		N/A		N/A		2.92	(44)	01/01/2016
Blmbg. Barc. U.S. Aggregate Index	1.64	(14)	0.01	(60)	0.01	(60)	2.06	(70)	2.52	(62)	2.10	(73)	3.48	(71)	2.06	(70)	
IM U.S. Fixed Income (SA+CF) Median	0.69		0.43		0.43		2.61		2.84		2.94		4.52		2.61		
Population	1,343		1,340		1,340		1,298		1,249		1,179		1,002		1,298		
Total Real Estate	1.18	(95)	7.66	(84)	7.66	(84)	9.91	(30)	N/A		N/A		N/A		9.91	(30)	01/01/2016
NCREIF Fund Index-ODCE (VW)	1.76	(61)	8.35	(63)	8.35	(63)	8.24	(70)	10.41	(65)	10.99	(67)	7.00	(61)	8.24	(70)	
IM U.S. Open End Private Real Estate (SA+CF) Median	1.80		8.71		8.71		8.66		10.82		11.57		7.34		8.66		
Population	21		21		21		20		20		20		19		20		
Total Hedge Fund	-4.74	(61)	0.32	(6)	0.32	(6)	3.36	(10)	N/A		N/A		N/A		3.36	(10)	01/01/2016
HFRI FOF: Diversified Index	-4.68	(59)	-3.37	(28)	-3.37	(28)	1.23	(46)	1.38	(24)	2.93	(32)	3.17	(47)	1.23	(46)	
IM Alternative Multi-Strategy (MF) Median	-4.16		-4.42		-4.42		0.91		0.55		2.60		3.12		0.91		
Population	215		204		204		163		85		41		17		163		

Returns for periods greater than one year are annualized.
Returns are expressed as percentages.



**Comparative Performance Trailing Returns
Southfield Fire & Police Retirement System**

As of December 31, 2018

	QTR	YTD	1 YR	3 YR	5 YR	7 YR	10 YR	Inception	Inception Date
Total Domestic Equity	-13.14	-7.24	-7.24	8.40	N/A	N/A	N/A	8.40	01/01/2016
LSIA LC 30/70	-13.04 (20)	-6.21 (64)	-6.21 (64)	N/A	N/A	N/A	N/A	3.13 (86)	05/01/2017
S&P 500 Equal Weighted	-13.90 (59)	-7.64 (89)	-7.64 (89)	8.03 (88)	7.14 (91)	12.36 (75)	14.95 (11)	2.07 (93)	
IM U.S. Large Cap Enhanced Index Equity (SA+CF) Median	-13.72	-5.57	-5.57	9.03	8.44	12.96	13.36	4.82	
Population	56	56	56	55	54	52	51	56	
LSIA Dividend Aristocrats	-8.68 (6)	-2.71 (15)	-2.71 (15)	9.89 (17)	9.21 (20)	N/A	N/A	12.95 (23)	07/01/2012
S&P 500 Dividend Aristocrats Index TR	-8.63 (6)	-2.73 (15)	-2.73 (15)	9.81 (19)	9.12 (21)	13.28 (25)	14.63 (11)	12.88 (24)	
IM U.S. Large Cap Core Equity (SA+CF) Median	-13.83	-5.20	-5.20	8.47	8.15	12.63	13.05	12.17	
Population	242	242	242	236	229	214	192	215	
LSIA S&P 500 Low Volatility	-5.18 (1)	0.19 (6)	0.19 (6)	N/A	N/A	N/A	N/A	8.37 (28)	01/01/2017
S&P 500 Low Volatility Index TR	-5.22 (1)	0.27 (6)	0.27 (6)	9.12 (36)	9.69 (14)	11.66 (74)	12.88 (55)	8.50 (26)	
IM U.S. Large Cap Core Equity (SA+CF) Median	-13.83	-5.20	-5.20	8.47	8.15	12.63	13.05	7.37	
Population	242	242	242	236	229	214	192	239	
QMA US MC Equity	-18.26 (82)	N/A	N/A	N/A	N/A	N/A	N/A	-16.07 (93)	06/01/2018
S&P MidCap 400 Index	-17.28 (66)	-11.08 (61)	-11.08 (61)	7.66 (47)	6.03 (64)	11.25 (70)	13.68 (69)	-13.72 (68)	
IM U.S. Mid Cap Core Equity (SA+CF) Median	-17.21	-11.02	-11.02	7.65	6.10	11.53	14.16	-13.65	
Population	51	51	51	51	47	42	40	51	
Morgan Dempsey	-15.23 (5)	-7.73 (35)	-7.73 (35)	10.21 (43)	N/A	N/A	N/A	3.63 (71)	04/01/2014
40/60 R2000V/Russell Micro	-20.75 (54)	-12.96 (68)	-12.96 (68)	6.47 (75)	3.33 (77)	10.25 (81)	11.22 (94)	2.97 (77)	
IM U.S. Micro Cap Equity (SA+CF) Median	-20.44	-10.69	-10.69	9.09	4.91	12.64	15.33	5.21	
Population	61	60	60	56	48	45	40	50	
Total International Equity	-8.85	-13.63	-13.63	7.19	N/A	N/A	N/A	7.19	01/01/2016
1607 Capital Partners	-10.17 (37)	-13.47 (34)	-13.47 (34)	6.80 (34)	2.73 (36)	7.11 (42)	10.04 (29)	5.52 (32)	07/01/2006
MSCI AC World ex USA	-11.41 (45)	-13.78 (38)	-13.78 (38)	4.98 (49)	1.14 (70)	5.33 (73)	7.06 (79)	3.11 (81)	
IM International Equity (SA+CF) Median	-11.87	-14.86	-14.86	4.84	2.07	6.66	8.57	4.55	
Population	1,015	1,003	1,003	956	869	763	633	503	

Returns for periods greater than one year are annualized.
Returns are expressed as percentages.



**Comparative Performance Trailing Returns
Southfield Fire & Police Retirement System**

As of December 31, 2018

	QTR	YTD	1 YR	3 YR	5 YR	7 YR	10 YR	Inception	Inception Date
Total Domestic Fixed Income	1.03	0.84	0.84	2.92	N/A	N/A	N/A	2.92	01/01/2016
Tortoise Credit	1.10 (75)	1.01 (45)	1.01 (45)	2.96 (5)	3.17 (4)	N/A	N/A	3.13 (4)	10/01/2013
Bloomberg Barclays Intermed Aggregate Index	1.80 (11)	0.92 (52)	0.92 (52)	1.72 (81)	2.09 (62)	1.85 (81)	3.13 (79)	1.96 (71)	
IM U.S. Intermediate Duration (SA+CF) Median	1.39	0.95	0.95	1.99	2.16	2.16	3.52	2.11	
Population	151	151	151	150	144	141	125	144	
Loomis Sayles Intermediate Duration	1.14 (73)	0.83 (63)	0.83 (63)	N/A	N/A	N/A	N/A	1.00 (24)	08/01/2016
Bloomberg Barclays Intermediate US Govt/Credit Idx	1.65 (24)	0.88 (57)	0.88 (57)	1.70 (85)	1.86 (87)	1.75 (89)	2.90 (92)	0.32 (95)	
IM U.S. Intermediate Duration (SA+CF) Median	1.39	0.95	0.95	1.99	2.16	2.16	3.52	0.73	
Population	151	151	151	150	144	141	125	150	
PRISA Real Estate Composite	1.69	9.10	9.10	9.77	12.21	12.39	7.31	8.26	07/01/1993
PRISA I	1.83 (40)	8.74 (50)	8.74 (50)	8.33 (53)	10.70 (57)	11.11 (58)	6.85 (72)	6.79 (75)	01/01/2006
NCREIF Fund Index-ODCE (VW)	1.76 (61)	8.35 (63)	8.35 (63)	8.24 (70)	10.41 (65)	10.99 (67)	7.00 (61)	6.92 (60)	
IM U.S. Open End Private Real Estate (SA+CF) Median	1.80	8.71	8.71	8.66	10.82	11.57	7.34	7.19	
Population	21	21	21	20	20	20	19	16	
PRISA II	1.45 (90)	9.44 (32)	9.44 (32)	9.39 (38)	11.94 (32)	12.74 (37)	6.76 (78)	6.46 (86)	01/01/2006
NCREIF Fund Index-ODCE (VW)	1.76 (61)	8.35 (63)	8.35 (63)	8.24 (70)	10.41 (65)	10.99 (67)	7.00 (61)	6.92 (60)	
IM U.S. Open End Private Real Estate (SA+CF) Median	1.80	8.71	8.71	8.66	10.82	11.57	7.34	7.19	
Population	21	21	21	20	20	20	19	16	
PRISA III	1.76 (61)	9.22 (41)	9.22 (41)	12.02 (11)	15.86 (6)	N/A	N/A	15.84 (6)	04/01/2013
NCREIF Fund Index-ODCE (VW)	1.76 (61)	8.35 (63)	8.35 (63)	8.24 (70)	10.41 (65)	10.99 (67)	7.00 (61)	10.99 (66)	
IM U.S. Open End Private Real Estate (SA+CF) Median	1.80	8.71	8.71	8.66	10.82	11.57	7.34	11.66	
Population	21	21	21	20	20	20	19	20	

Returns for periods greater than one year are annualized.
Returns are expressed as percentages.



**Comparative Performance Trailing Returns
Southfield Fire & Police Retirement System**

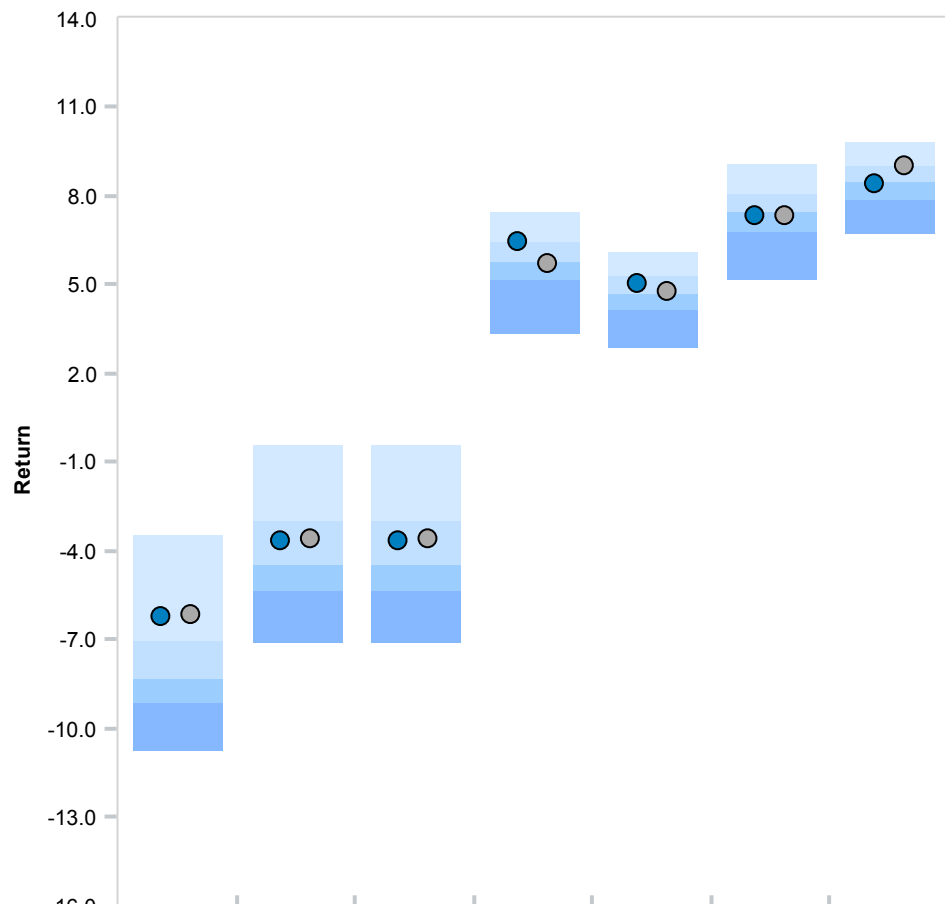
As of December 31, 2018

	QTR	YTD	1 YR	3 YR	5 YR	7 YR	10 YR	Inception	Inception Date
Total Hedge Fund	-4.74	0.32	0.32	3.36	N/A	N/A	N/A	3.36	01/01/2016
Nantucket Institutional	-7.41 (84)	-0.40 (8)	-0.40 (8)	4.47 (4)	5.13 (1)	7.03 (1)	7.64 (8)	4.79 (1)	07/01/2008
HFRI FOF: Diversified Index	-4.68 (59)	-3.37 (28)	-3.37 (28)	1.23 (46)	1.38 (24)	2.93 (32)	3.17 (47)	0.97 (51)	
IM Alternative Multi-Strategy (MF) Median	-4.16	-4.42	-4.42	0.91	0.55	2.60	3.12	0.99	
Population	215	204	204	163	85	41	17	13	
Fintan Partners	0.00 (22)	0.00 (27)	0.00 (27)	-1.50 (100)	N/A	N/A	N/A	-1.35 (100)	10/01/2015
90 Day T-Bill +5%/Yr	1.80 (6)	6.97 (1)	6.97 (1)	6.04 (9)	5.64 (1)	5.47 (1)	5.37 (37)	5.96 (2)	
IM Alternative Credit Focus (MF) Median	-1.75	-1.58	-1.58	3.06	1.71	2.72	4.52	2.62	
Population	253	246	246	213	130	89	47	203	
KStone Partners	-1.64 (47)	1.21 (9)	1.21 (9)	4.18 (27)	N/A	N/A	N/A	3.75 (23)	10/01/2015
90 Day T-Bill +3.5%/Yr	1.43 (7)	5.44 (1)	5.44 (1)	4.53 (23)	4.13 (5)	3.97 (12)	3.87 (65)	4.45 (13)	
IM Alternative Credit Focus (MF) Median	-1.75	-1.58	-1.58	3.06	1.71	2.72	4.52	2.62	
Population	253	246	246	213	130	89	47	203	

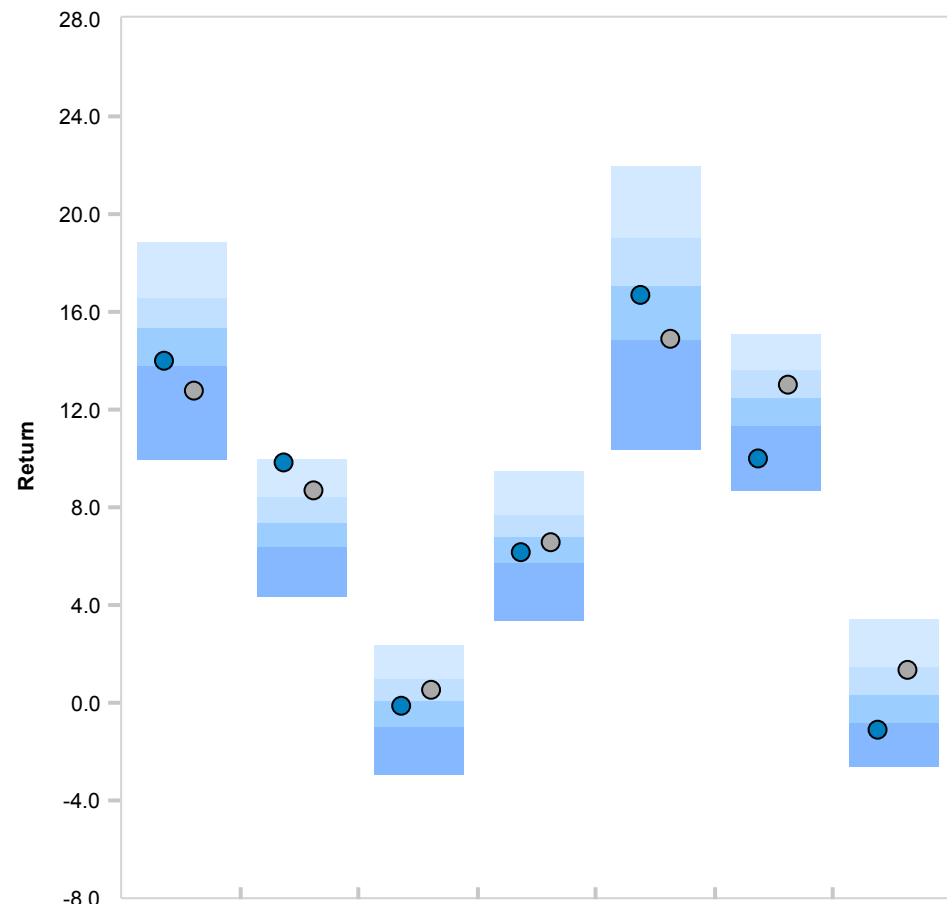
Returns for periods greater than one year are annualized.
Returns are expressed as percentages.



Peer Group Analysis - All Public Plans-Total Fund



Peer Group Analysis - All Public Plans-Total Fund



Comparative Performance

	1 Qtr Ending Sep-2018	1 Qtr Ending Jun-2018	1 Qtr Ending Mar-2018	1 Qtr Ending Dec-2017	1 Qtr Ending Sep-2017	1 Qtr Ending Jun-2017
Investment	1.95 (92)	1.15 (65)	-0.37 (58)	3.78 (45)	3.19 (69)	2.84 (57)
Index	2.35 (83)	0.87 (79)	-0.52 (68)	3.62 (57)	2.95 (84)	2.27 (85)
Median	3.09	1.43	-0.27	3.71	3.43	2.93



Fund Information

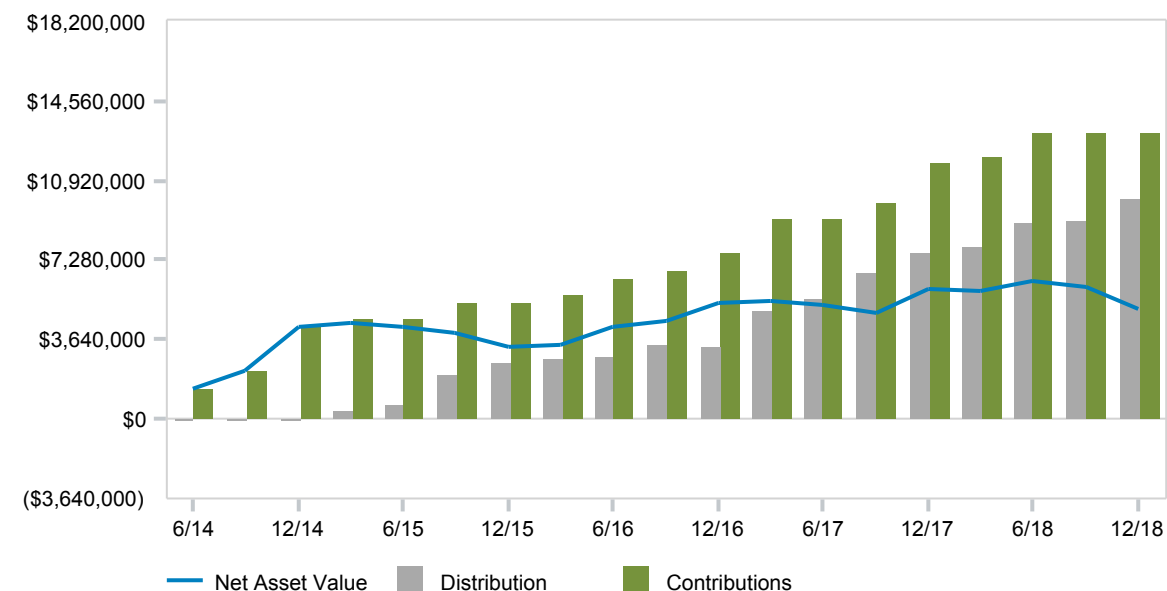
Type of Fund:	Direct	Vintage Year:	2014
Strategy Type:	Value-Add Real Estate	Management Fee:	1.50% on Committed Capital plus 20% after 9% Preferred Return
Size of Fund:	329,500,000	Preferred Return:	9.00%
Inception:	06/02/2014	General Partner:	JCR Capital
Final Close:	01/14/2016		
Investment Strategy:	In line with the prior JCR funds, Fund III B is credit-focused with a mandate of protecting principal while providing investors with attractive risk adjusted returns, including current yield and profit participation components. Fund III B's investment strategy is to provide capital to middle market sponsors for value-add, opportunistic and special situations. The fund targets a variety of asset classes and typically provides high leverage senior debt, mezzanine debt, preferred equity, joint venture equity and programmatic joint venture facilities.		

Cash Flow Summary

Capital Committed:	\$10,000,000
Capital Contributed:	\$7,005,107
Management Fees:	\$526,338
Expenses:	\$232
Catch Up Interest:	-
Remaining Capital Commitment:	\$2,994,893

Distributions (Income + Return of Capital):	\$10,112,148
Market Value:	\$5,047,426
Inception Date:	06/02/2014
Inception IRR:	10.91
TVPI:	1.14
DPI:	0.75

Cash Flow Analysis



Fund Information

Type of Fund:	Partnership	Vintage Year:	2017
Strategy Type:	Value-Add Real Estate	Management Fee:	1.50%
Size of Fund:	216,495,000	Preferred Return:	8.00% Incentive Fee 20.00%
Inception:	10/20/2017	General Partner:	JCR Capital Investment Company, LLC
Final Close:	TBD		

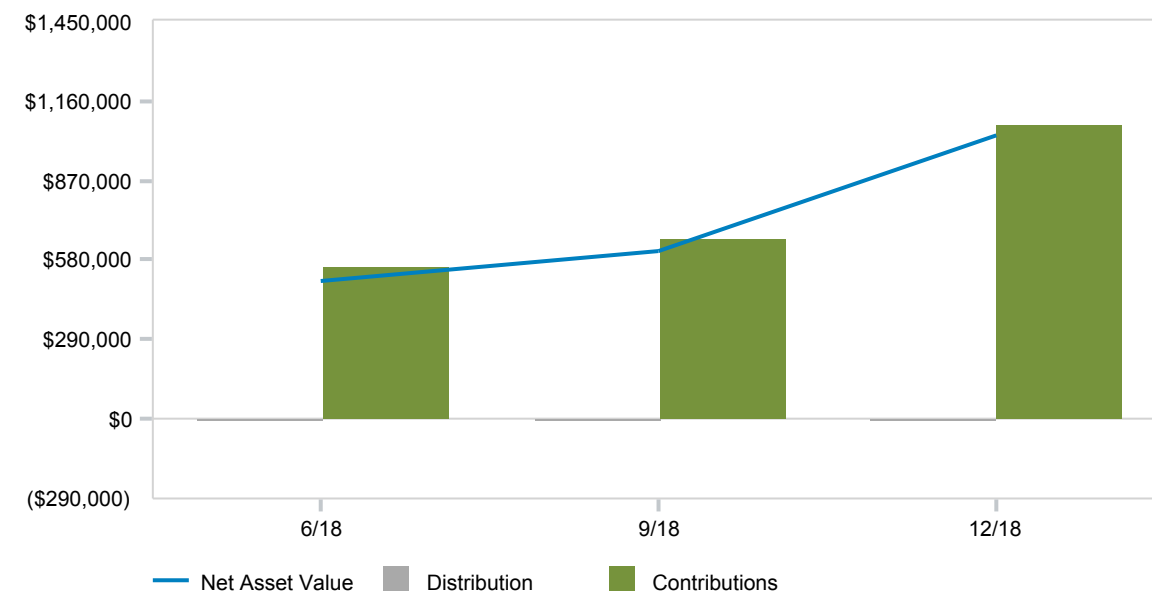
Investment Strategy: The JCR Income Plus Fund IV, L.P. (the "Fund" or "Fund IV") will seek to provide high current returns as well as long-term capital appreciation to its investors by providing short-term, customized capital solutions to middle market commercial real estate operators for value-add, underperforming, undermanaged and opportunistic properties. Fund IV will seek to invest in a diversified portfolio which will primarily consist of high yield debt, participating debt, structured preferred equity and structured equity positions primarily in cash flowing commercial real estate properties in the United States. The Fund will seek to invest in a variety of property types including multifamily, industrial, office, retail and unique middle market special situations. The Fund will generally seek to make investments between \$5 million and \$15 million in large liquid markets in the U.S. with durations ranging from six to 36 months. Fund IV will have a total target capitalization of \$300 million, with over \$14 million being committed by JCR affiliates. To date, Fund IV has \$225 million in total commitments, and has made 8 investments representing \$36 million in investment commitments.

Cash Flow Summary

Capital Committed:	\$5,000,000
Capital Contributed:	\$1,074,192
Management Fees:	-
Expenses:	-
Catch Up Interest:	-
Remaining Capital Commitment:	\$3,925,808

Distributions (Income + Return of Capital):	\$459
Market Value:	\$1,034,490
Inception Date:	05/04/2018
Inception IRR:	-5.71
TVPI:	0.96
DPI:	0.00

Cash Flow Analysis



Fund Information

Type of Fund:	Partnership	Vintage Year:	2016
Strategy Type:	Secondaries	Management Fee:	1.00%
Size of Fund:	2,647,000,000,000	Preferred Return:	8.00%
Inception:	12/15/2016	General Partner:	Landmark Real Estate Fund-GP VIII, L.P.
Final Close:	Anticipated March 2018		
Investment Strategy:	Landmark Real Estate Partners VIII, L.P., a Delaware limited partnership (the "Partnership" or the "Fund"), is being established to provide investors access to a diversified private equity portfolio of real estate related investments, primarily through secondary market transactions. The Fund expects to make secondary investments principally in various types of real estate and real estate related entities, such as commingled real estate funds, limited partnerships, joint ventures, real estate operating companies and non-traded REIT vehicles.		

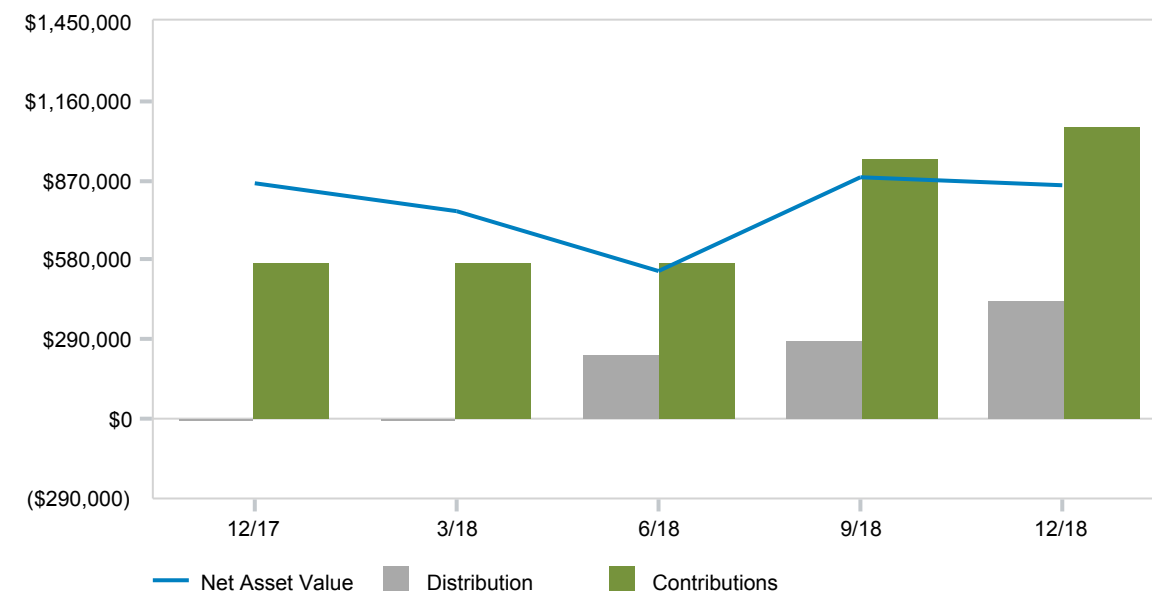
Cash Flow Summary

Capital Committed:	\$5,000,000
Capital Contributed:	\$1,053,192
Management Fees:	-
Expenses:	-
Catch Up Interest:	\$11,138
Remaining Capital Commitment:	\$3,946,808

Distributions (Income + Return of Capital):	\$430,858
Market Value:	\$852,809

Inception Date:	12/21/2017
Inception IRR:	42.42
TVPI:	1.22
DPI:	0.41

Cash Flow Analysis



Southfield Fire and Police Retirement System
Total Fund Asset Allocation Compliance Summary

December 31, 2018

Total Portfolio Compliance Summary							
	December 31, 2018 Market Value \$	Current Allocation %	IPS Target Allocation %	IPS Range Allocation %	Act 314 Limit %	Compliance within Ranges	Compliance w/314 Limits
Total Portfolio (excluding Unfunded Commitments)	185,015,839.51	100.0%					
Total Equity (14)	84,666,546.16	45.8%	50.0%	40.0% - 70.0%	70.0%	YES	YES
Domestic Equity (14)	60,368,006.19	32.6%	34.0%	29.0% - 39.0%	70.0%	YES	YES
International Equity (14)	24,298,539.97	13.1%	16.0%	11.0% - 21.0%	70.0%	YES	YES
Total US Fixed Income (17 & 17.1.a.iii)	42,234,006.00	22.8%	20.0%	20.0% - 50.0%	100.0%	YES	YES
US Investment Grade Fixed Income (17)	39,234,005.56	21.2%	20.0%	15.0% - 30.0%	100.0%	YES	YES
US Non-Investment Grade Fixed Income (17.1.a.iii)	-	0.0%	0.0%	0.0% - 5.0%	100.0%	YES	YES
Total Non US Fixed Income (20k)	-	0.0%	0.0%	0.0% - 0.0%	20.0%	YES	YES
Total Real Estate (18 & 19)	24,027,859.36	13.0%	14.0%	0.0% - 20.0%	20.0%	YES	YES
Alternative Investments (20d)	23,310,299.26	12.6%	16.0%	0.0% - 20.0%	20.0%	YES	YES
Short Term/Cash Reserves	10,777,128.73	5.8%	0.0%	0.0% - 3.0%	N/A	NO	YES



Commission Recapture Program

Broker	2002 thru 2010	2011	2012	2013	2014	2015	2016	2017	YTD 18
Bank of New York*	\$102,260	\$6,458	\$5,200	\$2,796	\$2,501	\$1,325	\$1,613	\$1,000	\$370
Income to Fund	\$102,260	\$6,458	\$5,200	\$2,796	\$2,501	\$1,325	\$1,613	\$1,000	\$370

NOTE: * (formerly L, J&R) Participants may include: Loomis Sayles, Fiduciary, WHV, and 1607 Capital

*Participants may include: Loomis Sayles, Fiduciary, WHV, and 1607 Capital

Securities Lending Program (Northern Trust)

	2002 thru 2010	2011	2012	2013	2014	2015	2016	2017	YTD 18
Gross Income	\$522,900	\$97,838	\$98,488	\$110,349	\$131,990	\$123,118	\$147,987	\$134,192	\$134,018
Less: Program Fees	\$209,695	\$39,093	\$39,342	\$44,072	\$52,698	\$49,144	\$59,108	\$53,576	\$53,491
Income To Fund	\$313,205	\$58,745	\$59,146	\$66,277	\$79,292	\$73,974	\$88,879	\$80,616	\$80,527

Notes:

As of report run date statements for JCR accounts, Kstone, and Landmark were not released as of 12/31/2018.

Total Fund Objectives:

- To earn an annual average return of 7.50% over rolling 5 year periods.
- To earn an average annual, real return of 3.75% after inflation over rolling five year periods.
- To meet the assumed actuarial rate of return with a high degree of probability.
- To rank in the 50th percentile over twelve month rolling periods and in the 40th percentile over rolling five year periods, among public employee retirement funds.

Manager Objectives:

- To exceed their performance return standard with equal or less risk over all three year periods.

Asset Allocation Policy:

Asset Class	Target	Ranges
U.S. Equities	34%	29 – 39%
Non-U.S. Equities	16%	11 – 21%
Global Fixed Income	20%	15 – 30%
Real Estate	14%	0 – 20%
Alternative Investments	16%	0 – 20%
Cash & Equivalents	0%	0 – 3%

Equity Portfolio Guidelines:

- No more than 5% of the portfolio may be invested in the stock of any one company.
- No more than 10% of the portfolio may be invested in ADRs.

Fixed Income Portfolio Guidelines:

- No more than 5% of the portfolio may be invested with one issuer, except for the U.S. Treasury and Agency securities.
- No more than 15% of the portfolio in below investment grade.
- No more than 30% of total assets in non-U.S. dollar denominated securities. At least 75% of any non-U.S. currency exposure must be hedged. May invest beyond the 30% limit in Yankee and Euro issues.

Other Portfolio Guidelines:

- Managers are expected to be fully invested at all times, however they may raise cash if this is deemed appropriate under the circumstances.
- Leveraging the portfolio is prohibited.
- Derivative contracts only as permitted.
- Additional investment policies and guidelines are contained in the formal Statement of Investment Policies, Procedures and Objectives.
- All investment managers should follow State of Michigan laws governing the investment of public retirement plan assets.

Active Return	- Arithmetic difference between the manager's performance and the designated benchmark return over a specified time period.
Alpha	- A measure of the difference between a portfolio's actual performance and its expected return based on its level of risk as determined by beta. It determines the portfolio's non-systemic return, or its historical performance not explained by movements of the market.
Beta	- A measure of the sensitivity of a portfolio to the movements in the market. It is a measure of the portfolio's systematic risk.
Consistency	- The percentage of quarters that a product achieved a rate of return higher than that of its benchmark. Higher consistency indicates the manager has contributed more to the product's performance.
Distributed to Paid In (DPI)	- The ratio of money distributed to Limited Partners by the fund, relative to contributions. It is calculated by dividing cumulative distributions by paid in capital. This multiple shows the investor how much money they got back. It is a good measure for evaluating a fund later in its life because there are more distributions to measure against.
Down Market Capture	- The ratio of average portfolio performance over the designated benchmark during periods of negative returns. A lower value indicates better product performance
Downside Risk	- A measure similar to standard deviation that utilizes only the negative movements of the return series. It is calculated by taking the standard deviation of the negative quarterly set of returns. A higher factor is indicative of a riskier product.
Excess Return	- Arithmetic difference between the manager's performance and the risk-free return over a specified time period.
Excess Risk	- A measure of the standard deviation of a portfolio's performance relative to the risk free return.
Information Ratio	- This calculates the value-added contribution of the manager and is derived by dividing the active rate of return of the portfolio by the tracking error. The higher the Information Ratio, the more the manager has added value to the portfolio.
Public Market Equivalent (PME)	- Designs a set of analyses used in the Private Equity Industry to evaluate the performance of a Private Equity Fund against a public benchmark or index.
R-Squared	- The percentage of a portfolio's performance that can be explained by the behavior of the appropriate benchmark. A high R-Squared means the portfolio's performance has historically moved in the same direction as the appropriate benchmark.
Return	- Compounded rate of return for the period.
Sharpe Ratio	- Represents the excess rate of return over the risk free return divided by the standard deviation of the excess return. The result is an absolute rate of return per unit of risk. A higher value demonstrates better historical risk-adjusted performance.
Standard Deviation	- A statistical measure of the range of a portfolio's performance. It represents the variability of returns around the average return over a specified time period.
Total Value to Paid In (TVPI)	- The ratio of the current value of remaining investments within a fund, plus the total value of all distributions to date, relative to the total amount of capital paid into the fund to date. It is a good measure of performance before the end of a fund's life
Tracking Error	- This is a measure of the standard deviation of a portfolio's returns in relation to the performance of its designated market benchmark.
Treynor Ratio	- Similar to Sharpe ratio but utilizes beta rather than excess risk as determined by standard deviation. It is calculated by taking the excess rate of return above the risk free rate divided by beta to derive the absolute rate of return per unit of risk. A higher value indicates a product has achieved better historical risk-adjusted performance.
Up Market Capture	- The ratio of average portfolio performance over the designated benchmark during periods of positive returns. A higher value indicates better product performance.

AndCo compiled this report for the sole use of the client for which it was prepared. AndCo is responsible for evaluating the performance results of the Total Fund along with the investment advisors by comparing their performance with indices and other related peer universe data that is deemed appropriate. AndCo uses the results from this evaluation to make observations and recommendations to the client.

AndCo uses time-weighted calculations which are founded on standards recommended by the CFA Institute. The calculations and values shown are based on information that is received from custodians. AndCo analyzes transactions as indicated on the custodian statements and reviews the custodial market values of the portfolio. As a result, this provides AndCo with a reasonable basis that the investment information presented is free from material misstatement. This methodology of evaluating and measuring performance provides AndCo with a practical foundation for our observations and recommendations. Nothing came to our attention that would cause AndCo to believe that the information presented is significantly misstated.

This performance report is based on data obtained by the client's custodian(s), investment fund administrator, or other sources believed to be reliable. While these sources are believed to be reliable, the data providers are responsible for the accuracy and completeness of their statements. Clients are encouraged to compare the records of their custodian(s) to ensure this report fairly and accurately reflects their various asset positions.

The strategies listed may not be suitable for all investors. We believe the information provided here is reliable, but do not warrant its accuracy or completeness. Past performance is not an indication of future performance. Any information contained in this report is for informational purposes only and should not be construed to be an offer to buy or sell any securities, investment consulting, or investment management services.

Additional information included in this document may contain data provided by from index databases, public economic sources and the managers themselves.

This document may contain data provided by Bloomberg Barclays. Bloomberg Barclays Index data provided by way of Barclays Live.

This document may contain data provided by Standard and Poor's. Nothing contained within any document, advertisement or presentation from S&P Indices constitutes an offer of services in jurisdictions where S&P Indices does not have the necessary licenses. All information provided by S&P Indices is impersonal and is not tailored to the needs of any person, entity or group of persons. Any returns or performance provided within any document is provided for illustrative purposes only and does not demonstrate actual performance. Past performance is not a guarantee of future investment results.

This document may contain data provided by MSCI, Inc. Copyright MSCI, 2017. Unpublished. All Rights Reserved. This information may only be used for your internal use, may not be reproduced or disseminated in any form and may not be used to create any financial instruments or products or any indices. This information is provided on an "as is" basis and the user of this information assumes the entire risk of any use it may make or permit to be made of this information. Neither MSCI, any of its affiliates or any other person involved in or related to compiling, computing or creating this information makes any express or implied warranties or representations with respect to such information or the results to be obtained by the use thereof, and MSCI, its affiliates and each such other person hereby expressly disclaim all warranties (including, without limitation, all warranties of originality, accuracy, completeness, timeliness, non-infringement, merchantability and fitness for a particular purpose) with respect to this information. Without limiting any of the foregoing, in no event shall MSCI, any of its affiliates or any other person involved in or related to compiling, computing or creating this information have any liability for any direct, indirect, special, incidental, punitive, consequential or any other damages (including, without limitation, lost profits) even if notified of, or if it might otherwise have anticipated, the possibility of such damages.

This document may contain data provided by Russell Investment Group. Russell Investment Group is the source owner of the data contained or reflected in this material and all trademarks and copyrights related thereto. The material may contain confidential information and unauthorized use, disclosure, copying, dissemination or redistribution is strictly prohibited. This is a user presentation of the data. Russell Investment Group is not responsible for the formatting or configuration of this material or for any inaccuracy in presentation thereof.

This document may contain data provided by Morningstar. All rights reserved. Use of this content requires expert knowledge. It is to be used by specialist institutions only. The information contained herein: (1) is proprietary to Morningstar and/or its content providers; (2) may not be copied, adapted or distributed; and (3) is not warranted to be accurate, complete or timely. Neither Morningstar nor its content providers are responsible for any damages or losses arising from any use of this information, except where such damages or losses cannot be limited or excluded by law in your jurisdiction. Past financial performance is not guarantee of future results.



Putting clients first.



CHICAGO | CLEVELAND | DALLAS | DETROIT | ORLANDO | PITTSBURGH | RENO | TULSA

AndCo Consulting | (844) 44-ANDCO | *AndCoConsulting.com*