

Investment Performance Review  
Period Ending December 31, 2018

# Monroe County Employees Retirement System

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**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.

1. Total fund results for the quarter of -8.27% outperformed the policy index return of -8.90%. Return ranked in the 58<sup>th</sup> percentile.
2. For the calendar year, the Total Fund outperformed the policy index by 0.88% and ranked in the 87<sup>th</sup> percentile.

Positive:

1. Strong performance from Clearbridge Large Growth, Clarkston Small Mid, Seizert Small Mid.
2. Lazard Emerging Markets outperformed by +4.26% for the quarter.
3. Intercontinental US REIF and Titanium GSA had another strong quarter, beating their index.
4. Corbin Pinehurst had a strong quarter and year as market volatility benefitted hedge funds.

Negative:

1. Seizert Large Value had a tough quarter, though longer term results are inline or ahead of benchmark.
2. Cambiar and Renaissance both had a difficult year, falling below benchmark and peers.
3. Boyd Watterson Fixed Income lagged for the quarter due to an overweight to corporate investment grade and high yield bonds.
4. Brandywine Global Fixed was the largest detractor for the quarter as returns were impacted by both corporate bond holdings and currency losses.

Final Notes:

1. As of 12/31/2018, the portfolio was in compliance with the Investment Policy Statement and Public Act 314, as amended.
2. With respect to the Manager Compliance Checklist, Lazard remains on watch effective 7/1/2018. This is the second consecutive quarter of watch status. Q4 2018 results were strong, but have not yet lifted longer term results above minimum standards.



Domestic Equity	WAM S&P 500			Seizert LCV			Clearbridge LCG			Clarkston			Seizert SMID			Tortoise MLP		
	Yes	No	N/A	Yes	No	N/A	Yes	No	N/A	Yes	No	N/A	Yes	No	N/A	Yes	No	N/A
1. Less than four (4) consecutive quarters of relative under-performance versus the benchmark.	x			x			x			x			x			x		
2. Either three (3) year trailing return within the top 50th percentile or performance exceeding the benchmark.			x	x					x			x			x			x
3. Either five (5) year trailing return within the top 50th percentile or performance exceeding the benchmark.			x			x			x			x			x			x
4. Three (3) year downside volatility less than the index (lower than 100), as measured by down market capture ratio.			x		x				x			x			x			x
5. Five (5) year downside volatility less than the index (lower than 100), as measured by down market capture ratio.			x			x			x			x			x			x
6. No investigation of the firm by the Securities and Exchange Commission (SEC).	x			x			x			x			x			x		
7. No merger or sale of firm.	x			x			x			x			x			x		
8. Qualitative changes included but not limited to style consistency, purity drift from the mandate, Management turnover in portfolio team or senior management, investment process change, variation of the index or benchmark, failure to adhere to the IPS or Public Act 314, or significant asset flows into or out of the company.	x			x			x			x			x			x		
9. No fee increases outside of the competitive range.	x			x			x			x			x			x		

International Equity / Fixed Income:	Cambair Intl			Renaissance Intl			Lazard EM			Boyd Watterson FI			Brandywine Global FI		
	Yes	No	N/A	Yes	No	N/A	Yes	No	N/A	Yes	No	N/A	Yes	No	N/A
1. Less than four (4) consecutive quarters of relative under-performance versus the benchmark.	x			x			x			x			x		
2. Either three (3) year trailing return within the top 50th percentile or performance exceeding the benchmark.			x		x		x			x			x		
3. Either five (5) year trailing return within the top 50th percentile or performance exceeding the benchmark.			x		x			x		x			x		
4. Three (3) year downside volatility less than the index (lower than 100), as measured by down market capture ratio.			x					x		x				x	
5. Five (5) year downside volatility less than the index (lower than 100), as measured by down market capture ratio.			x	x				x			x		x		
6. No investigation of the firm by the Securities and Exchange Commission (SEC).	x			x			x			x			x		
7. No merger or sale of firm.	x			x			x			x			x		
8. Qualitative changes included but not limited to style consistency, purity drift from the mandate, Management turnover in portfolio team or senior management, investment process change, variation of the index or benchmark, failure to adhere to the IPS or Public Act 314, or significant asset flows into or out of the company.	x			x			x			x			x		
9. No fee increases outside of the competitive range.	x			x			x			x			x		

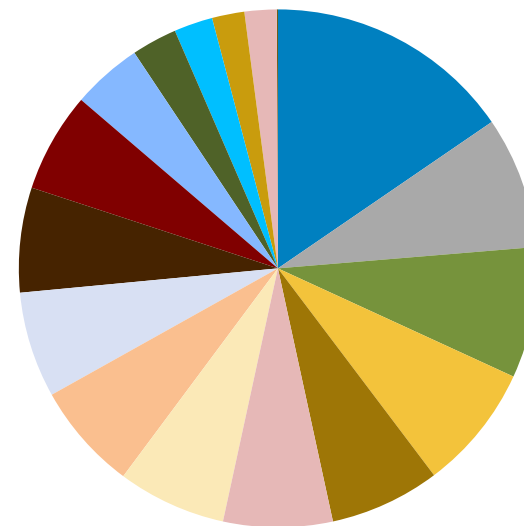
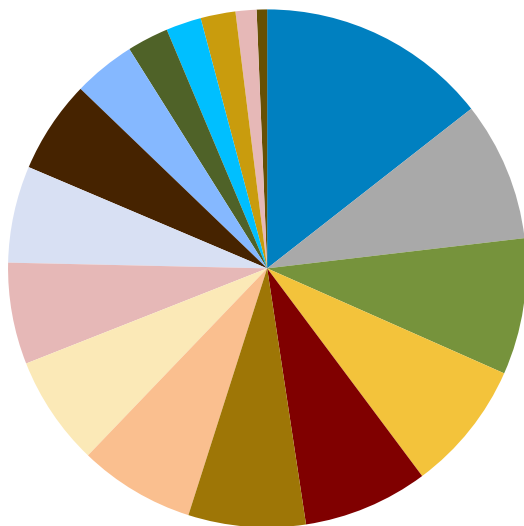
Real Estate / Hedge Funds:	Intercontinental RE			Titanium GSA			Corbin		
	Yes	No	N/A	Yes	No	N/A	Yes	No	N/A
1. Less than four (4) consecutive quarters of relative under-performance versus the benchmark.	x			x			x		
2. Either three (3) year trailing return within the top 50th percentile or performance exceeding the benchmark.	x			x			x		
3. Either five (5) year trailing return within the top 50th percentile or performance exceeding the benchmark.	x				x		x		
4. Three (3) year downside volatility less than the index (lower than 100), as measured by down market capture ratio.			x			x	x		
5. Five (5) year downside volatility less than the index (lower than 100), as measured by down market capture ratio.			x			x			x
6. No investigation of the firm by the Securities and Exchange Commission (SEC).	x			x			x		
7. No merger or sale of firm.	x			x			x		
8. Qualitative changes included but not limited to style consistency, purity drift from the mandate, Management turnover in portfolio team or senior management, investment process change, variation of the index or benchmark, failure to adhere to the IPS or Public Act 314, or significant asset flows into or out of the company.	x			x			x		
9. No fee increases outside of the competitive range.	x			x			x		

A "Yes" result means the Fund is in compliance with the IPS.



Asset Allocation By Manager as of September 30, 2018 : \$207,828,003

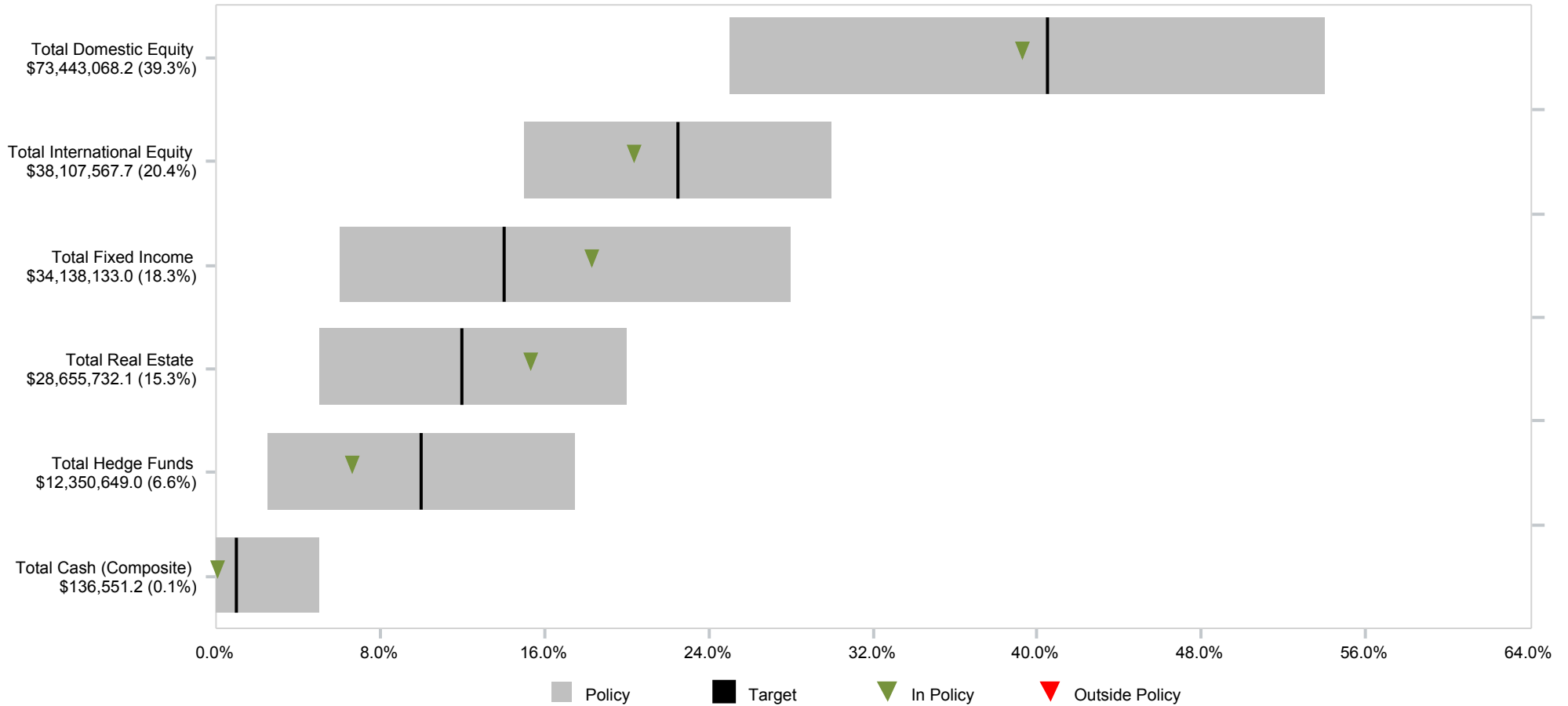
Asset Allocation By Manager as of December 31, 2018 : \$186,831,701



Allocation			Allocation		
	Market Value	Allocation		Market Value	Allocation
Boyd Watterson Asset MGMT	29,979,082	14.4	Boyd Watterson Asset MGMT	28,838,803	15.4
Seizert Large Value	18,104,804	8.7	Seizert Large Value	15,403,205	8.2
Clearbridge LCG	17,662,083	8.5	Clearbridge LCG	15,276,024	8.2
WAM S&P 500 Large Cap	16,965,478	8.2	WAM S&P 500 Large Cap	14,681,014	7.9
Seizert SMID Cap Core	16,222,014	7.8	Cambiar International	12,856,061	6.9
Cambiar International	15,205,544	7.3	Lazard Emerging	12,714,734	6.8
Renaissance Int'l Equity	15,044,804	7.2	Clarkston Capital	12,670,480	6.8
Clarkston Capital	14,255,730	6.9	Renaissance Int'l Equity	12,536,773	6.7
Lazard Emerging	13,162,620	6.3	Corbin- Pinehurst	12,350,649	6.6
Corbin- Pinehurst	12,552,328	6.0	Titanium GSA Fund	12,223,671	6.5
Titanium GSA Fund	12,059,766	5.8	Seizert SMID Cap Core	11,641,633	6.2
Intercontinental Real Estate	8,054,781	3.9	Intercontinental Real Estate	8,168,487	4.4
Brandywine Global Fixed	5,386,503	2.6	Brandywine Global Fixed	5,299,330	2.8
TerraCap Partners IV	4,571,543	2.2	TerraCap Partners IV	4,521,562	2.4
Tortoise MLP & Pipeline (TORIX)	4,529,922	2.2	Tortoise MLP & Pipeline (TORIX)	3,770,712	2.0
Alidade Capital GP IV	2,715,462	1.3	Alidade Capital GP IV	3,742,012	2.0
Cash Account	1,355,540	0.7	Cash Account	136,551	0.1



**Executive Summary**



**Asset Allocation Compliance**

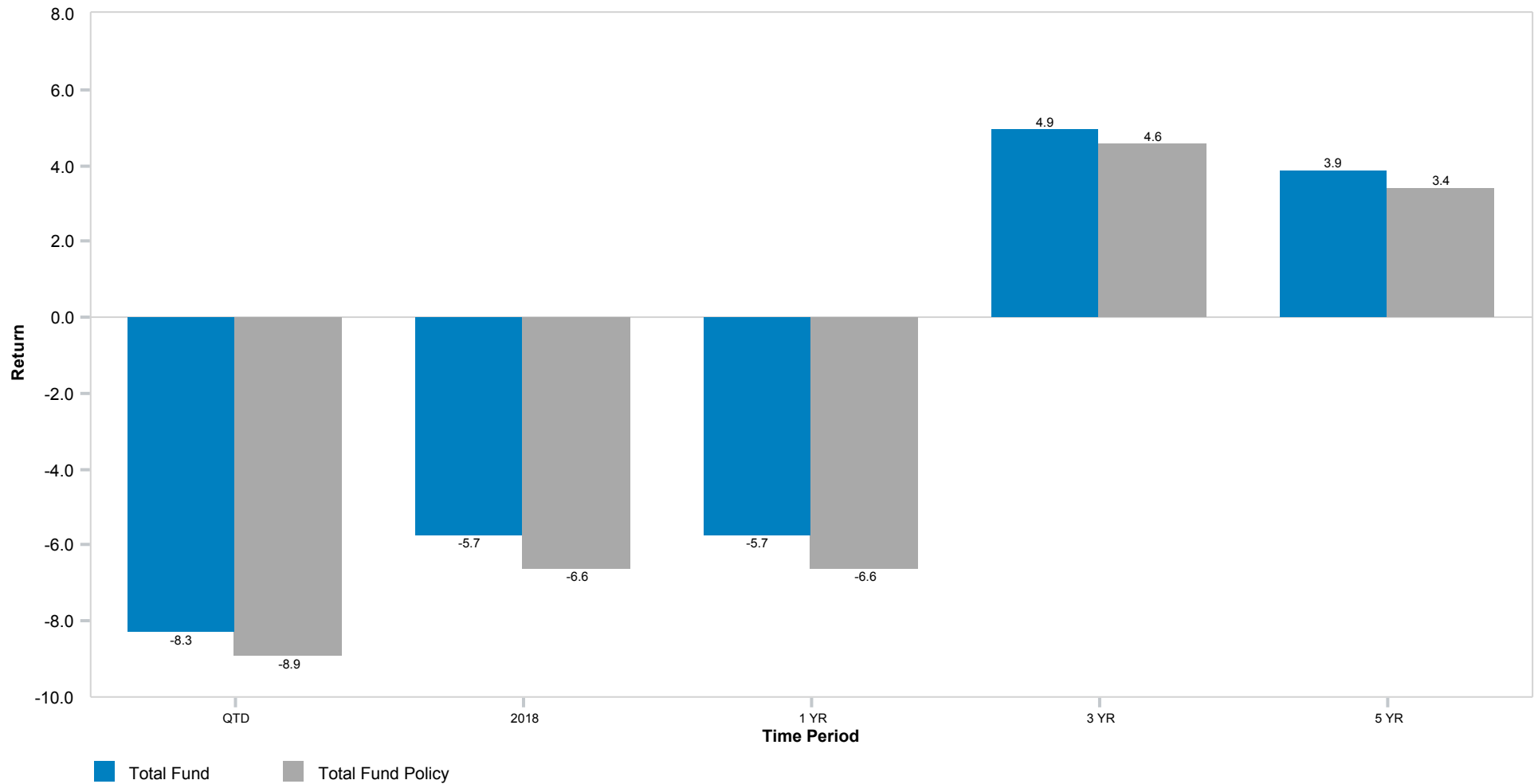
	Asset Allocation \$	Current Allocation (%)	Minimum Allocation (%)	Target Allocation (%)	Maximum Allocation (%)	Min. Rebal. (\$000)	Target Rebal. (\$000)	Max. Rebal. (\$000)
Total Fund	186,831,701	100.0	-	100.0	-	-	-	-
Total Domestic Equity	73,443,068	39.3	25.0	40.5	54.0	-26,735,143	2,223,771	27,446,050
Total International Equity	38,107,568	20.4	15.0	22.5	30.0	-10,082,813	3,929,565	17,941,943
Total Fixed Income	34,138,133	18.3	6.0	14.0	28.0	-22,928,231	-7,981,695	18,174,743
Total Real Estate	28,655,732	15.3	5.0	12.0	20.0	-19,314,147	-6,235,928	8,710,608
Total Hedge Funds	12,350,649	6.6	2.5	10.0	17.5	-7,679,856	6,332,521	20,344,899
Total Cash (Composite)	136,551	0.1	0.0	1.0	5.0	-136,551	1,731,766	9,205,034



**Gain/Loss Summary**

	QTD	YTD	1 YR	3 YR	5 YR
Total Fund					
<b>Beginning Market Value</b>	<b>207,828,003</b>	<b>207,268,964</b>	<b>207,268,964</b>	<b>182,850,005</b>	<b>189,403,012</b>
Net Contributions	-3,483,725	-7,573,292	-7,573,292	-20,151,970	-32,504,898
Gain/Loss	-17,512,576	-12,863,971	-12,863,971	24,133,666	29,933,587
<b>Ending Market Value</b>	<b>186,831,701</b>	<b>186,831,701</b>	<b>186,831,701</b>	<b>186,831,701</b>	<b>186,831,701</b>

**Comparative Performance**



**Comparative Performance Trailing Returns  
Monroe County Employees Retirement System**

As of December 31, 2018

**Comparative Performance**

	QTR		YTD		1 YR		3 YR		5 YR		7 YR		10 YR		Inception		Inception Date
<b>Total Fund</b>	<b>-8.27</b>	<b>(58)</b>	<b>-5.72</b>	<b>(87)</b>	<b>-5.72</b>	<b>(87)</b>	<b>4.95</b>	<b>(91)</b>	<b>3.87</b>	<b>(83)</b>	<b>5.84</b>	<b>(92)</b>	<b>6.54</b>	<b>(97)</b>	<b>7.37</b>	<b>(86)</b>	<b>07/01/1990</b>
Composite Hybrid	-8.90	(76)	-6.60	(94)	-6.60	(94)	4.57	(92)	3.39	(93)	5.84	(92)	7.07	(94)	7.29	(92)	
All Public Plans - > \$100M Median	-7.88		-4.02		-4.02		6.16		4.97		7.68		8.71		7.92		
<b>Total Fund (Net of Fees)</b>	<b>-8.40</b>		<b>-6.23</b>		<b>-6.23</b>		<b>4.33</b>		<b>3.22</b>		<b>5.24</b>		<b>6.10</b>		<b>7.20</b>		<b>07/01/1990</b>

**Total Equity**

**Total Domestic Equity**

WAM S&P 500 Large Cap	-13.47	(27)	N/A		N/A		N/A		N/A		N/A		N/A		-6.23	(16)	06/01/2018
S&P 500 Index	-13.52	(43)	-4.38	(31)	-4.38	(31)	9.26	(29)	8.49	(34)	12.70	(30)	13.12	(61)	-6.28	(24)	
IM U.S. Large Cap Index Equity (SA+CF) Median	-13.79		-4.79		-4.79		9.10		8.24		12.58		13.18		-6.81		
Seizert Large Value	-14.80	(73)	-8.47	(51)	-8.47	(51)	8.71	(23)	N/A		N/A		N/A		5.64	(36)	09/01/2014
Russell 1000 Value Index	-11.72	(29)	-8.27	(49)	-8.27	(49)	6.95	(56)	5.95	(61)	11.02	(61)	11.18	(75)	4.49	(61)	
IM U.S. Large Cap Value Equity (SA+CF) Median	-13.57		-8.39		-8.39		7.27		6.23		11.40		11.94		5.06		
Clearbridge LCG	-13.40	(28)	0.30	(40)	0.30	(40)	N/A		N/A		N/A		N/A		11.38	(68)	12/01/2016
Russell 1000 Growth Index	-15.89	(62)	-1.51	(54)	-1.51	(54)	11.15	(29)	10.40	(31)	14.14	(43)	15.29	(36)	13.35	(40)	
IM U.S. Large Cap Growth Equity (SA+CF) Median	-15.14		-1.17		-1.17		10.19		9.66		13.77		14.90		12.57		
Clarkston Capital	-10.93	(2)	-6.69	(31)	-6.69	(31)	N/A		N/A		N/A		N/A		1.92	(44)	04/01/2017
Russell 2500 Index	-18.49	(58)	-10.00	(49)	-10.00	(49)	7.32	(52)	5.15	(59)	10.97	(59)	13.15	(66)	0.75	(50)	
IM U.S. SMID Cap Equity (SA+CF) Median	-18.17		-10.32		-10.32		7.50		5.40		11.39		13.85		0.63		
Seizert SMID Cap Core	-15.89	(19)	-10.07	(49)	-10.07	(49)	6.59	(62)	2.89	(89)	N/A		N/A		2.89	(89)	01/01/2014
Russell 2500 Index	-18.49	(58)	-10.00	(49)	-10.00	(49)	7.32	(52)	5.15	(59)	10.97	(59)	13.15	(66)	5.15	(59)	
IM U.S. SMID Cap Equity (SA+CF) Median	-18.17		-10.32		-10.32		7.50		5.40		11.39		13.85		5.40		
Tortoise MLP & Pipeline (TORIX)	-16.76	(28)	-15.14	(46)	-15.14	(46)	N/A		N/A		N/A		N/A		-2.33	(7)	07/01/2016
Alerian MLP Index	-17.30	(36)	-12.42	(16)	-12.42	(16)	-1.06	(61)	-7.31	(63)	-1.26	(52)	9.58	(N/A)	-6.54	(63)	
IM Energy MLP (MF) Median	-17.59		-15.36		-15.36		-0.37		-6.42		-1.18		N/A		-6.17		

Returns for periods greater than one year are annualized. Returns are expressed as percentages.  
Corbin-Pinehurst information is updated through 06/30/2018.



**Comparative Performance Trailing Returns  
Monroe County Employees Retirement System**

As of December 31, 2018

	QTR		YTD		1 YR		3 YR		5 YR		7 YR		10 YR		Inception		Inception Date	
<b>Total International Equity</b>																		
<b>Total Developed Markets Int'l Equity</b>																		
Cambiar International	-15.30	(81)	-17.90	(79)	-17.90	(79)	N/A	N/A	N/A	N/A	N/A	N/A	2.03	(91)	04/01/2016			
MSCI EAFE (Net) Index	-12.54	(56)	-13.79	(38)	-13.79	(38)	2.87	(74)	0.53	(82)	5.75	(68)	6.32	(90)	4.29	(68)		
IM International Equity (SA+CF) Median	-11.87		-14.86		-14.86		4.84		2.07		6.66		8.57		5.45			
Renaissance Int'l Equity	-16.56	(89)	-18.85	(85)	-18.85	(85)	0.95	(93)	-0.29	(91)	5.49	(72)	6.83	(81)	7.84	(65)	11/01/2008	
MSCI EAFE (Net) Index	-12.54	(56)	-13.79	(38)	-13.79	(38)	2.87	(74)	0.53	(82)	5.75	(68)	6.32	(90)	6.24	(91)		
IM International Equity (SA+CF) Median	-11.87		-14.86		-14.86		4.84		2.07		6.66		8.57		8.48			
<b>Emerging Markets Int'l Equity</b>																		
Lazard Emerging	-3.21	(7)	-16.25	(62)	-16.25	(62)	10.97	(16)	0.68	(89)	3.72	(73)	N/A		1.74	(64)	12/01/2010	
MSCI Emerging Markets (Net) Index	-7.47	(55)	-14.58	(41)	-14.58	(41)	9.25	(41)	1.65	(67)	3.23	(82)	8.02	(81)	1.10	(80)		
IM Emerging Markets Equity (SA+CF) Median	-7.28		-15.23		-15.23		8.69		2.25		4.71		9.38		2.21			
<b>Total Domestic Fixed Income</b>																		
<b>Total Fixed Income</b>																		
<b>Total Domestic Fixed Income</b>																		
Boyd Watterson Asset MGMT	0.09	(66)	-0.12	(63)	-0.12	(63)	1.83	(79)	2.13	(74)	2.09	(73)	3.32	(74)	5.47	(74)	07/01/1990	
Bloomberg Barclays Intermediate US Govt/Credit Idx	1.65	(14)	0.88	(42)	0.88	(42)	1.70	(84)	1.86	(80)	1.75	(82)	2.90	(81)	5.33	(76)		
IM U.S. Fixed Income (SA+CF) Median	0.69		0.43		0.43		2.61		2.84		2.94		4.52		6.02			
<b>Total Global Fixed Income</b>																		
Brandywine Global Fixed	-1.50	(58)	-3.29	(74)	-3.29	(74)	3.42	(60)	1.50	(70)	2.33	(62)	5.71	(39)	5.18	(47)	06/01/2004	
FTSE World Government Bond Index	1.75	(6)	-0.84	(34)	-0.84	(34)	2.69	(79)	0.77	(89)	0.20	(95)	1.52	(96)	3.22	(98)		
IM Global Fixed Income (SA+CF) Median	-1.07		-1.82		-1.82		3.71		2.35		3.23		4.74		4.81			

Returns for periods greater than one year are annualized. Returns are expressed as percentages.  
Corbin-Pinehurst information is updated through 06/30/2018.



**Comparative Performance Trailing Returns  
Monroe County Employees Retirement System**

As of December 31, 2018

	QTR		YTD		1 YR		3 YR		5 YR		7 YR		10 YR		Inception		Inception Date
<b>Total Alternatives</b>																	
<b>Total Real Estate</b>																	
Intercontinental Real Estate	2.14	(25)	10.75	(15)	10.75	(15)	10.53	(26)	11.74	(34)	N/A	N/A	11.74	(34)	01/01/2014		
NCREIF Property Index	1.37	(92)	6.72	(100)	6.72	(100)	7.21	(91)	9.33	(93)	9.74	(93)	7.49	(42)	9.33	(93)	
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		10.82		
Titanium GSA Fund	1.68	(72)	9.59	(27)	9.59	(27)	9.72	(31)	9.26	(93)	N/A	N/A	9.26	(93)	01/01/2014		
NCREIF Property Index	1.37	(92)	6.72	(100)	6.72	(100)	7.21	(91)	9.33	(93)	9.74	(93)	7.49	(42)	9.33	(93)	
IM U.S. Private Real Estate (SA+CF) Median	1.80		8.71		8.71		8.66		10.82		11.57		7.34		10.82		
<b>Total Hedge Fund</b>																	
Corbin- Pinehurst	-1.61	(12)	2.80	(2)	2.80	(2)	4.43	(4)	4.02	(1)	N/A	N/A	4.38	(1)	07/01/2013		
HFRI Fund of Funds Composite Index	-5.01	(68)	-4.09	(41)	-4.09	(41)	1.28	(46)	1.38	(24)	2.92	(33)	3.11	(57)	2.23	(6)	
IM Alternative Multi-Strategy (MF) Median	-4.16		-4.42		-4.42		0.91		0.55		2.60		3.12		1.26		
<b>Total Cash</b>																	
Cash Account	0.37	(76)	1.49	(93)	1.49	(93)	0.85	(100)	1.55	(21)	1.27	(49)	N/A	1.20	(47)	07/01/2011	
90 Day U.S. Treasury Bill	0.56	(50)	1.87	(81)	1.87	(81)	0.99	(98)	0.61	(100)	0.45	(100)	0.35	(100)	0.42	(100)	
IM U.S. Cash Fixed Income (SA+CF) Median	0.56		2.00		2.00		1.48		1.12		1.20		1.41		1.08		

Returns for periods greater than one year are annualized. Returns are expressed as percentages.  
Corbin-Pinehurst information is updated through 06/30/2018.



**Comparative Performance Calendar Year Returns  
Monroe County Employees Retirement System**

As of December 31, 2018

Comparative Performance														
	YTD		2017		2016		2015		2014		2013		2012	
<b>Total Fund</b>	<b>-5.72</b>	<b>(86)</b>	<b>13.95</b>	<b>(73)</b>	<b>7.59</b>	<b>(45)</b>	<b>-0.11</b>	<b>(54)</b>	<b>4.70</b>	<b>(88)</b>	<b>12.52</b>	<b>(89)</b>	<b>9.39</b>	<b>(94)</b>
Composite Hybrid	-6.60	(94)	15.13	(55)	6.34	(76)	-0.60	(66)	3.93	(92)	14.79	(76)	9.74	(93)
All Public Plans-Total Fund Median	-4.36		15.34		7.37		0.03		6.82		17.04		12.48	
<b>Total Fund (Net of Fees)</b>	<b>-6.23</b>		<b>13.32</b>		<b>6.86</b>		<b>-0.88</b>		<b>4.10</b>		<b>11.88</b>		<b>9.08</b>	
<b>Total Equity</b>														
<b>Total Domestic Equity</b>														
WAM S&P 500 Large Cap	N/A		N/A		N/A		N/A		N/A		N/A		N/A	
S&P 500 Index	-4.38	(31)	21.83	(40)	11.96	(61)	1.38	(37)	13.69	(24)	32.39	(69)	16.00	(64)
IM U.S. Large Cap Index Equity (SA+CF) Median	-4.79		21.73		12.03		0.94		13.27		32.58		16.22	
Seizert Large Value	-8.47	(51)	17.83	(44)	19.12	(16)	-3.17	(62)	N/A		N/A		N/A	
Russell 1000 Value Index	-8.27	(49)	13.66	(89)	17.34	(26)	-3.83	(69)	13.45	(35)	32.53	(62)	17.51	(29)
IM U.S. Large Cap Value Equity (SA+CF) Median	-8.39		17.22		14.47		-2.27		12.22		34.27		15.63	
Clearbridge LCG	0.30	(40)	26.42	(69)	N/A		N/A		N/A		N/A		N/A	
Russell 1000 Growth Index	-1.51	(54)	30.21	(38)	7.08	(26)	5.67	(46)	13.05	(39)	33.48	(59)	15.26	(50)
IM U.S. Large Cap Growth Equity (SA+CF) Median	-1.17		28.11		4.65		5.07		11.99		34.52		15.18	
Clarkston Capital	-6.69	(31)	N/A		N/A		N/A		N/A		N/A		N/A	
Russell 2500 Index	-10.00	(49)	16.81	(59)	17.59	(37)	-2.90	(67)	7.07	(50)	36.80	(55)	17.88	(41)
IM U.S. SMID Cap Equity (SA+CF) Median	-10.32		17.83		16.37		-1.42		6.97		37.56		16.69	
Seizert SMID Cap Core	-10.07	(49)	5.83	(97)	27.24	(8)	-8.71	(93)	4.28	(72)	N/A		N/A	
Russell 2500 Index	-10.00	(49)	16.81	(59)	17.59	(37)	-2.90	(67)	7.07	(50)	36.80	(55)	17.88	(41)
IM U.S. SMID Cap Equity (SA+CF) Median	-10.32		17.83		16.37		-1.42		6.97		37.56		16.69	
Riverbridge SMID Growth	N/A		20.63	(78)	8.39	(52)	0.28	(47)	N/A		N/A		N/A	
Russell 2500 Growth Index	-7.47	(78)	24.46	(53)	9.73	(33)	-0.19	(53)	7.05	(34)	40.65	(48)	16.13	(45)
IM U.S. SMID Cap Growth Equity (SA+CF) Median	-4.48		24.95		8.56		0.11		5.59		40.20		15.48	
Tortoise MLP & Pipeline (TORIX)	-15.14	(46)	-1.03	(13)	N/A		N/A		N/A		N/A		N/A	
Alerian MLP Index	-12.42	(16)	-6.52	(50)	18.31	(73)	-32.59	(33)	4.80	(69)	27.58	(27)	4.80	(33)
IM Energy MLP (MF) Median	-15.36		-6.56		25.18		-35.47		7.21		22.52		3.37	

Returns for periods greater than one year are annualized. Returns are expressed as percentages.  
Corbin-Pinehurst information is updated through 06/30/2018.



**Comparative Performance Calendar Year Returns  
Monroe County Employees Retirement System**

As of December 31, 2018

	YTD		2017		2016		2015		2014		2013		2012	
<b>Total International Equity</b>														
<b>Total Developed Markets Int'l Equity</b>														
Cambiar International	-17.90	(79)	21.33	(92)	N/A		N/A		N/A		N/A		N/A	
MSCI EAFE (Net) Index	-13.79	(38)	25.03	(80)	1.00	(69)	-0.81	(48)	-4.90	(74)	22.78	(41)	17.32	(70)
IM International Equity (SA+CF) Median	-14.86		30.51		3.74		-1.58		-2.51		19.95		19.83	
Renaissance Int'l Equity	-18.85	(85)	27.97	(63)	-0.93	(82)	0.18	(43)	-4.37	(69)	33.29	(9)	10.64	(94)
MSCI EAFE (Net) Index	-13.79	(38)	25.03	(80)	1.00	(69)	-0.81	(48)	-4.90	(74)	22.78	(41)	17.32	(70)
IM International Equity (SA+CF) Median	-14.86		30.51		3.74		-1.58		-2.51		19.95		19.83	
<b>Emerging Markets Int'l Equity</b>														
Lazard Emerging	-16.25	(62)	32.39	(68)	23.25	(5)	-19.58	(97)	-5.87	(92)	4.53	(29)	19.39	(65)
MSCI Emerging Markets (Net) Index	-14.58	(41)	37.28	(47)	11.19	(43)	-14.92	(69)	-2.19	(74)	-2.60	(76)	18.23	(70)
IM Emerging Markets Equity (SA+CF) Median	-15.23		36.92		10.16		-12.59		-0.05		1.00		20.52	
<b>Total Domestic Fixed Income</b>														
<b>Total Fixed Income</b>														
<b>Total Domestic Fixed Income</b>														
Boyd Watterson Asset MGMT	-0.12	(63)	3.59	(62)	2.05	(75)	1.25	(29)	3.92	(56)	-0.40	(54)	4.45	(72)
Bloomberg Barclays Intermediate US Govt/Credit Idx	0.88	(42)	2.14	(83)	2.08	(75)	1.07	(36)	3.13	(65)	-0.86	(63)	3.89	(77)
IM U.S. Fixed Income (SA+CF) Median	0.43		4.17		3.70		0.73		4.43		-0.20		6.88	
Boyd Watterson Limited Duration Fund (BWDTX)	N/A		4.08	(3)	5.77	(3)	1.72	(2)	1.25	(18)	N/A		N/A	
ICE BofAML 1-3 Year U.S. Corporate	1.62	(23)	1.91	(22)	2.39	(20)	1.01	(7)	1.19	(20)	1.78	(5)	4.49	(18)
IM U.S. Short Duration Fixed Income (MF) Median	1.20		1.33		1.46		0.27		0.64		0.24		2.38	
<b>Total Global Fixed Income</b>														
Brandywine Global Fixed	-3.29	(74)	11.66	(10)	2.43	(81)	-7.62	(91)	5.41	(27)	-2.57	(68)	11.96	(39)
FTSE World Government Bond Index	-0.84	(34)	7.49	(52)	1.60	(89)	-3.57	(69)	-0.48	(85)	-4.00	(80)	1.65	(94)
IM Global Fixed Income (SA+CF) Median	-1.82		7.62		5.75		-2.27		2.51		-0.06		9.51	

Returns for periods greater than one year are annualized. Returns are expressed as percentages.  
Corbin-Pinehurst information is updated through 06/30/2018.



**Comparative Performance Calendar Year Returns  
Monroe County Employees Retirement System**

As of December 31, 2018

	YTD		2017		2016		2015		2014		2013		2012	
<b>Total Alternatives</b>														
<b>Total Real Estate</b>														
Intercontinental Real Estate	10.75	(15)	8.27	(48)	12.60	(24)	14.71	(56)	12.47	(77)	N/A		N/A	
NCREIF Property Index	6.72	(100)	6.96	(82)	7.97	(88)	13.33	(75)	11.82	(82)	10.98	(86)	10.54	(81)
IM U.S. Open End Private Real Estate (SA+CF) Median	8.71		8.08		9.63		15.23		13.59		14.47		12.45	
Titanium GSA Fund	9.59	(27)	9.16	(27)	10.40	(47)	10.98	(98)	6.25	(100)	N/A		N/A	
NCREIF Property Index	6.72	(100)	6.96	(81)	7.97	(89)	13.33	(78)	11.82	(85)	10.98	(88)	10.54	(76)
IM U.S. Private Real Estate (SA+CF) Median	8.71		8.23		10.05		15.35		13.76		14.83		12.48	
<b>Total Hedge Fund</b>														
Corbin- Pinehurst	2.80	(2)	7.74	(16)	2.83	(42)	0.26	(27)	6.64	(5)	N/A		N/A	
HFRI Fund of Funds Composite Index	-4.09	(41)	7.77	(16)	0.51	(70)	-0.27	(36)	3.37	(37)	8.96	(23)	4.79	(43)
IM Alternative Multi-Strategy (MF) Median	-4.42		4.62		2.35		-1.34		2.47		4.18		3.51	
<b>Total Cash</b>														
Cash Account	1.49	(93)	0.94	(91)	0.13	(100)	5.29	(1)	0.00	(100)	0.33	(72)	0.78	(64)
90 Day U.S. Treasury Bill	1.87	(81)	0.86	(93)	0.25	(100)	0.03	(100)	0.04	(100)	0.05	(99)	0.08	(100)
IM U.S. Cash Fixed Income (SA+CF) Median	2.00		1.34		1.25		0.49		0.58		0.52		1.23	

Returns for periods greater than one year are annualized. Returns are expressed as percentages.  
Corbin-Pinehurst information is updated through 06/30/2018.

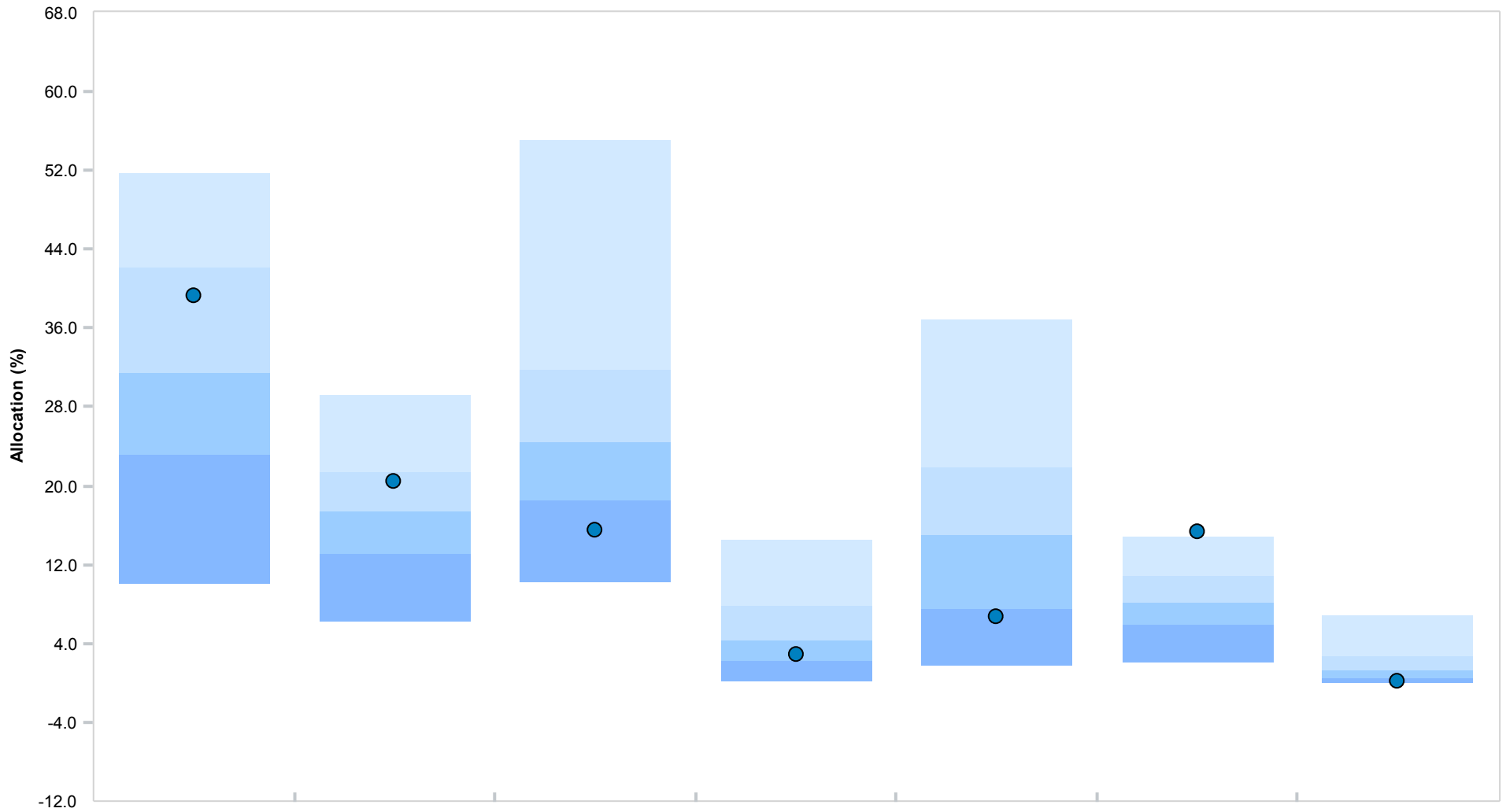


As of December 31, 2018

Comparative Performance - IRR									
	QTD	YTD	FYTD	1 YR	2 YR	3 YR	5 YR	Inception	Inception Date
Real Estate									
Alidade Capital GP IV	0.00	N/A	N/A	N/A	N/A	N/A	N/A	-5.57	07/20/2018
TerraCap Partners IV	0.00	N/A	N/A	N/A	N/A	N/A	N/A	-13.27	07/17/2018



Plan Sponsor TF Asset Allocation vs. All Public Plans - > \$100M

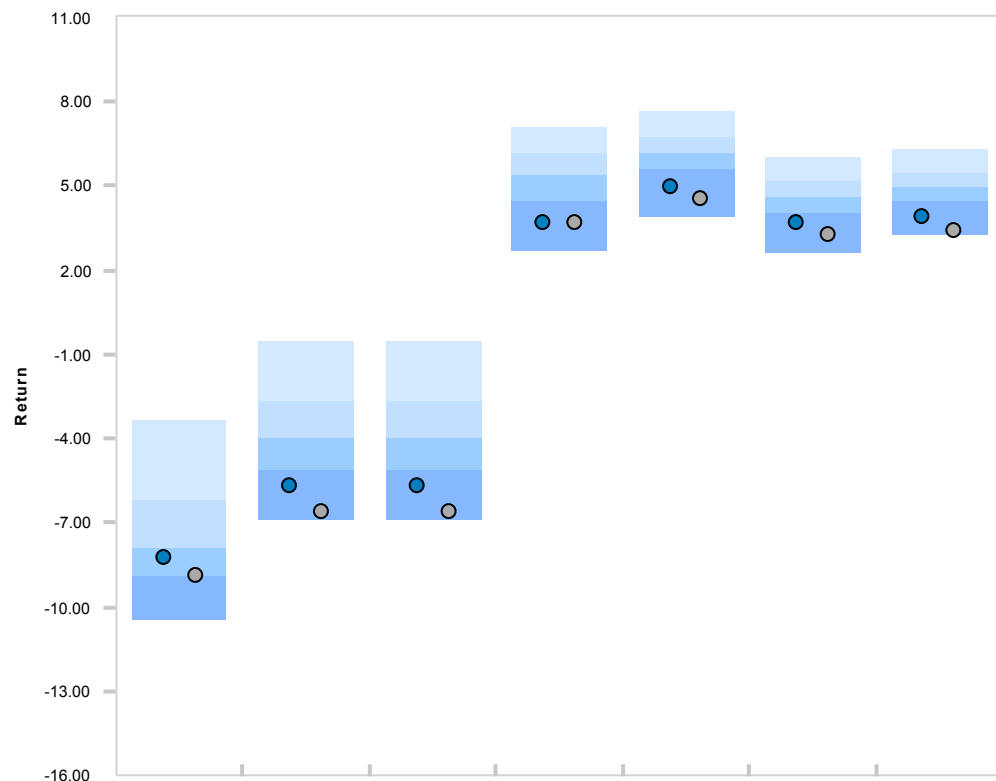


	US Equity	Intl. Equity	US Fixed Income	Intl. Fixed Income	Alternative Inv.	Real Estate	Cash
● Total Fund	39.31 (32)	20.40 (31)	15.44 (83)	2.84 (67)	6.61 (79)	15.34 (2)	0.07 (93)
5th Percentile	51.73	29.27	55.13	14.44	36.89	14.81	6.87
1st Quartile	42.07	21.45	31.80	7.87	21.81	10.91	2.63
Median	31.49	17.44	24.37	4.32	15.05	8.09	1.32
3rd Quartile	23.16	13.12	18.52	2.28	7.42	5.85	0.45
95th Percentile	10.07	6.13	10.16	0.07	1.79	1.98	0.05

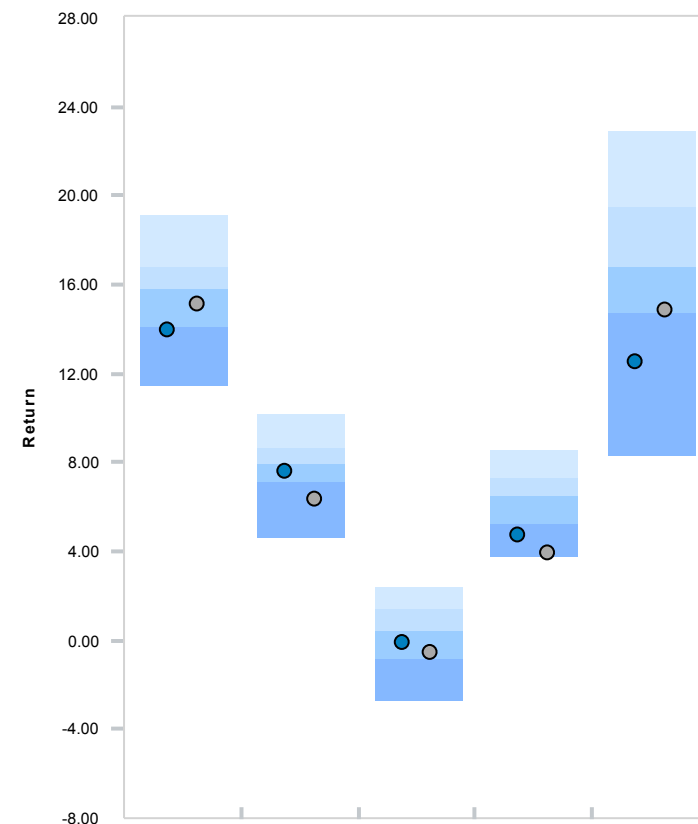
Parentheses contain percentile rankings.  
Calculation based on quarterly periodicity.



Plan Sponsor Peer Group Analysis - All Public Plans - > \$100M



	QTR	FYTD	1 YR	2 YR	3 YR	4 YR	5 YR
● Total Fund	-8.27 (58)	-5.72 (87)	-5.72 (87)	3.65 (88)	4.95 (91)	3.66 (82)	3.87 (83)
● Composite Hybrid	-8.90 (76)	-6.60 (94)	-6.60 (94)	3.70 (88)	4.57 (92)	3.25 (88)	3.39 (93)
Median	-7.88	-4.02	-4.02	5.38	6.16	4.59	4.97



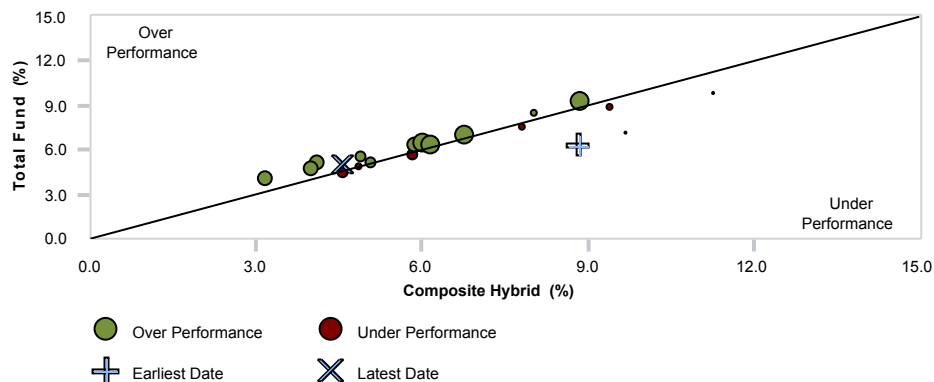
	2017	2016	2015	2014	2013
● Total Fund	13.95 (79)	7.59 (60)	-0.11 (64)	4.70 (87)	12.52 (86)
● Composite Hybrid	15.13 (62)	6.34 (88)	-0.60 (72)	3.93 (91)	14.79 (75)
Median	15.81	7.93	0.40	6.54	16.77

Comparative Performance

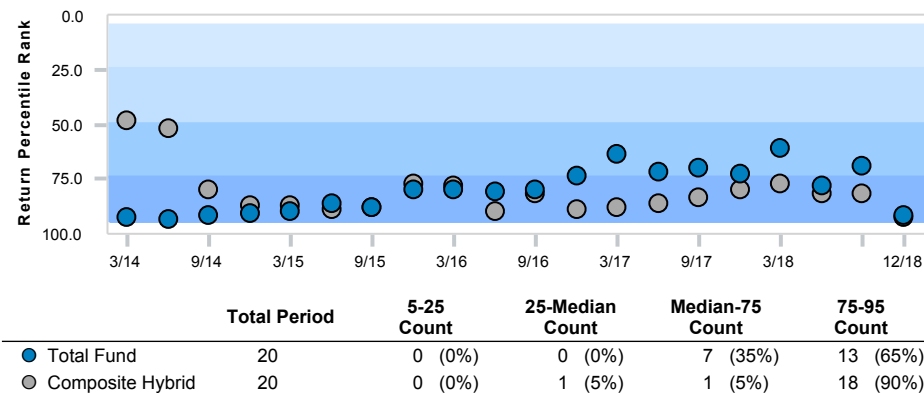
	1 Qtr Ending Sep-2018	1 Qtr Ending Jun-2018	1 Qtr Ending Mar-2018	1 Qtr Ending Dec-2017	1 Qtr Ending Sep-2017	1 Qtr Ending Jun-2017
Total Fund	2.33 (75)	-0.03 (95)	0.47 (17)	3.50 (71)	3.24 (69)	2.32 (87)
Composite Hybrid	2.40 (73)	0.31 (89)	-0.19 (56)	3.49 (73)	3.46 (54)	3.11 (42)
All Public Plans - > \$100M Median	2.88	1.44	-0.08	3.81	3.57	3.05



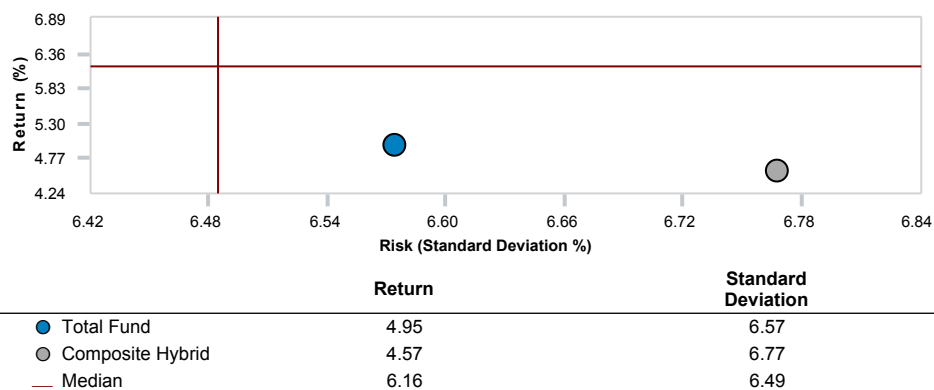
### 3 Yr Rolling Under/Over Performance - 5 Years



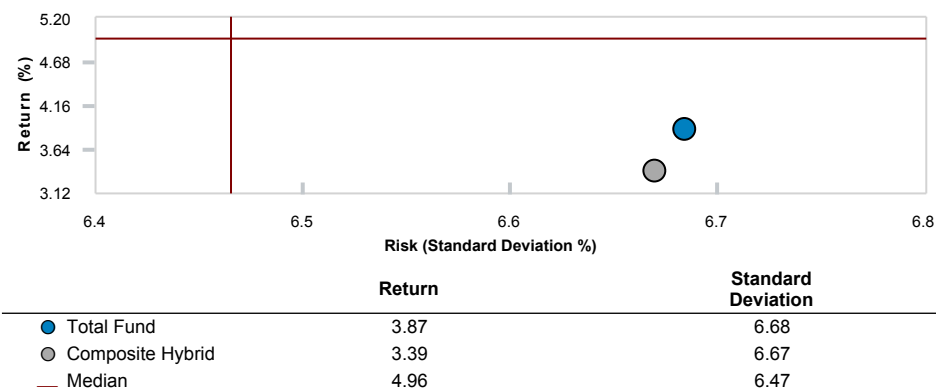
### 3 Yr Rolling Percentile Ranking - 5 Years



### Peer Group Scattergram - 3 Years



### Peer Group Scattergram - 5 Years



### Historical Statistics - 3 Years

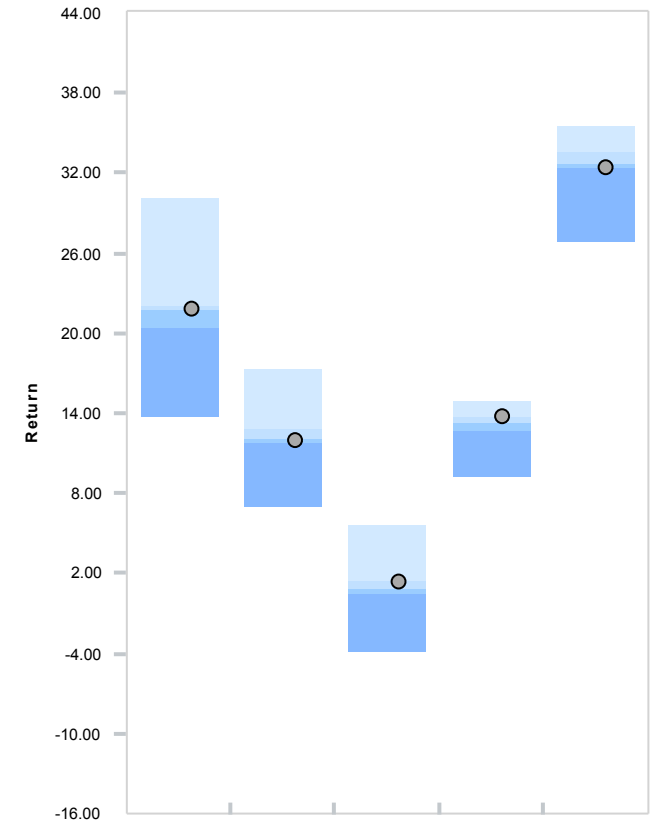
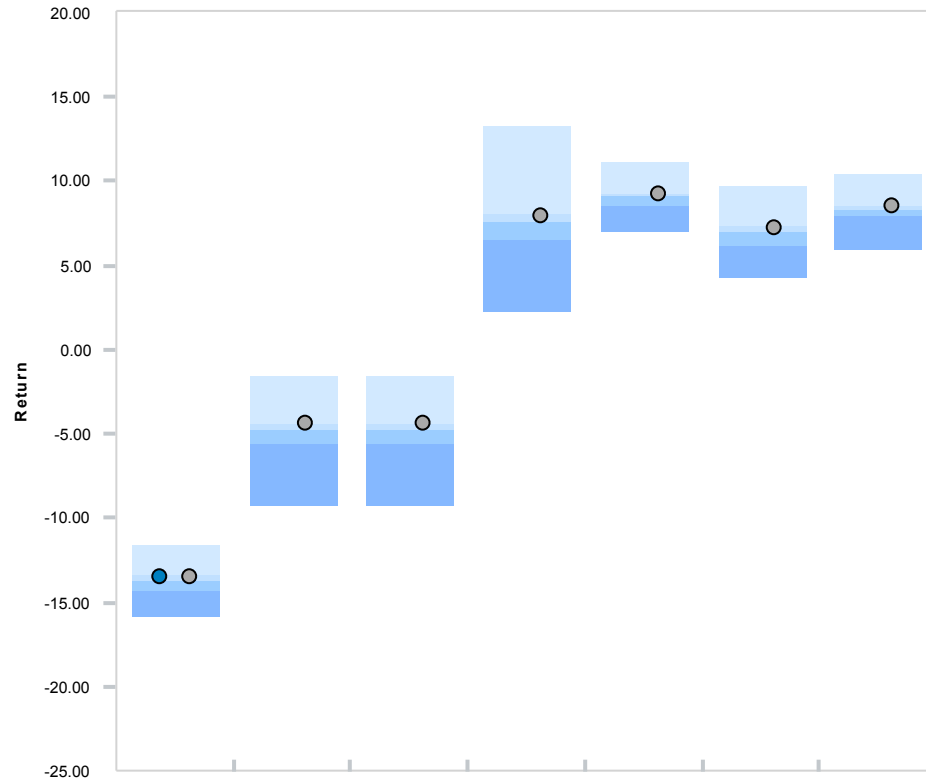
	Tracking Error	Up Market Capture	Down Market Capture	Alpha	Information Ratio	Sharpe Ratio	Beta	Downside Risk
Total Fund	1.50	98.79	92.29	0.60	0.23	0.61	0.95	4.60
Composite Hybrid	0.00	100.00	100.00	0.00	N/A	0.55	1.00	4.94

### Historical Statistics - 5 Years

	Tracking Error	Up Market Capture	Down Market Capture	Alpha	Information Ratio	Sharpe Ratio	Beta	Downside Risk
Total Fund	1.35	100.74	94.46	0.53	0.35	0.51	0.98	4.52
Composite Hybrid	0.00	100.00	100.00	0.00	N/A	0.44	1.00	4.63



Peer Group Analysis - IM U.S. Large Cap Index Equity (SA+CF)



	QTR	FYTD	1 YR	2 YR	3 YR	4 YR	5 YR
● WAM S&P 500 Large Cap	-13.47 (27)	N/A	N/A	N/A	N/A	N/A	N/A
● S&P 500 Index	-13.52 (43)	-4.38 (31)	-4.38 (31)	7.93 (32)	9.26 (29)	7.23 (32)	8.49 (34)
Median	-13.79	-4.79	-4.79	7.62	9.10	7.02	8.24

	2017	2016	2015	2014	2013
● WAM S&P 500 Large Cap	N/A	N/A	N/A	N/A	N/A
● S&P 500 Index	21.83 (40)	11.96 (61)	1.38 (37)	13.69 (24)	32.39 (69)
Median	21.73	12.03	0.94	13.27	32.58

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
WAM S&P 500 Large Cap	7.71 (27)	N/A	N/A	N/A	N/A	N/A
S&P 500 Index	7.71 (24)	3.43 (61)	-0.76 (68)	6.64 (38)	4.48 (69)	3.09 (39)
IM U.S. Large Cap Index Equity (SA+CF) Median	7.39	3.56	-0.71	6.59	4.51	3.07

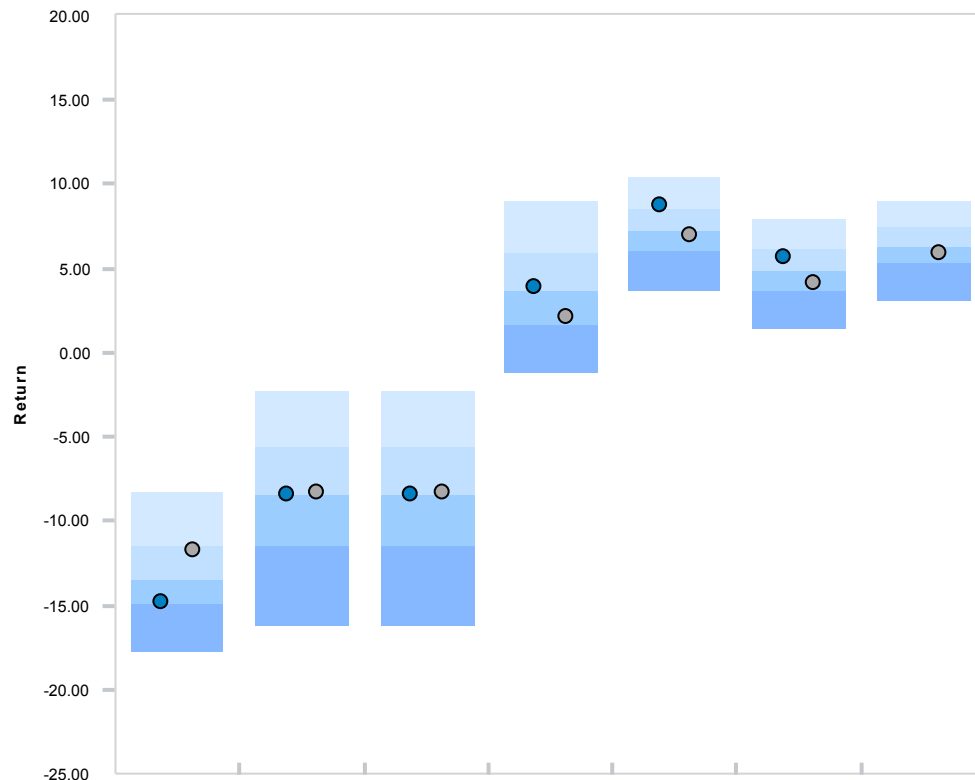


**Gain/Loss Summary**  
**WAM S&P 500 Large Cap**  
As of December 31, 2018

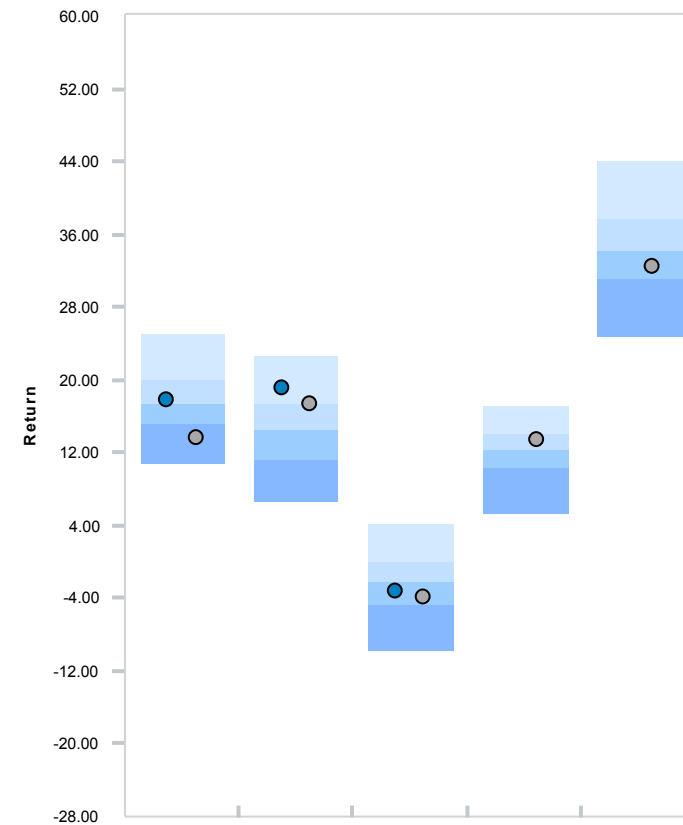
<b>Gain/Loss Summary</b>							
	<b>QTD</b>	<b>YTD</b>	<b>1 YR</b>	<b>3 YR</b>	<b>5 YR</b>	<b>7 YR</b>	<b>10 YR</b>
WAM S&P 500 Large Cap							
<b>Beginning Market Value</b>	<b>16,965,478</b>	-	-	-	-	-	-
Net Contributions	-	-	-	-	-	-	-
Gain/Loss	-2,284,464	-	-	-	-	-	-
<b>Ending Market Value</b>	<b>14,681,014</b>	-	-	-	-	-	-



**Peer Group Analysis - IM U.S. Large Cap Value Equity (SA+CF)**



	QTR	FYTD	1 YR	2 YR	3 YR	4 YR	5 YR
● Seizert Large Value	-14.80 (73)	-8.47 (51)	-8.47 (51)	3.85 (48)	8.71 (23)	5.61 (34)	N/A
● Russell 1000 Value	-11.72 (29)	-8.27 (49)	-8.27 (49)	2.11 (70)	6.95 (56)	4.15 (65)	5.95 (61)
Median	-13.57	-8.39	-8.39	3.60	7.27	4.81	6.23



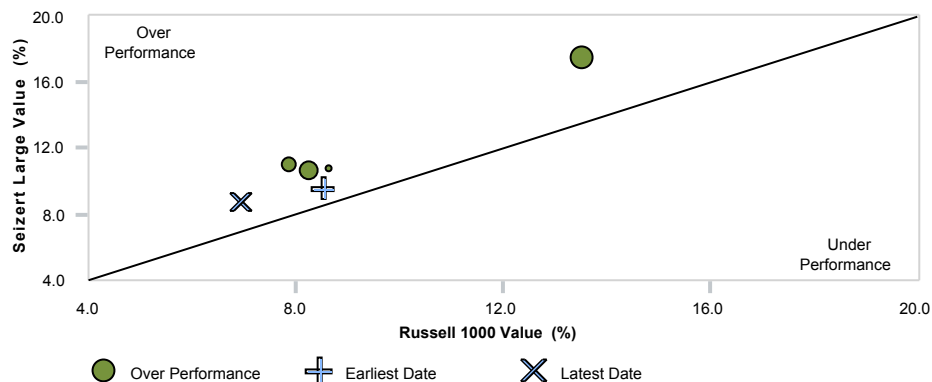
	2017	2016	2015	2014	2013
● Seizert Large Value	17.83 (44)	19.12 (16)	-3.17 (62)	N/A	N/A
● Russell 1000 Value	13.66 (89)	17.34 (26)	-3.83 (69)	13.45 (35)	32.53 (62)
Median	17.22	14.47	-2.27	12.22	34.27

**Comparative Performance**

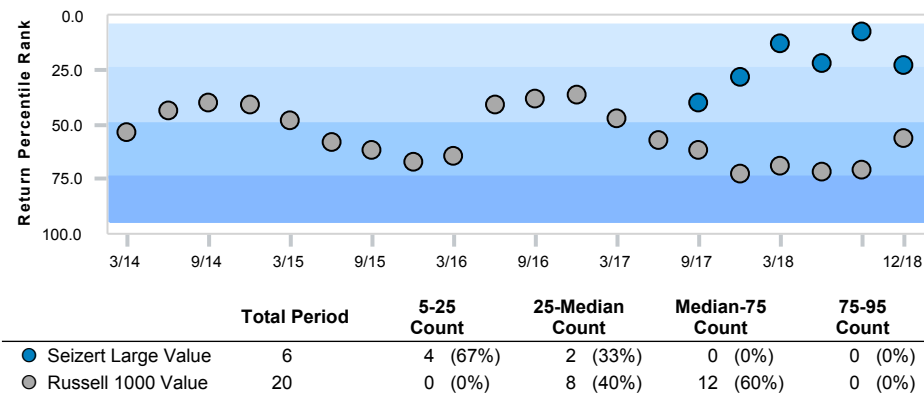
	1 Qtr Ending Sep-2018	1 Qtr Ending Jun-2018	1 Qtr Ending Mar-2018	1 Qtr Ending Dec-2017	1 Qtr Ending Sep-2017	1 Qtr Ending Jun-2017
Seizert Large Value	8.96 (4)	-0.72 (97)	-0.68 (16)	6.21 (53)	4.18 (48)	2.16 (48)
Russell 1000 Value	5.70 (50)	1.18 (66)	-2.83 (75)	5.33 (76)	3.11 (80)	1.34 (73)
IM U.S. Large Cap Value Equity (SA+CF) Median	5.70	1.74	-1.97	6.31	4.09	2.06



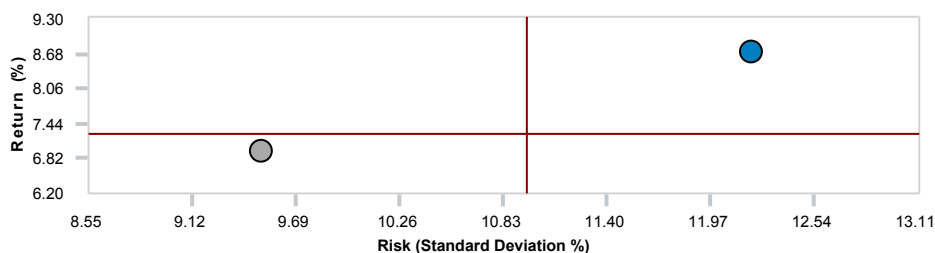
### 3 Yr Rolling Under/Over Performance - 5 Years



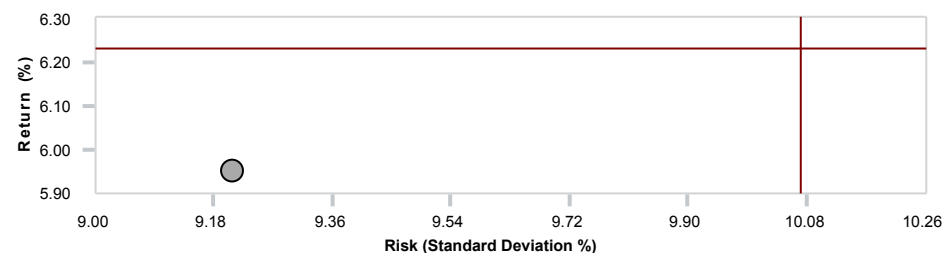
### 3 Yr Rolling Percentile Ranking - 5 Years



### Peer Group Scattergram - 3 Years



### Peer Group Scattergram - 5 Years



### Historical Statistics - 3 Years

	Tracking Error	Up Market Capture	Down Market Capture	Alpha	Information Ratio	Sharpe Ratio	Beta	Downside Risk
Seizert Large Value	4.31	114.47	106.34	0.91	0.44	0.64	1.14	8.78
Russell 1000 Value	0.00	100.00	100.00	0.00	N/A	0.58	1.00	7.67

### Historical Statistics - 5 Years

	Tracking Error	Up Market Capture	Down Market Capture	Alpha	Information Ratio	Sharpe Ratio	Beta	Downside Risk
Seizert Large Value	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Russell 1000 Value	0.00	100.00	100.00	0.00	N/A	0.53	1.00	7.31

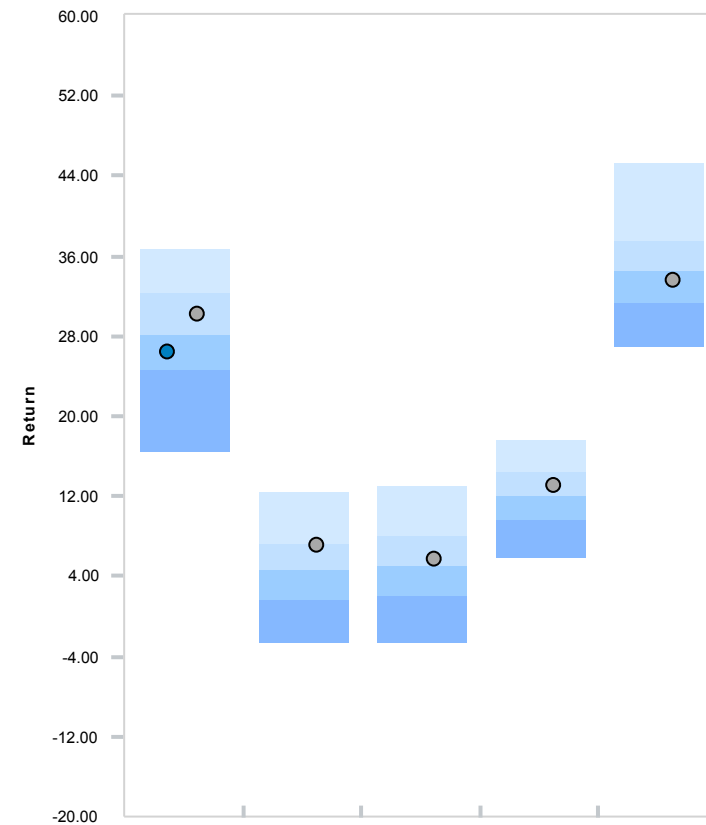
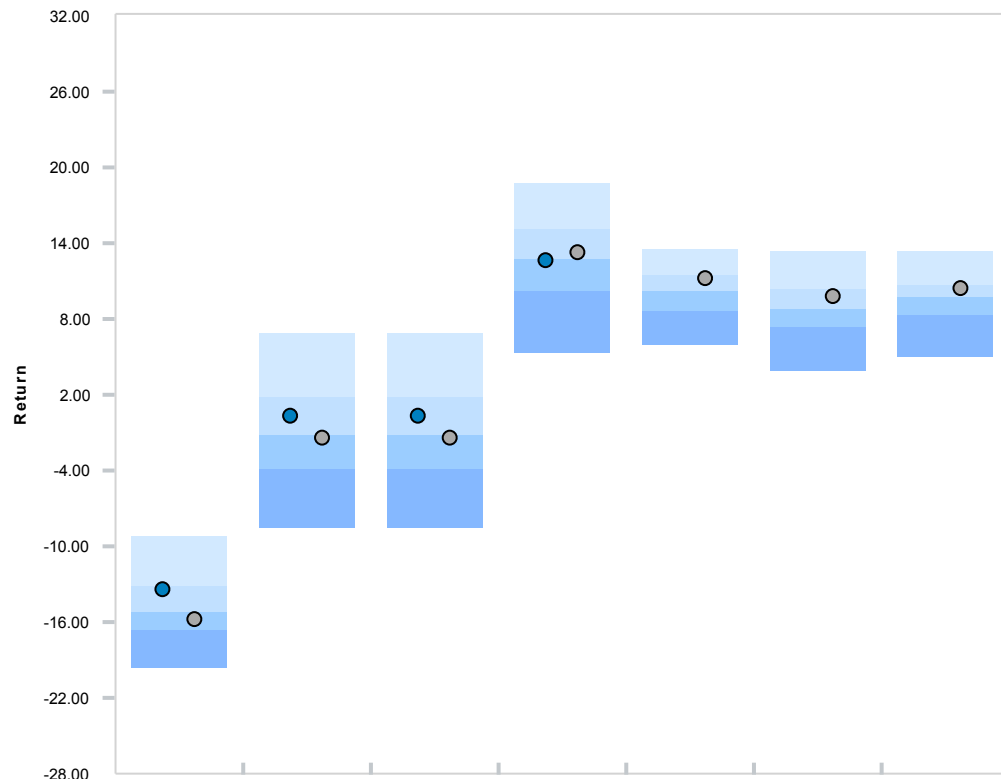


**Gain/Loss Summary**  
**Seizert Large Value**  
As of December 31, 2018

<b>Gain/Loss Summary</b>							
	<b>QTD</b>	<b>YTD</b>	<b>1 YR</b>	<b>3 YR</b>	<b>5 YR</b>	<b>7 YR</b>	<b>10 YR</b>
Seizert Large Value							
<b>Beginning Market Value</b>	<b>18,104,804</b>	<b>14,335,275</b>	<b>14,335,275</b>	<b>7,700,726</b>	-	-	-
Net Contributions	-	2,535,892	2,535,892	5,554,447	-	-	-
Gain/Loss	-2,701,599	-1,467,962	-1,467,962	2,148,032	-	-	-
<b>Ending Market Value</b>	<b>15,403,205</b>	<b>15,403,205</b>	<b>15,403,205</b>	<b>15,403,205</b>	-	-	-



Peer Group Analysis - IM U.S. Large Cap Growth Equity (SA+CF)



	QTR	FYTD	1 YR	2 YR	3 YR	4 YR	5 YR
● Clearbridge LCG	-13.40 (28)	0.30 (40)	0.30 (40)	12.61 (53)	N/A	N/A	N/A
● Russell 1000 Gr	-15.89 (62)	-1.51 (54)	-1.51 (54)	13.24 (41)	11.15 (29)	9.75 (35)	10.40 (31)
Median	-15.14	-1.17	-1.17	12.74	10.19	8.80	9.66

	2017	2016	2015	2014	2013
● Clearbridge LCG	26.42 (69)	N/A	N/A	N/A	N/A
● Russell 1000 Gr	30.21 (38)	7.08 (26)	5.67 (46)	13.05 (39)	33.48 (59)
Median	28.11	4.65	5.07	11.99	34.52

Comparative Performance

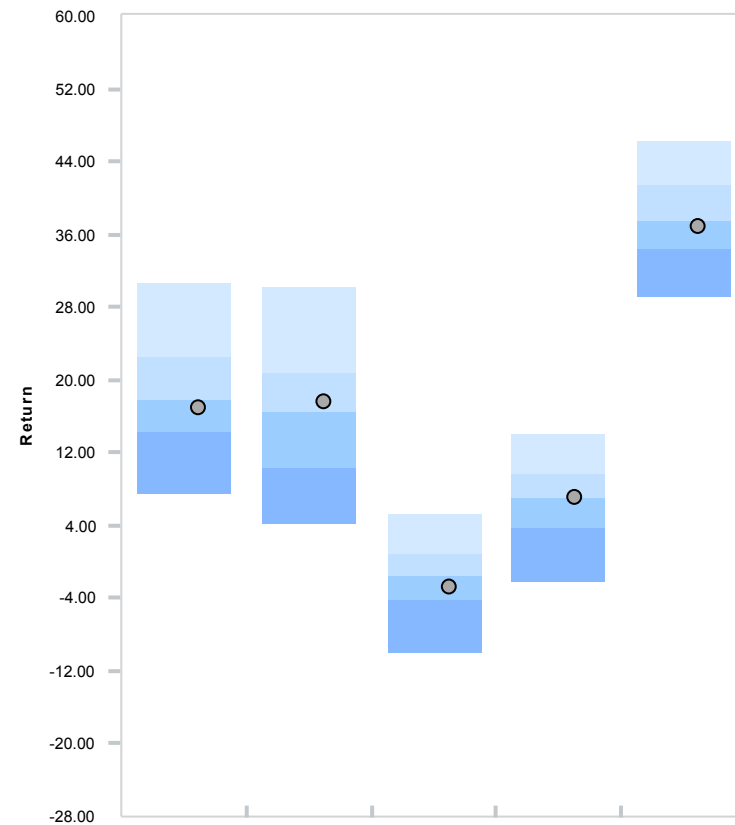
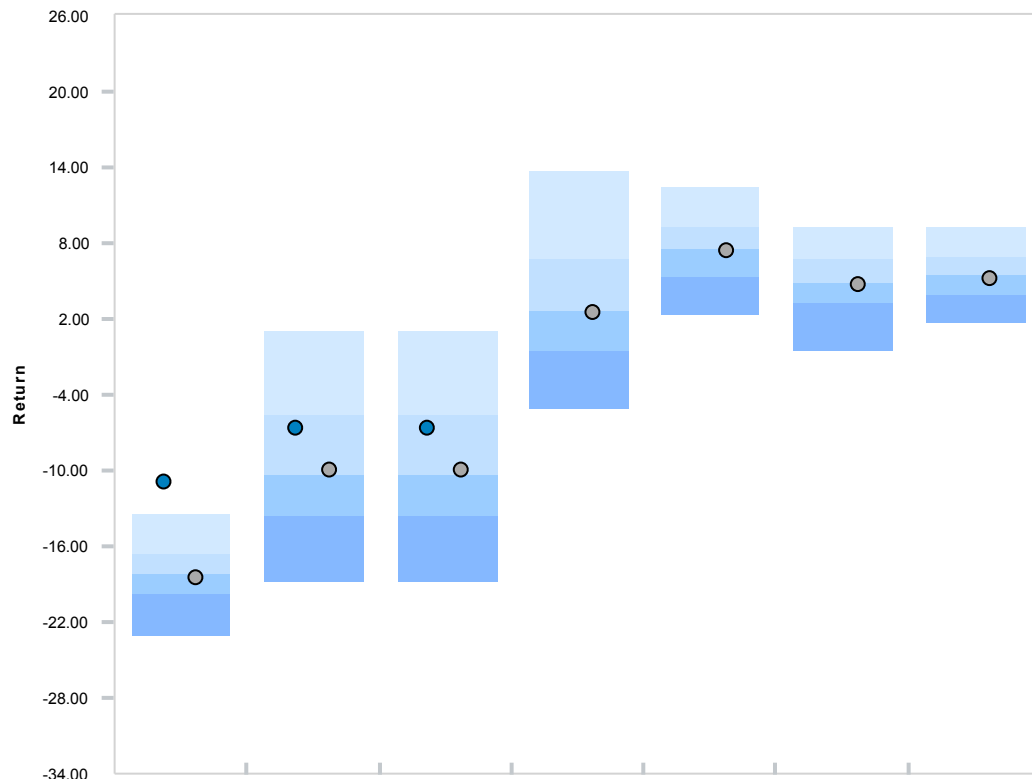
	1 Qtr Ending Sep-2018	1 Qtr Ending Jun-2018	1 Qtr Ending Mar-2018	1 Qtr Ending Dec-2017	1 Qtr Ending Sep-2017	1 Qtr Ending Jun-2017
Clearbridge LCG	7.94 (55)	5.51 (47)	1.70 (56)	7.17 (40)	5.37 (51)	4.78 (52)
Russell 1000 Gr	9.17 (23)	5.76 (42)	1.42 (61)	7.86 (21)	5.90 (35)	4.67 (55)
IM U.S. Large Cap Growth Equity (SA+CF) Median	8.13	5.31	2.07	6.90	5.41	4.92



<b>Gain/Loss Summary</b>							
	<b>QTD</b>	<b>YTD</b>	<b>1 YR</b>	<b>3 YR</b>	<b>5 YR</b>	<b>7 YR</b>	<b>10 YR</b>
Clearbridge LCG							
<b>Beginning Market Value</b>	<b>17,662,083</b>	<b>14,684,559</b>	<b>14,684,559</b>	-	-	-	-
Net Contributions	-	474,163	474,163	-	-	-	-
Gain/Loss	-2,386,059	117,302	117,302	-	-	-	-
<b>Ending Market Value</b>	<b>15,276,024</b>	<b>15,276,024</b>	<b>15,276,024</b>	-	-	-	-



Peer Group Analysis - IM U.S. SMID Cap Equity (SA+CF)



	QTR	FYTD	1 YR	2 YR	3 YR	4 YR	5 YR
● Clarkston	-10.93 (2)	-6.69 (31)	-6.69 (31)	N/A	N/A	N/A	N/A
● Russell 2500	-18.49 (58)	-10.00 (49)	-10.00 (49)	2.53 (51)	7.32 (52)	4.67 (56)	5.15 (59)
Median	-18.17	-10.32	-10.32	2.68	7.50	4.92	5.40

	2017	2016	2015	2014	2013
● Clarkston	N/A	N/A	N/A	N/A	N/A
● Russell 2500	16.81 (59)	17.59 (37)	-2.90 (67)	7.07 (50)	36.80 (55)
Median	17.83	16.37	-1.42	6.97	37.56

Comparative Performance

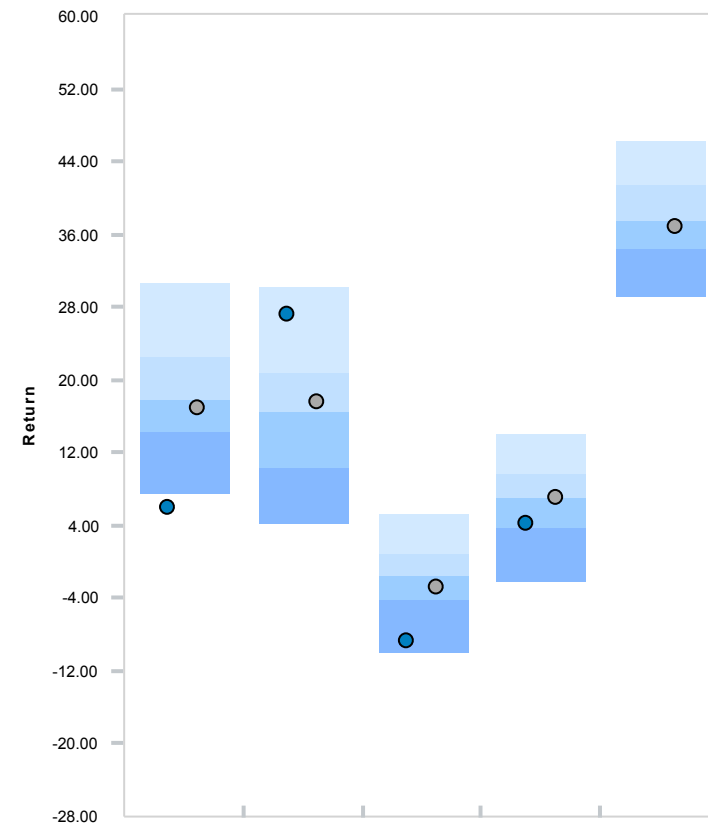
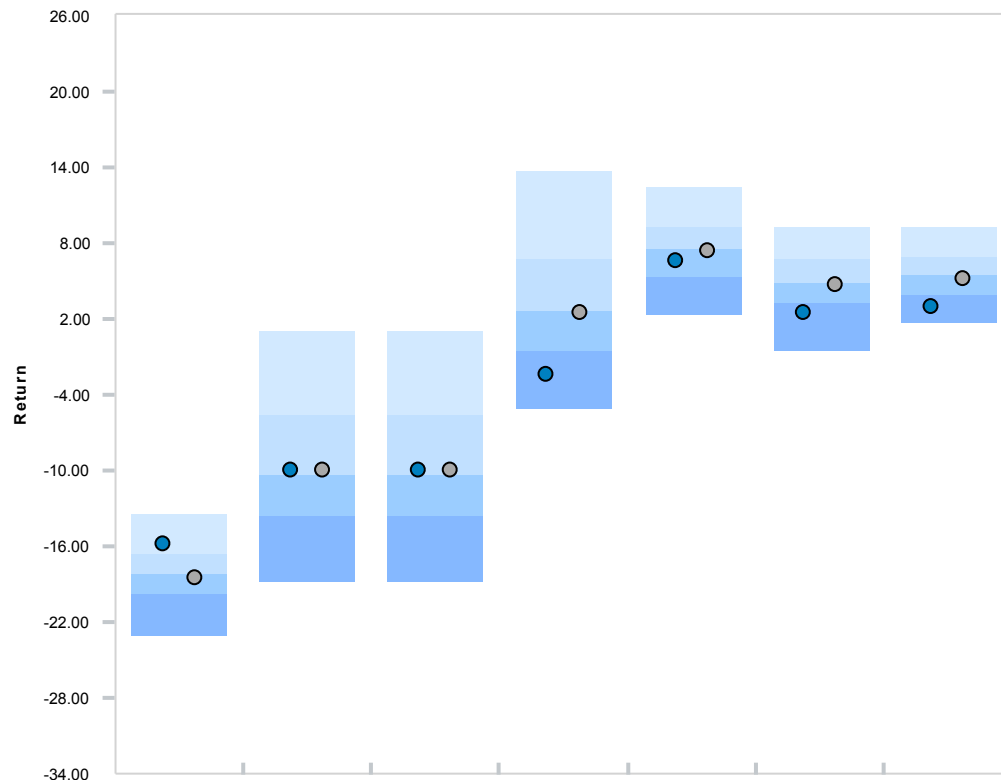
	1 Qtr Ending Sep-2018	1 Qtr Ending Jun-2018	1 Qtr Ending Mar-2018	1 Qtr Ending Dec-2017	1 Qtr Ending Sep-2017	1 Qtr Ending Jun-2017
Clarkston	1.08 (91)	2.68 (75)	0.94 (33)	4.03 (79)	4.57 (44)	1.86 (64)
Russell 2500	4.70 (52)	5.71 (30)	-0.24 (55)	5.24 (59)	4.74 (39)	2.13 (58)
IM U.S. SMID Cap Equity (SA+CF) Median	4.79	4.31	-0.07	5.53	4.32	2.48



<b>Gain/Loss Summary</b>							
	<b>QTD</b>	<b>YTD</b>	<b>1 YR</b>	<b>3 YR</b>	<b>5 YR</b>	<b>7 YR</b>	<b>10 YR</b>
Clarkston Capital							
<b>Beginning Market Value</b>	<b>14,255,730</b>	<b>16,140,123</b>	<b>16,140,123</b>	-	-	-	-
Net Contributions	-	-2,550,000	-2,550,000	-	-	-	-
Gain/Loss	-1,585,250	-919,643	-919,643	-	-	-	-
<b>Ending Market Value</b>	<b>12,670,480</b>	<b>12,670,480</b>	<b>12,670,480</b>	-	-	-	-



Peer Group Analysis - IM U.S. SMID Cap Equity (SA+CF)



	QTR	FYTD	1 YR	2 YR	3 YR	4 YR	5 YR
● Seizert SMID CC	-15.89 (19)	-10.07 (49)	-10.07 (49)	-2.44 (85)	6.59 (62)	2.54 (84)	2.89 (89)
● Russell 2500	-18.49 (58)	-10.00 (49)	-10.00 (49)	2.53 (51)	7.32 (52)	4.67 (56)	5.15 (59)
Median	-18.17	-10.32	-10.32	2.68	7.50	4.92	5.40

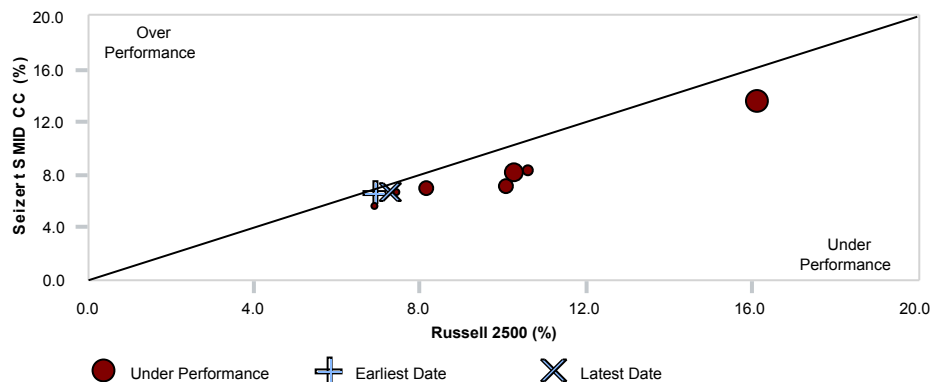
	2017	2016	2015	2014	2013
● Seizert SMID CC	5.83 (97)	27.24 (8)	-8.71 (93)	4.28 (72)	N/A
● Russell 2500	16.81 (59)	17.59 (37)	-2.90 (67)	7.07 (50)	36.80 (55)
Median	17.83	16.37	-1.42	6.97	37.56

Comparative Performance

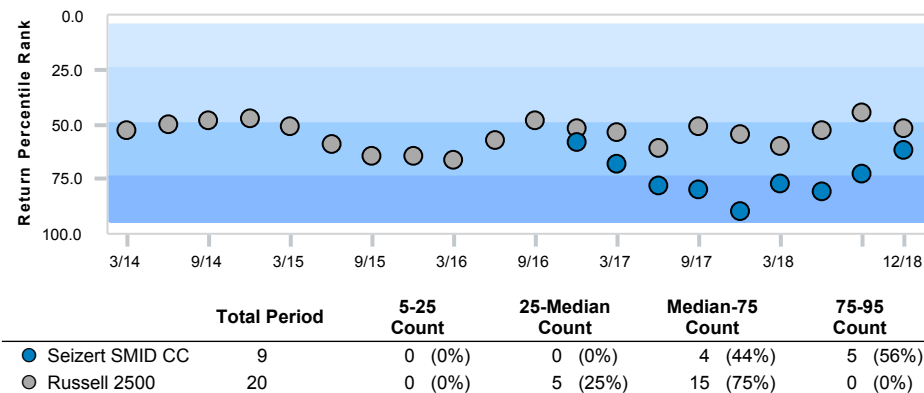
	1 Qtr Ending Sep-2018	1 Qtr Ending Jun-2018	1 Qtr Ending Mar-2018	1 Qtr Ending Dec-2017	1 Qtr Ending Sep-2017	1 Qtr Ending Jun-2017
Seizert SMID CC	2.12 (80)	3.14 (68)	1.53 (28)	0.84 (98)	1.61 (95)	0.31 (85)
Russell 2500	4.70 (52)	5.71 (30)	-0.24 (55)	5.24 (59)	4.74 (39)	2.13 (58)
IM U.S. SMID Cap Equity (SA+CF) Median	4.79	4.31	-0.07	5.53	4.32	2.48



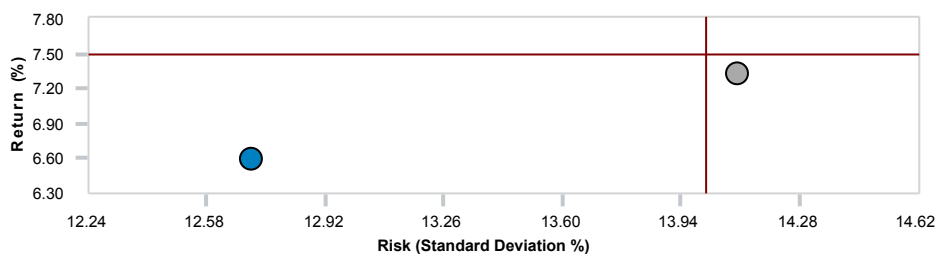
### 3 Yr Rolling Under/Over Performance - 5 Years



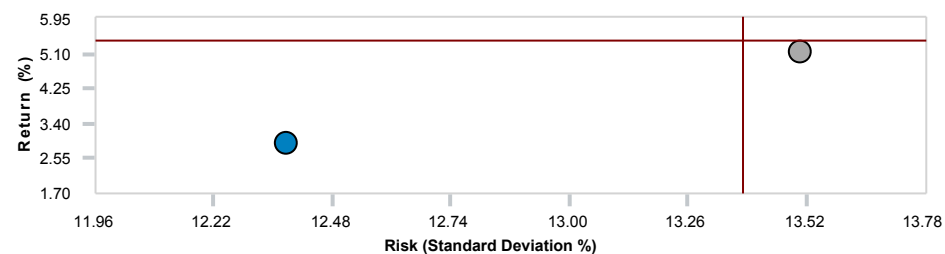
### 3 Yr Rolling Percentile Ranking - 5 Years



### Peer Group Scattergram - 3 Years



### Peer Group Scattergram - 5 Years



### Historical Statistics - 3 Years

	Tracking Error	Up Market Capture	Down Market Capture	Alpha	Information Ratio	Sharpe Ratio	Beta	Downside Risk
Seizert SMID CC	5.42	89.83	90.34	0.47	-0.16	0.49	0.83	8.61
Russell 2500	0.00	100.00	100.00	0.00	N/A	0.50	1.00	10.40

### Historical Statistics - 5 Years

	Tracking Error	Up Market Capture	Down Market Capture	Alpha	Information Ratio	Sharpe Ratio	Beta	Downside Risk
Seizert SMID CC	5.20	83.74	92.87	-1.41	-0.45	0.24	0.85	8.59
Russell 2500	0.00	100.00	100.00	0.00	N/A	0.40	1.00	9.64

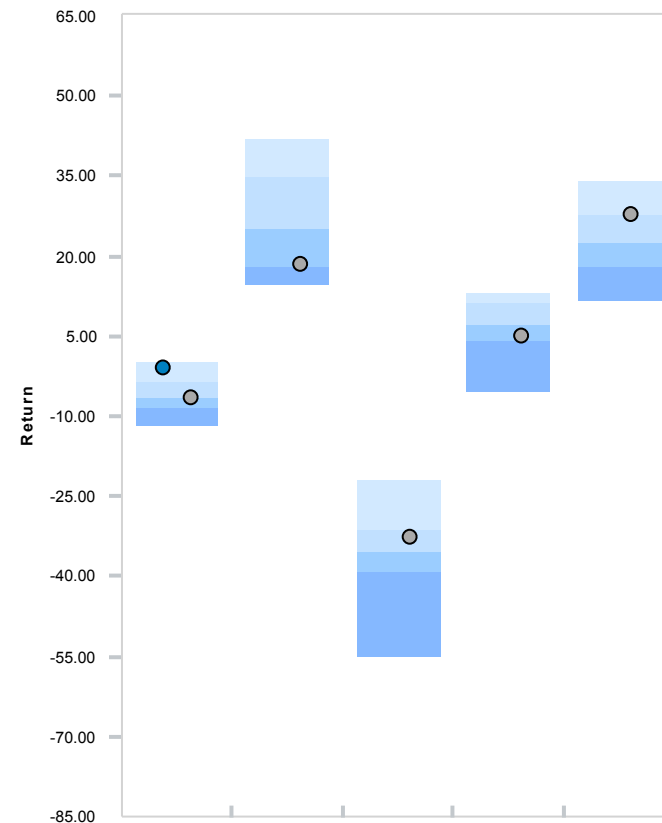
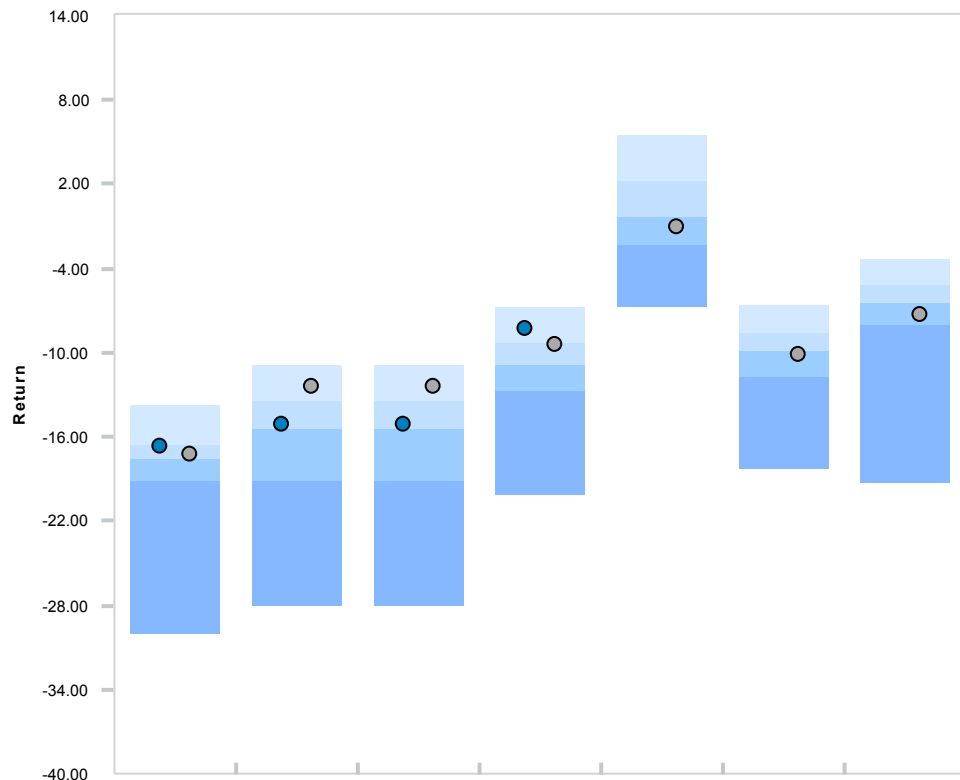


**Gain/Loss Summary**  
**Seizert SMID Cap Core**  
As of December 31, 2018

<b>Gain/Loss Summary</b>							
	<b>QTD</b>	<b>YTD</b>	<b>1 YR</b>	<b>3 YR</b>	<b>5 YR</b>	<b>7 YR</b>	<b>10 YR</b>
Seizert SMID Cap Core							
<b>Beginning Market Value</b>	<b>16,222,014</b>	<b>21,499,083</b>	<b>21,499,083</b>	<b>11,479,304</b>	<b>9,163,711</b>	-	-
Net Contributions	-2,200,000	-8,648,502	-8,648,502	-470,052	2,518,645	-	-
Gain/Loss	-2,380,380	-1,208,947	-1,208,947	632,382	-40,723	-	-
<b>Ending Market Value</b>	<b>11,641,633</b>	<b>11,641,633</b>	<b>11,641,633</b>	<b>11,641,633</b>	<b>11,641,633</b>	-	-



Peer Group Analysis - IM Energy MLP (MF)



	QTR	FYTD	1 YR	2 YR	3 YR	4 YR	5 YR
● Tortoise MLP (TORIX)	-16.76 (28)	-15.14 (46)	-15.14 (46)	-8.36 (19)	N/A	N/A	N/A
● Alerian MLP Index	-17.30 (36)	-12.42 (16)	-12.42 (16)	-9.52 (29)	-1.06 (61)	-10.11 (54)	-7.31 (63)
Median	-17.59	-15.36	-15.36	-10.89	-0.37	-9.84	-6.42

	2017	2016	2015	2014	2013
● Tortoise MLP (TORIX)	-1.03 (13)	N/A	N/A	N/A	N/A
● Alerian MLP Index	-6.52 (50)	18.31 (73)	-32.59 (33)	4.80 (69)	27.58 (27)
Median	-6.56	25.18	-35.47	7.21	22.52

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
Tortoise MLP (TORIX)	0.74 (88)	13.21 (30)	-10.62 (32)	1.00 (19)	0.59 (35)	-4.89 (24)
Alerian MLP Index	6.57 (13)	11.80 (54)	-11.12 (50)	-0.95 (65)	-3.05 (94)	-6.35 (46)
IM Energy MLP (MF) Median	2.76	11.89	-11.15	-0.44	-0.73	-6.54

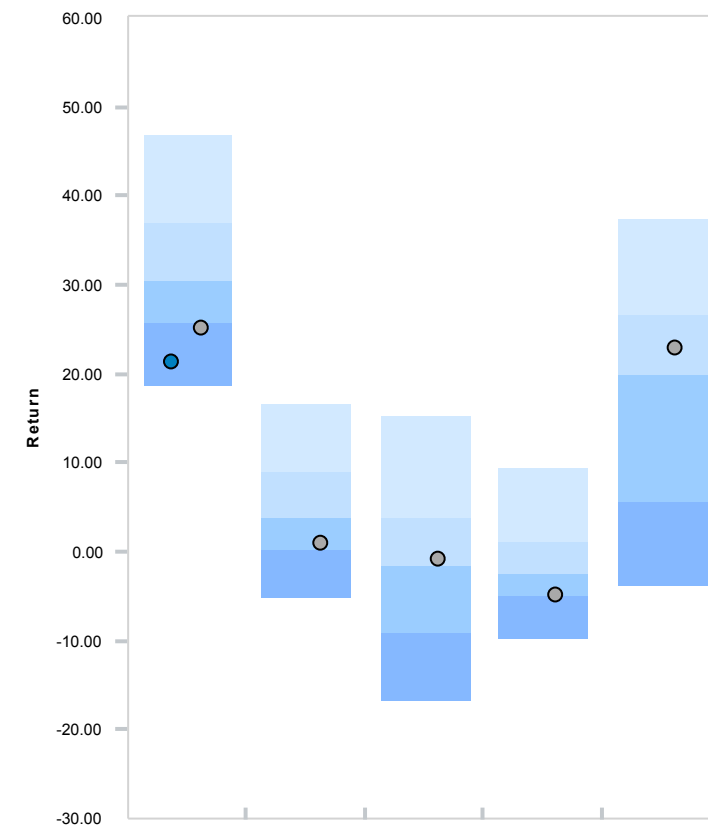
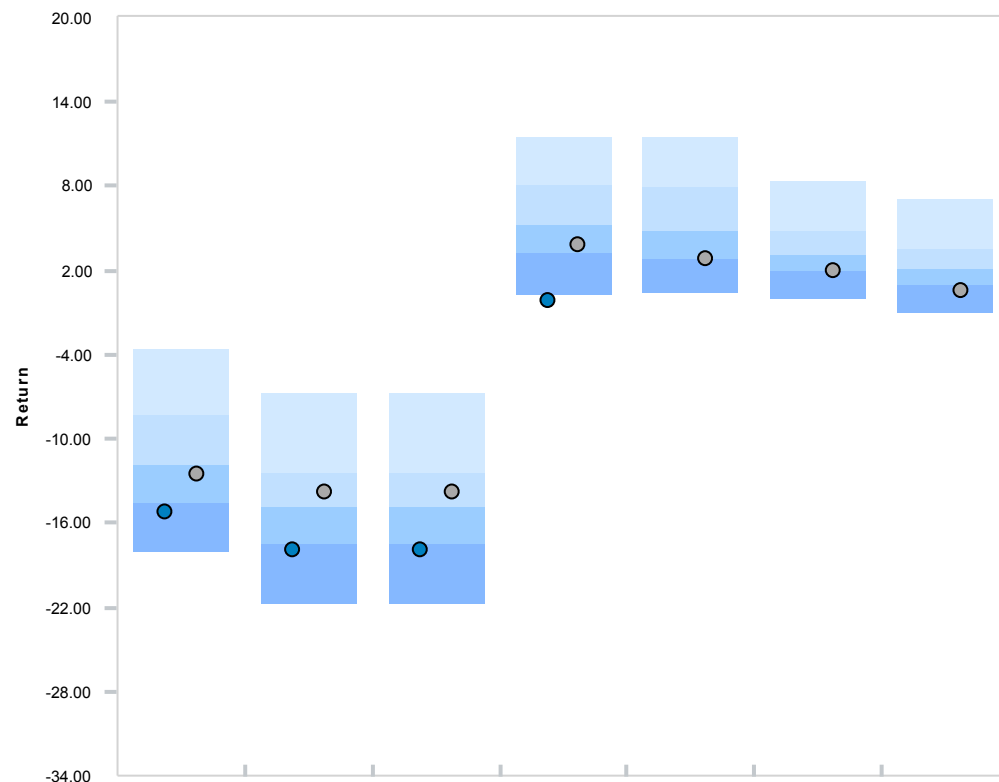


**Gain/Loss Summary**  
**Tortoise MLP & Pipeline (TORIX)**  
As of December 31, 2018

<b>Gain/Loss Summary</b>							
	<b>QTD</b>	<b>YTD</b>	<b>1 YR</b>	<b>3 YR</b>	<b>5 YR</b>	<b>7 YR</b>	<b>10 YR</b>
Tortoise MLP & Pipeline (TORIX)							
<b>Beginning Market Value</b>	<b>4,529,922</b>	<b>4,443,590</b>	<b>4,443,590</b>	-	-	-	-
Net Contributions	-	-	-	-	-	-	-
Gain/Loss	-759,210	-672,878	-672,878	-	-	-	-
<b>Ending Market Value</b>	<b>3,770,712</b>	<b>3,770,712</b>	<b>3,770,712</b>	-	-	-	-



Peer Group Analysis - IM International Equity (SA+CF)



	QTR	FYTD	1 YR	2 YR	3 YR	4 YR	5 YR
● Cambiar Int'l	-15.30 (81)	-17.90 (79)	-17.90 (79)	-0.19 (96)	N/A	N/A	N/A
● MSCI EAFE (Net)	-12.54 (56)	-13.79 (38)	-13.79 (38)	3.82 (69)	2.87 (74)	1.94 (75)	0.53 (82)
Median	-11.87	-14.86	-14.86	5.26	4.84	3.04	2.07

	2017	2016	2015	2014	2013
● Cambiar Int'l	21.33 (92)	N/A	N/A	N/A	N/A
● MSCI EAFE (Net)	25.03 (80)	1.00 (69)	-0.81 (48)	-4.90 (74)	22.78 (41)
Median	30.51	3.74	-1.58	-2.51	19.95

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
Cambiar Int'l	-0.14 (54)	-1.91 (39)	-1.04 (69)	4.16 (73)	6.55 (48)	5.01 (79)
MSCI EAFE (Net)	1.35 (27)	-1.24 (30)	-1.53 (80)	4.23 (72)	5.40 (68)	6.12 (64)
IM International Equity (SA+CF) Median	0.12	-2.67	-0.09	5.54	6.35	6.70

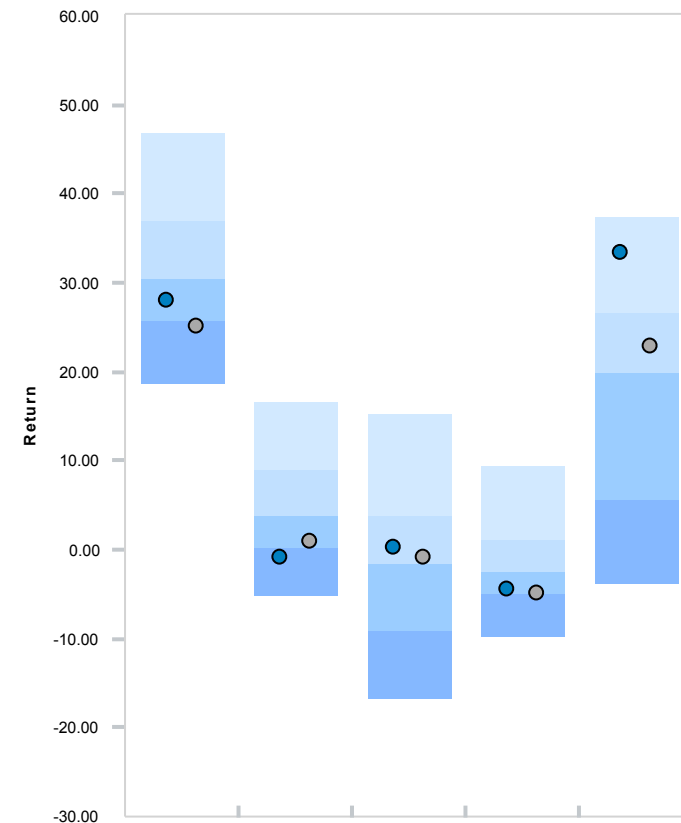
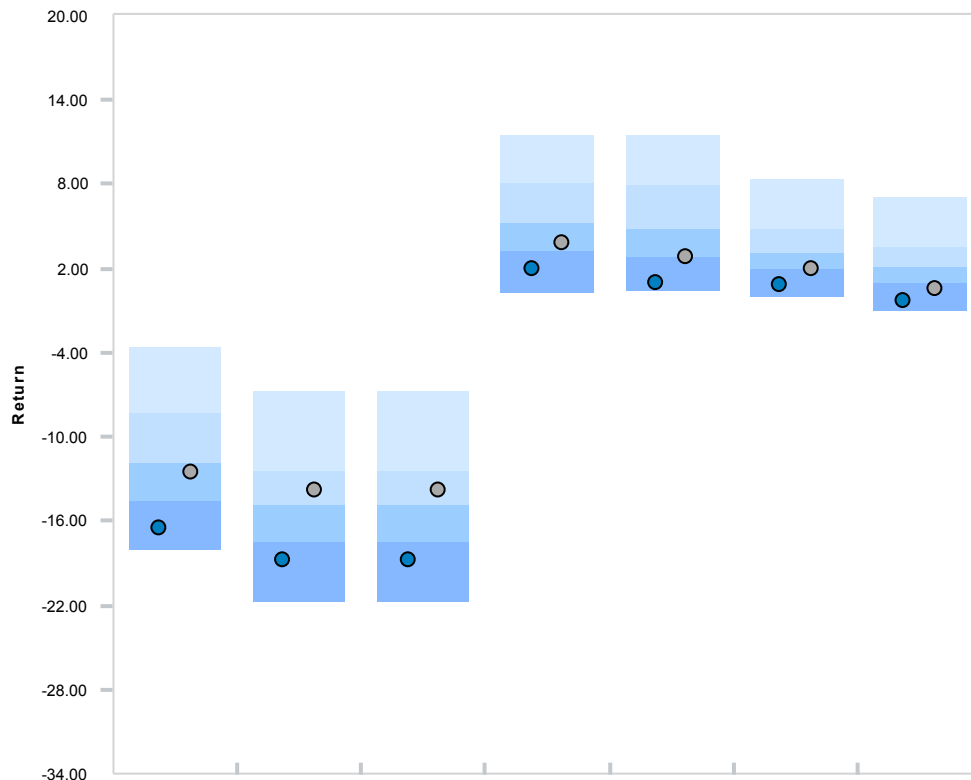


**Gain/Loss Summary**  
**Cambiar International**  
 As of December 31, 2018

<b>Gain/Loss Summary</b>							
	<b>QTD</b>	<b>YTD</b>	<b>1 YR</b>	<b>3 YR</b>	<b>5 YR</b>	<b>7 YR</b>	<b>10 YR</b>
Cambiar International							
<b>Beginning Market Value</b>	<b>15,205,544</b>	<b>10,674,624</b>	<b>10,674,624</b>	-	-	-	-
Net Contributions	-	5,149,740	5,149,740	-	-	-	-
Gain/Loss	-2,349,483	-2,968,303	-2,968,303	-	-	-	-
<b>Ending Market Value</b>	<b>12,856,061</b>	<b>12,856,061</b>	<b>12,856,061</b>	-	-	-	-



Peer Group Analysis - IM International Equity (SA+CF)



	QTR	FYTD	1 YR	2 YR	3 YR	4 YR	5 YR
● Renaissance Int'l Eq	-16.56 (89)	-18.85 (85)	-18.85 (85)	1.91 (88)	0.95 (93)	0.76 (90)	-0.29 (91)
● MSCI EAFE (Net)	-12.54 (56)	-13.79 (38)	-13.79 (38)	3.82 (69)	2.87 (74)	1.94 (75)	0.53 (82)
Median	-11.87	-14.86	-14.86	5.26	4.84	3.04	2.07

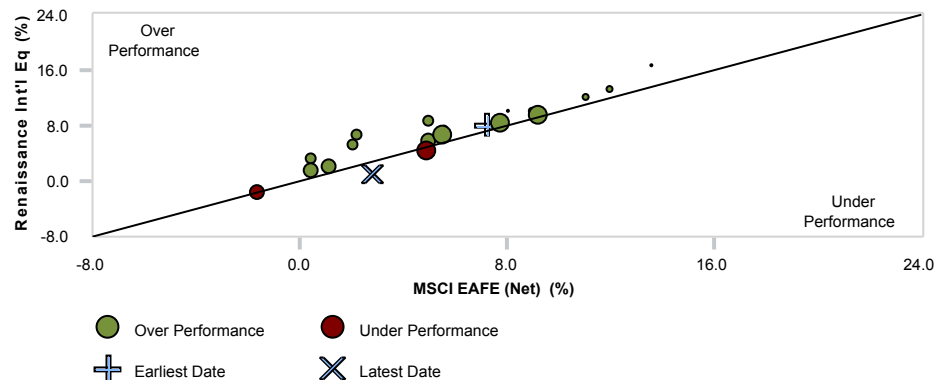
	2017	2016	2015	2014	2013
● Renaissance Int'l Eq	27.97 (63)	-0.93 (82)	0.18 (43)	-4.37 (69)	33.29 (9)
● MSCI EAFE (Net)	25.03 (80)	1.00 (69)	-0.81 (48)	-4.90 (74)	22.78 (41)
Median	30.51	3.74	-1.58	-2.51	19.95

Comparative Performance

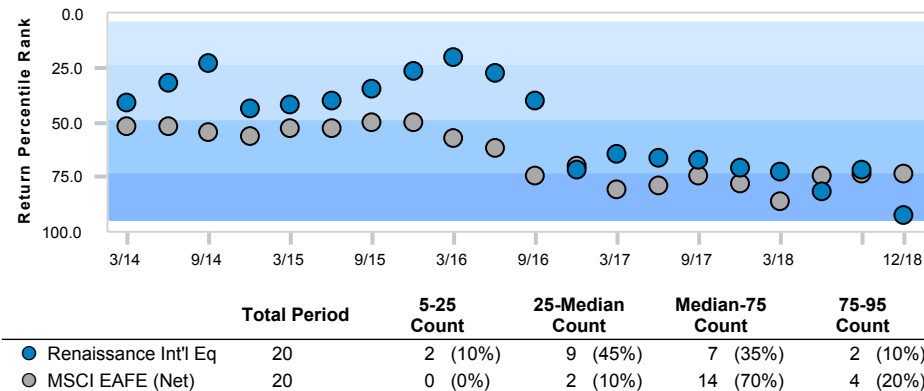
	1 Qtr Ending Sep-2018	1 Qtr Ending Jun-2018	1 Qtr Ending Mar-2018	1 Qtr Ending Dec-2017	1 Qtr Ending Sep-2017	1 Qtr Ending Jun-2017
Renaissance Int'l Eq	1.74 (20)	-4.79 (70)	0.40 (41)	2.60 (91)	5.59 (64)	7.01 (45)
MSCI EAFE (Net)	1.35 (27)	-1.24 (30)	-1.53 (80)	4.23 (72)	5.40 (68)	6.12 (64)
IM International Equity (SA+CF) Median	0.12	-2.67	-0.09	5.54	6.35	6.70



### 3 Yr Rolling Under/Over Performance - 5 Years



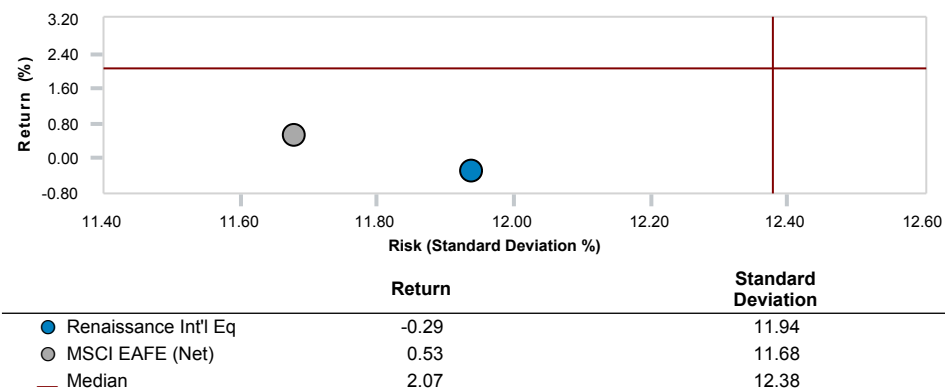
### 3 Yr Rolling Percentile Ranking - 5 Years



### Peer Group Scattergram - 3 Years



### Peer Group Scattergram - 5 Years



### Historical Statistics - 3 Years

	Tracking Error	Up Market Capture	Down Market Capture	Alpha	Information Ratio	Sharpe Ratio	Beta	Downside Risk
Renaissance Int'l Eq	4.28	90.80	101.18	-1.80	-0.42	0.06	1.01	9.13
MSCI EAFE (Net)	0.00	100.00	100.00	0.00	N/A	0.22	1.00	8.10

### Historical Statistics - 5 Years

	Tracking Error	Up Market Capture	Down Market Capture	Alpha	Information Ratio	Sharpe Ratio	Beta	Downside Risk
Renaissance Int'l Eq	4.55	86.14	90.08	-0.72	-0.17	-0.01	0.95	8.89
MSCI EAFE (Net)	0.00	100.00	100.00	0.00	N/A	0.05	1.00	8.26

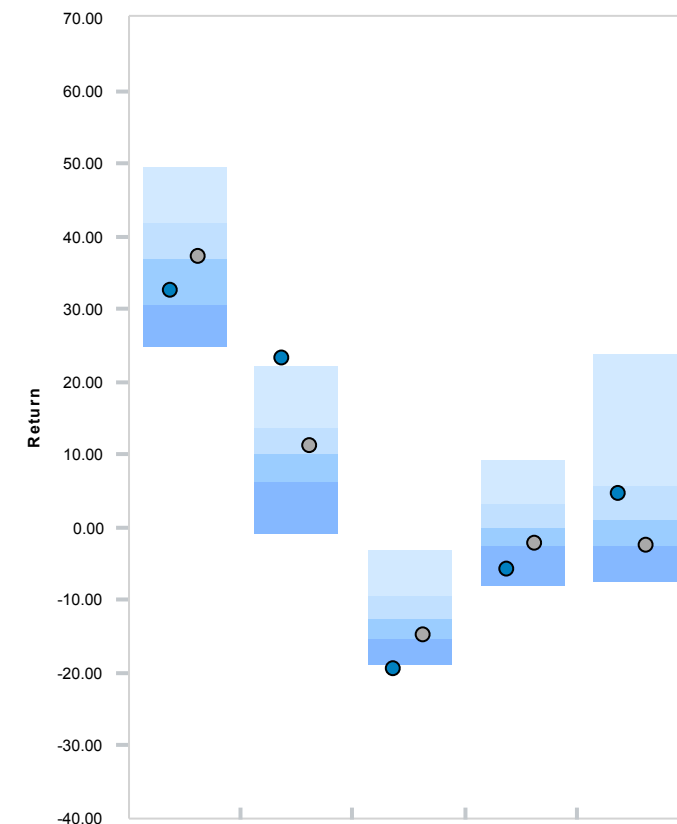
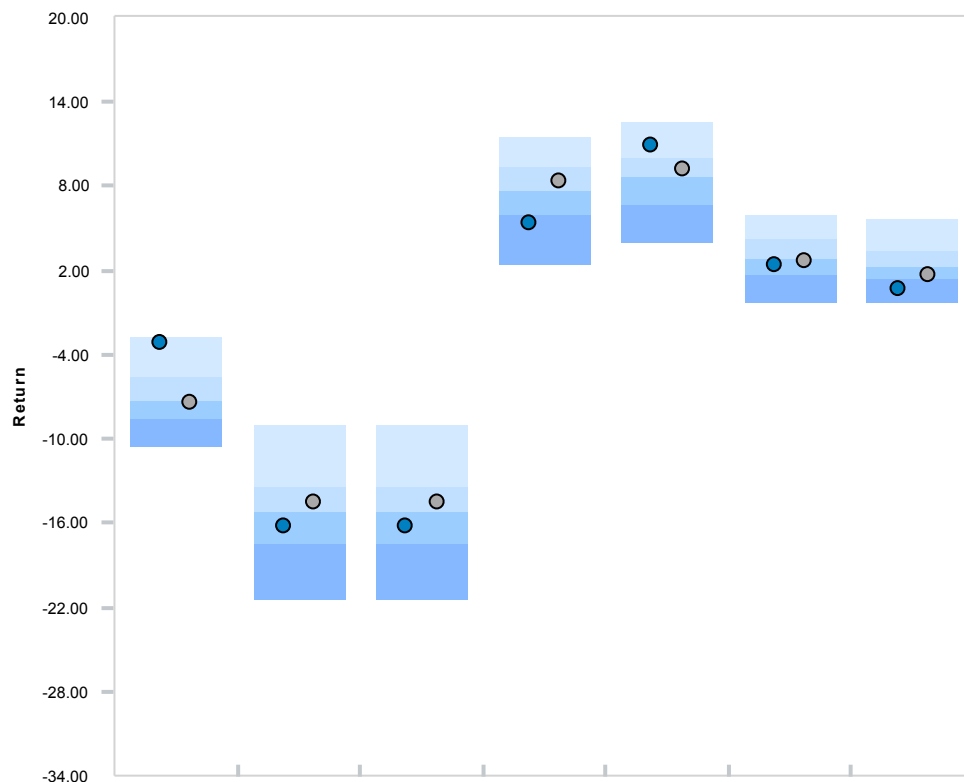


**Gain/Loss Summary**  
**Renaissance Int'l Equity**  
As of December 31, 2018

<b>Gain/Loss Summary</b>							
	<b>QTD</b>	<b>YTD</b>	<b>1 YR</b>	<b>3 YR</b>	<b>5 YR</b>	<b>7 YR</b>	<b>10 YR</b>
Renaissance Int'l Equity							
<b>Beginning Market Value</b>	<b>15,044,804</b>	<b>12,069,395</b>	<b>12,069,395</b>	<b>9,424,547</b>	<b>11,782,601</b>	<b>7,955,483</b>	<b>6,674,640</b>
Net Contributions	-	3,490,453	3,490,453	4,302,167	2,355,287	2,392,320	1,411,680
Gain/Loss	-2,508,031	-3,023,076	-3,023,076	-1,189,942	-1,601,115	2,188,970	4,450,453
<b>Ending Market Value</b>	<b>12,536,773</b>	<b>12,536,773</b>	<b>12,536,773</b>	<b>12,536,773</b>	<b>12,536,773</b>	<b>12,536,773</b>	<b>12,536,773</b>



Peer Group Analysis - IM Emerging Markets Equity (SA+CF)



	QTR	FYTD	1 YR	2 YR	3 YR	4 YR	5 YR
● Lazard Emerging	-3.21 (7)	-16.25 (62)	-16.25 (62)	5.30 (81)	10.97 (16)	2.39 (62)	0.68 (89)
● MSCI Emerging (Net)	-7.47 (55)	-14.58 (41)	-14.58 (41)	8.29 (40)	9.25 (41)	2.63 (56)	1.65 (67)
Median	-7.28	-15.23	-15.23	7.62	8.69	2.86	2.25

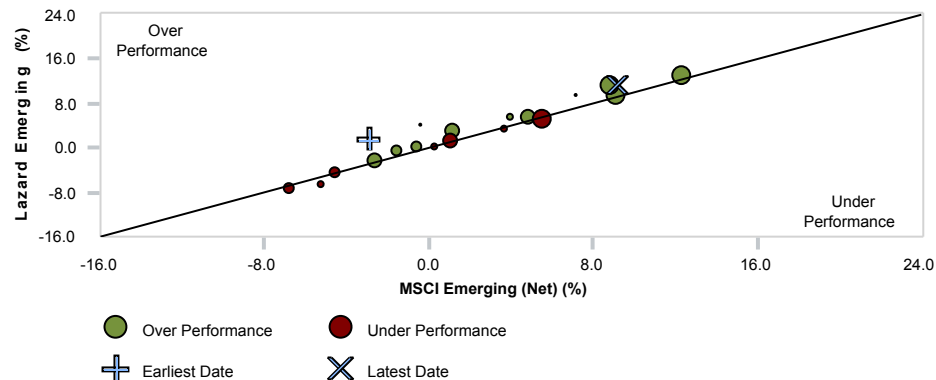
	2017	2016	2015	2014	2013
● Lazard Emerging	32.39 (68)	23.25 (5)	-19.58 (97)	-5.87 (92)	4.53 (29)
● MSCI Emerging (Net)	37.28 (47)	11.19 (43)	-14.92 (69)	-2.19 (74)	-2.60 (76)
Median	36.92	10.16	-12.59	-0.05	1.00

Comparative Performance

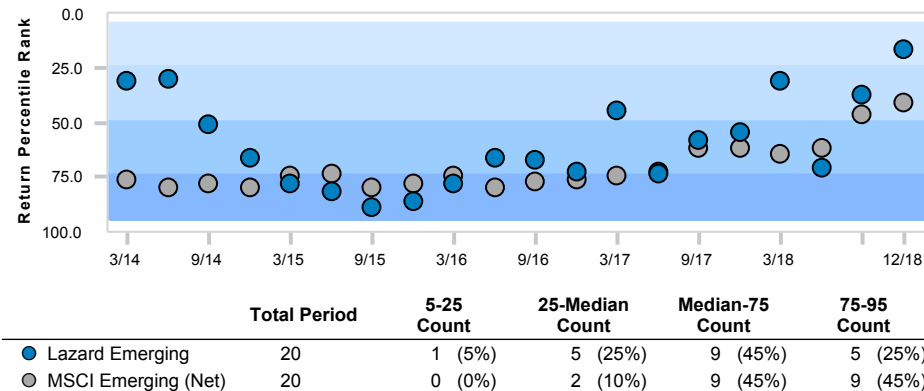
	1 Qtr Ending Sep-2018	1 Qtr Ending Jun-2018	1 Qtr Ending Mar-2018	1 Qtr Ending Dec-2017	1 Qtr Ending Sep-2017	1 Qtr Ending Jun-2017
Lazard Emerging	-1.35 (39)	-15.27 (99)	3.51 (14)	7.57 (32)	8.27 (38)	1.48 (99)
MSCI Emerging (Net)	-1.09 (37)	-7.96 (45)	1.42 (60)	7.44 (37)	7.89 (43)	6.27 (53)
IM Emerging Markets Equity (SA+CF) Median	-2.31	-8.24	1.86	6.94	7.46	6.43



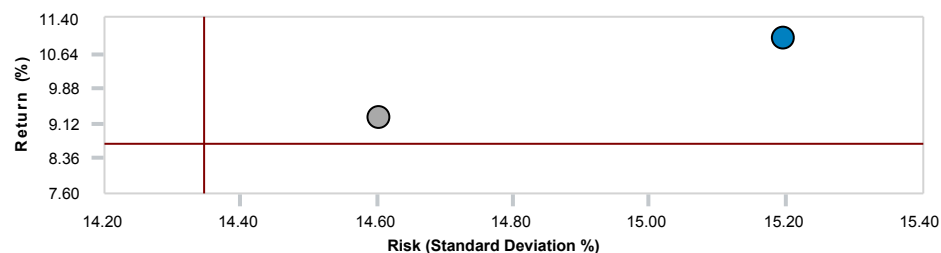
### 3 Yr Rolling Under/Over Performance - 5 Years



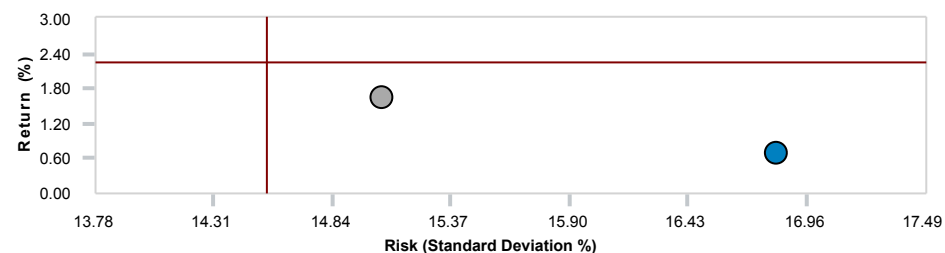
### 3 Yr Rolling Percentile Ranking - 5 Years



### Peer Group Scattergram - 3 Years



### Peer Group Scattergram - 5 Years



### Historical Statistics - 3 Years

	Tracking Error	Up Market Capture	Down Market Capture	Alpha	Information Ratio	Sharpe Ratio	Beta	Downside Risk
Lazard Emerging	6.99	108.03	102.19	2.42	0.24	0.70	0.93	8.74
MSCI Emerging (Net)	0.00	100.00	100.00	0.00	N/A	0.61	1.00	8.61

### Historical Statistics - 5 Years

	Tracking Error	Up Market Capture	Down Market Capture	Alpha	Information Ratio	Sharpe Ratio	Beta	Downside Risk
Lazard Emerging	6.67	108.79	113.48	-0.74	-0.10	0.09	1.03	11.83
MSCI Emerging (Net)	0.00	100.00	100.00	0.00	N/A	0.14	1.00	10.26

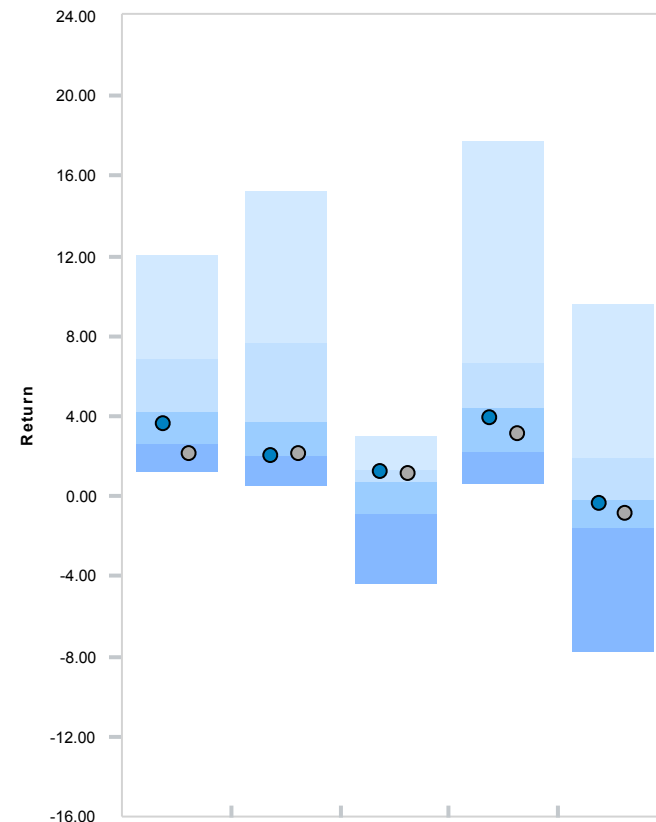
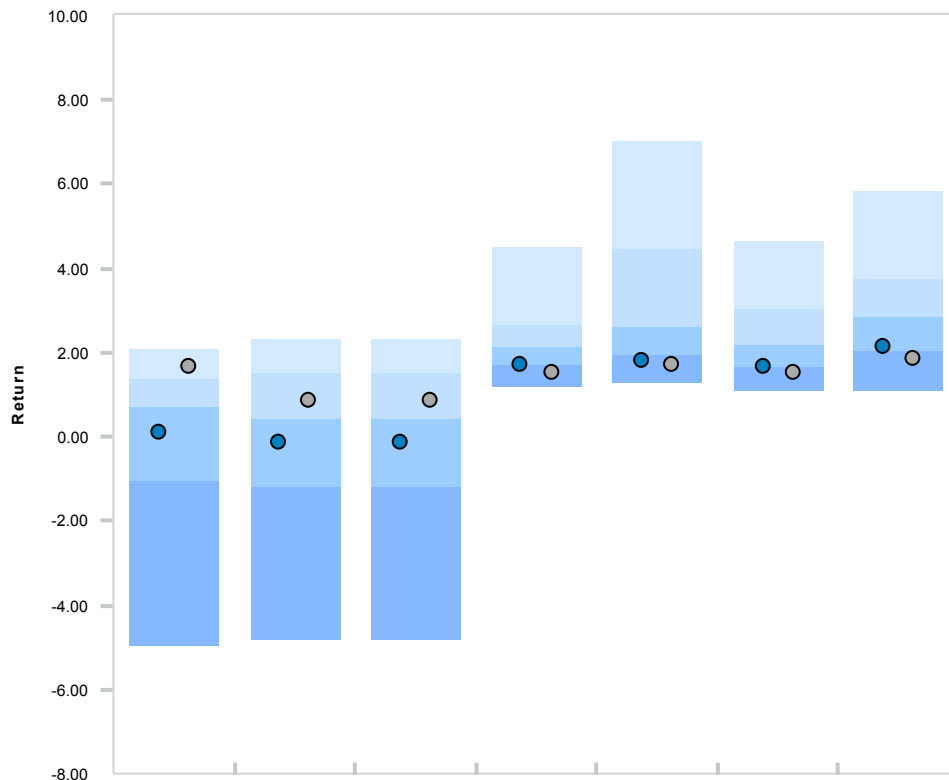


**Gain/Loss Summary**  
**Lazard Emerging**  
As of December 31, 2018

<b>Gain/Loss Summary</b>							
	<b>QTD</b>	<b>YTD</b>	<b>1 YR</b>	<b>3 YR</b>	<b>5 YR</b>	<b>7 YR</b>	<b>10 YR</b>
Lazard Emerging							
<b>Beginning Market Value</b>	<b>13,162,620</b>	<b>12,049,311</b>	<b>12,049,311</b>	<b>7,384,428</b>	<b>9,746,845</b>	<b>5,316,691</b>	-
Net Contributions	-	3,501,183	3,501,183	3,590,153	3,680,243	6,679,139	-
Gain/Loss	-447,886	-2,835,760	-2,835,760	1,740,153	-712,353	718,904	-
<b>Ending Market Value</b>	<b>12,714,734</b>	<b>12,714,734</b>	<b>12,714,734</b>	<b>12,714,734</b>	<b>12,714,734</b>	<b>12,714,734</b>	-



Peer Group Analysis - IM U.S. Fixed Income (SA+CF)



	QTR	FYTD	1 YR	2 YR	3 YR	4 YR	5 YR
● Boyd Watterson Intern	0.09 (66)	-0.12 (63)	-0.12 (63)	1.72 (76)	1.83 (79)	1.68 (76)	2.13 (74)
● BB Int US Govt/Credit	1.65 (14)	0.88 (42)	0.88 (42)	1.51 (88)	1.70 (84)	1.54 (83)	1.86 (80)
Median	0.69	0.43	0.43	2.14	2.61	2.18	2.84

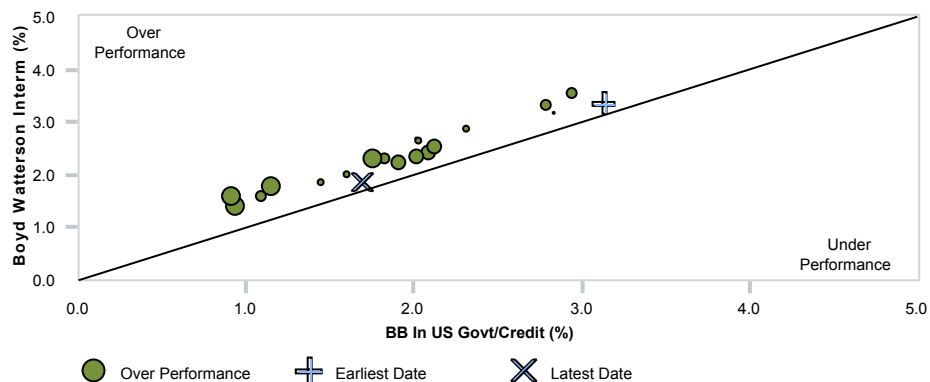
	2017	2016	2015	2014	2013
● Boyd Watterson Intern	3.59 (62)	2.05 (75)	1.25 (29)	3.92 (56)	-0.40 (54)
● BB Int US Govt/Credit	2.14 (83)	2.08 (75)	1.07 (36)	3.13 (65)	-0.86 (63)
Median	4.17	3.70	0.73	4.43	-0.20

Comparative Performance

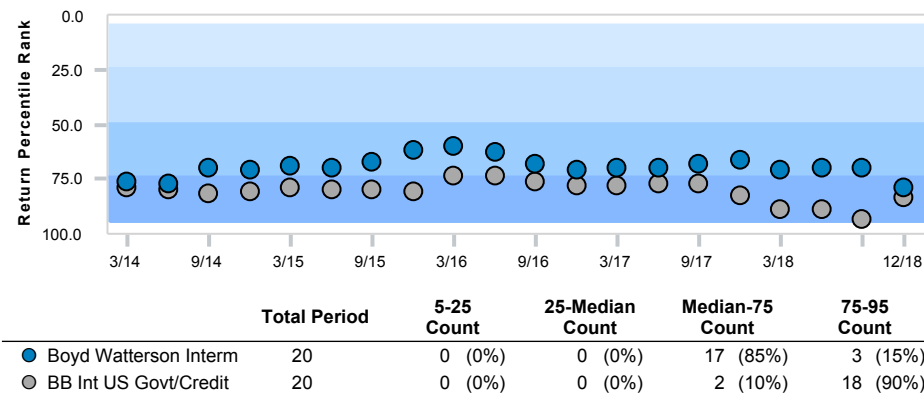
	1 Qtr Ending Sep-2018	1 Qtr Ending Jun-2018	1 Qtr Ending Mar-2018	1 Qtr Ending Dec-2017	1 Qtr Ending Sep-2017	1 Qtr Ending Jun-2017
Boyd Watterson Intern	0.70 (36)	0.14 (59)	-1.04 (61)	0.42 (57)	1.00 (50)	1.25 (60)
BB In US Govt/Credit	0.21 (70)	0.01 (68)	-0.98 (58)	-0.20 (95)	0.60 (81)	0.94 (72)
IM U.S. Fixed Income (SA+CF) Median	0.47	0.27	-0.85	0.52	0.99	1.47



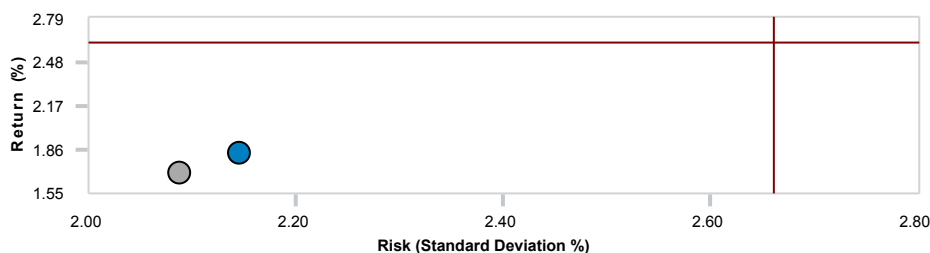
### 3 Yr Rolling Under/Over Performance - 5 Years



### 3 Yr Rolling Percentile Ranking - 5 Years

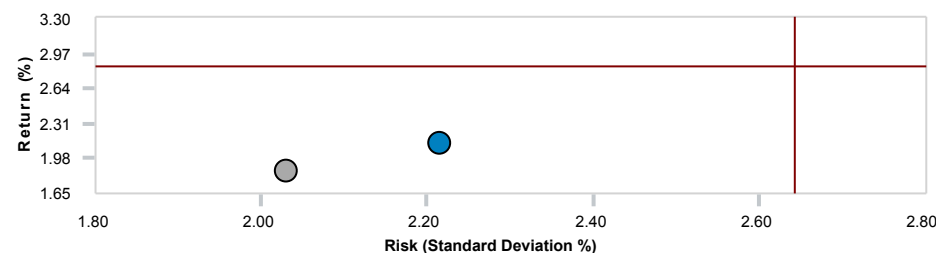


### Peer Group Scattergram - 3 Years



	Return	Standard Deviation
Boyd Watterson Intern	1.83	2.15
BB Int US Govt/Credit	1.70	2.09
Median	2.62	2.66

### Peer Group Scattergram - 5 Years



	Return	Standard Deviation
Boyd Watterson Intern	2.13	2.22
BB Int US Govt/Credit	1.86	2.03
Median	2.85	2.64

### Historical Statistics - 3 Years

	Tracking Error	Up Market Capture	Down Market Capture	Alpha	Information Ratio	Sharpe Ratio	Beta	Downside Risk
Boyd Watterson Intern	0.73	100.43	94.21	0.19	0.18	0.39	0.97	1.39
BB In US Govt/Credit	0.00	100.00	100.00	0.00	N/A	0.34	1.00	1.29

### Historical Statistics - 5 Years

	Tracking Error	Up Market Capture	Down Market Capture	Alpha	Information Ratio	Sharpe Ratio	Beta	Downside Risk
Boyd Watterson Intern	0.64	108.92	103.37	0.19	0.42	0.68	1.04	1.28
BB In US Govt/Credit	0.00	100.00	100.00	0.00	N/A	0.62	1.00	1.14

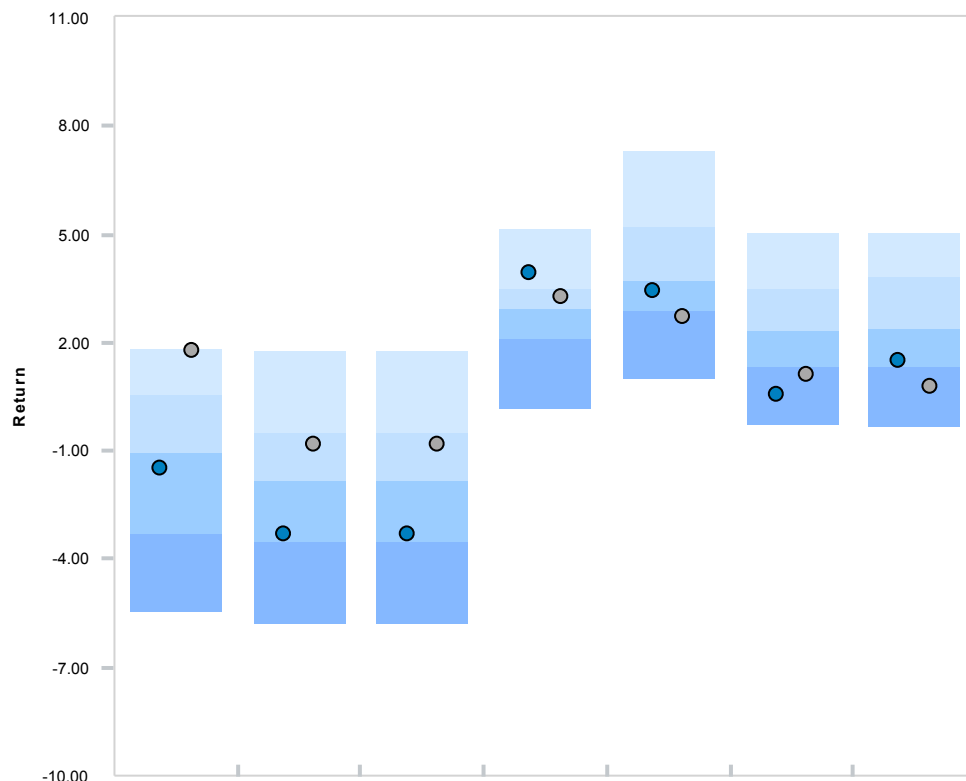


**Gain/Loss Summary**  
**Boyd Watterson Asset MGMT**  
As of December 31, 2018

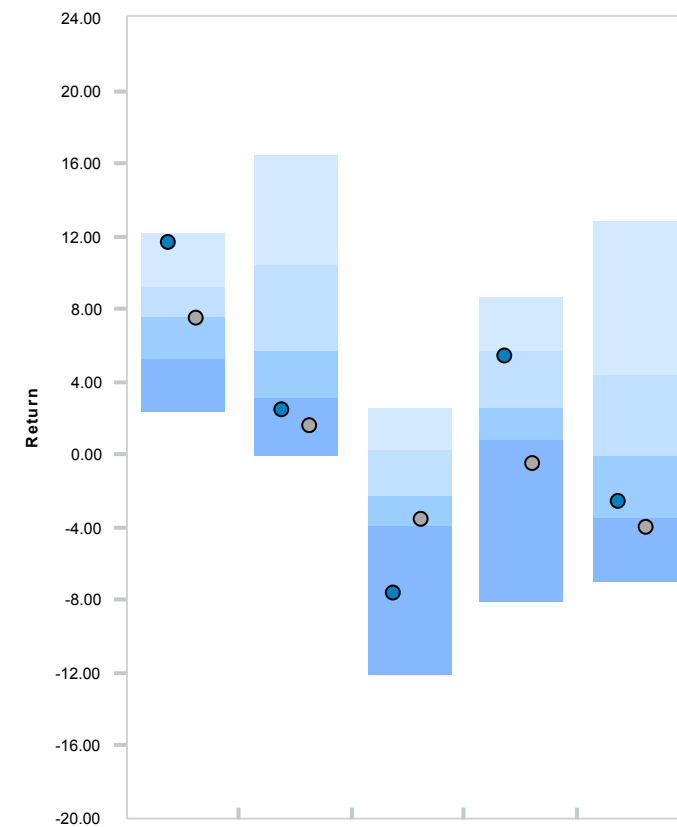
<b>Gain/Loss Summary</b>	<b>QTD</b>	<b>YTD</b>	<b>1 YR</b>	<b>3 YR</b>	<b>5 YR</b>	<b>7 YR</b>	<b>10 YR</b>
Boyd Watterson Asset MGMT							
<b>Beginning Market Value</b>	<b>29,979,082</b>	<b>27,935,534</b>	<b>27,935,534</b>	<b>23,037,527</b>	<b>41,048,155</b>	<b>48,521,990</b>	<b>48,750,266</b>
Net Contributions	-1,150,000	1,062,912	1,062,912	4,464,282	-11,252,357	-20,717,311	-30,197,403
Gain/Loss	9,721	-159,644	-159,644	1,336,993	-956,994	1,034,124	10,285,940
<b>Ending Market Value</b>	<b>28,838,803</b>	<b>28,838,803</b>	<b>28,838,803</b>	<b>28,838,803</b>	<b>28,838,803</b>	<b>28,838,803</b>	<b>28,838,803</b>



Peer Group Analysis - IM Global Fixed Income (SA+CF)



	QTR	FYTD	1 YR	2 YR	3 YR	4 YR	5 YR
● Brandywine Global	-1.50 (58)	-3.29 (74)	-3.29 (74)	3.92 (17)	3.42 (60)	0.54 (92)	1.50 (70)
● CG World Gov Bond	1.75 (6)	-0.84 (34)	-0.84 (34)	3.24 (33)	2.69 (79)	1.09 (83)	0.77 (89)
Median	-1.07	-1.82	-1.82	2.92	3.71	2.30	2.35



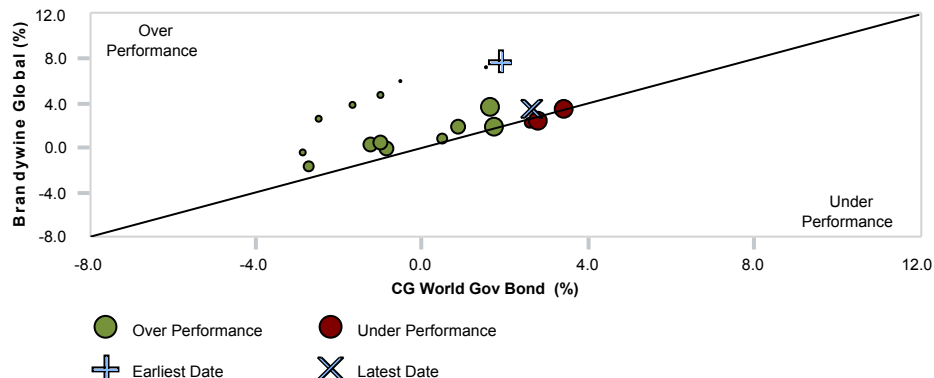
	2017	2016	2015	2014	2013
● Brandywine Global	11.66 (10)	2.43 (81)	-7.62 (91)	5.41 (27)	-2.57 (68)
● CG World Gov Bond	7.49 (52)	1.60 (89)	-3.57 (69)	-0.48 (85)	-4.00 (80)
Median	7.62	5.75	-2.27	2.51	-0.06

Comparative Performance

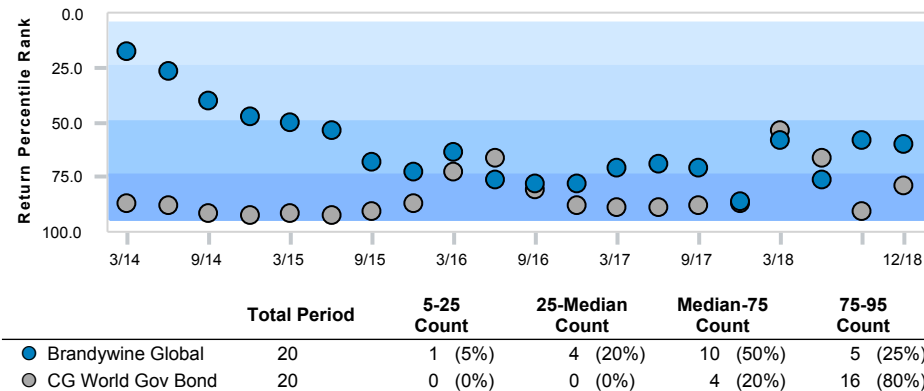
	1 Qtr Ending Sep-2018	1 Qtr Ending Jun-2018	1 Qtr Ending Mar-2018	1 Qtr Ending Dec-2017	1 Qtr Ending Sep-2017	1 Qtr Ending Jun-2017
Brandywine Global	-0.28 (68)	-5.53 (95)	4.22 (2)	-0.22 (93)	2.90 (14)	4.27 (7)
CG World Gov Bond	-1.62 (96)	-3.35 (83)	2.50 (10)	1.04 (41)	1.81 (51)	2.89 (25)
IM Global Fixed Income (SA+CF) Median	0.55	-0.89	0.26	0.90	1.84	2.19



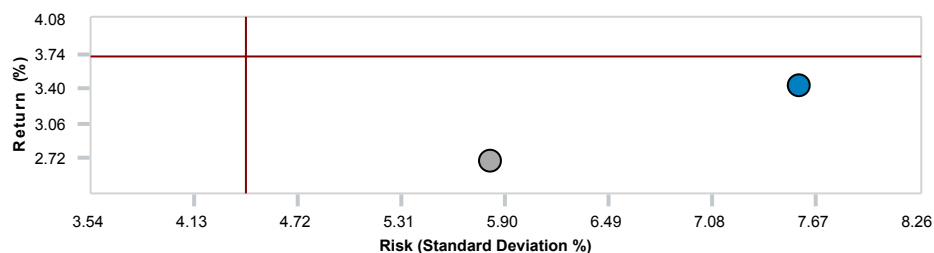
### 3 Yr Rolling Under/Over Performance - 5 Years



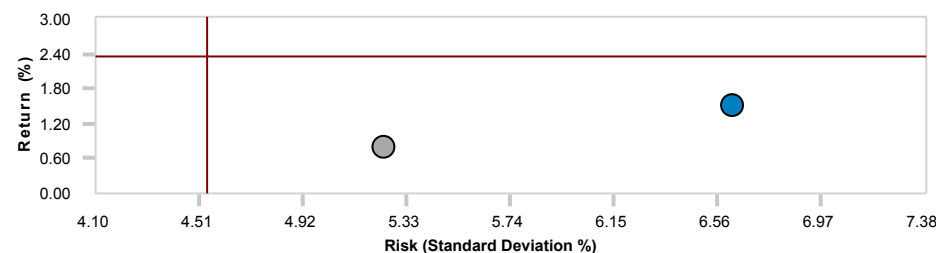
### 3 Yr Rolling Percentile Ranking - 5 Years



### Peer Group Scattergram - 3 Years



### Peer Group Scattergram - 5 Years



### Historical Statistics - 3 Years

	Tracking Error	Up Market Capture	Down Market Capture	Alpha	Information Ratio	Sharpe Ratio	Beta	Downside Risk
Brandywine Global	4.47	118.63	114.11	0.68	0.18	0.35	1.05	5.16
CG World Gov Bond	0.00	100.00	100.00	0.00	N/A	0.32	1.00	3.94

### Historical Statistics - 5 Years

	Tracking Error	Up Market Capture	Down Market Capture	Alpha	Information Ratio	Sharpe Ratio	Beta	Downside Risk
Brandywine Global	4.31	98.63	86.31	0.84	0.19	0.17	0.96	4.56
CG World Gov Bond	0.00	100.00	100.00	0.00	N/A	0.06	1.00	3.79

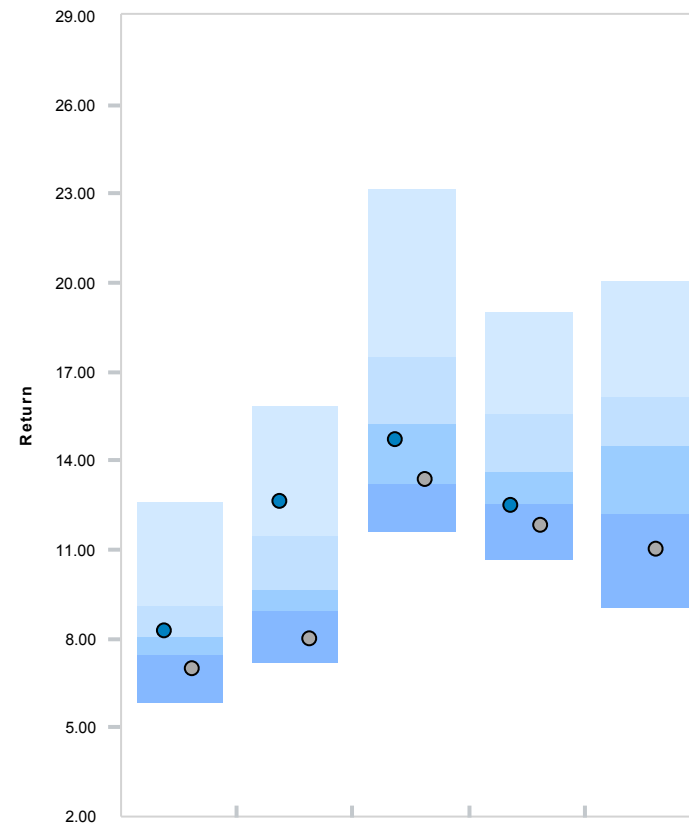
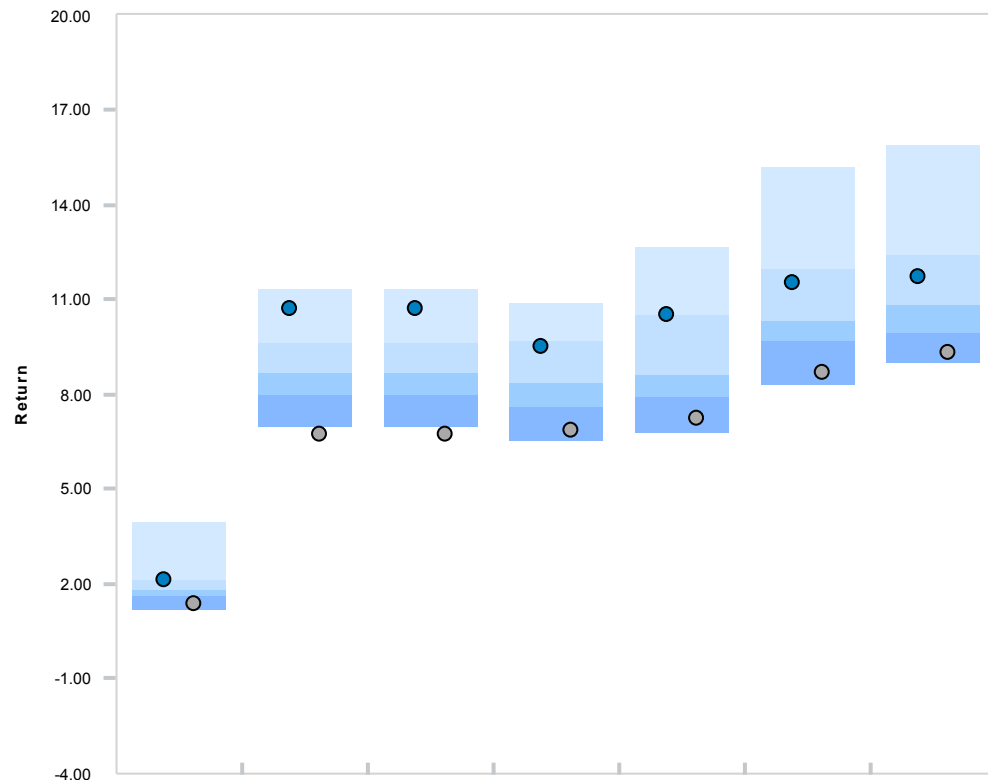


**Gain/Loss Summary**  
**Brandywine Global Fixed**  
As of December 31, 2018

<b>Gain/Loss Summary</b>							
	<b>QTD</b>	<b>YTD</b>	<b>1 YR</b>	<b>3 YR</b>	<b>5 YR</b>	<b>7 YR</b>	<b>10 YR</b>
Brandywine Global Fixed							
<b>Beginning Market Value</b>	<b>5,386,503</b>	<b>5,504,537</b>	<b>5,504,537</b>	<b>11,967,920</b>	<b>25,712,635</b>	<b>23,701,687</b>	<b>19,586,397</b>
Net Contributions	-	-	-	-5,500,001	-19,528,808	-19,527,315	-23,527,429
Gain/Loss	-87,173	-205,207	-205,207	-1,168,588	-884,497	1,124,958	9,240,362
<b>Ending Market Value</b>	<b>5,299,330</b>	<b>5,299,330</b>	<b>5,299,330</b>	<b>5,299,330</b>	<b>5,299,330</b>	<b>5,299,330</b>	<b>5,299,330</b>



Peer Group Analysis - IM U.S. Open End Private Real Estate (SA+CF)



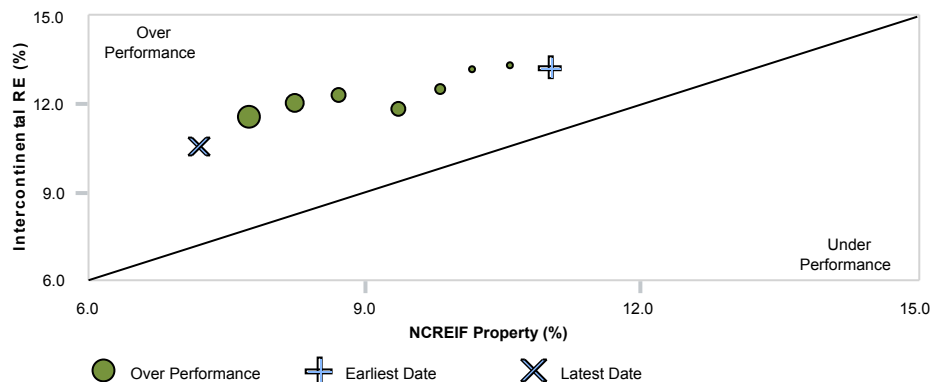
	QTR	FYTD	1 YR	2 YR	3 YR	4 YR	5 YR	2017	2016	2015	2014	2013
● Intercontinental RE	2.14 (25)	10.75 (15)	10.75 (15)	9.50 (28)	10.53 (26)	11.56 (29)	11.74 (34)	8.27 (48)	12.60 (24)	14.71 (56)	12.47 (77)	N/A
○ NCREIF Property	1.37 (92)	6.72 (100)	6.72 (100)	6.84 (89)	7.21 (91)	8.71 (90)	9.33 (93)	6.96 (82)	7.97 (88)	13.33 (75)	11.82 (82)	10.98 (86)
Median	1.80	8.71	8.71	8.39	8.66	10.36	10.82	8.08	9.63	15.23	13.59	14.47

Comparative Performance

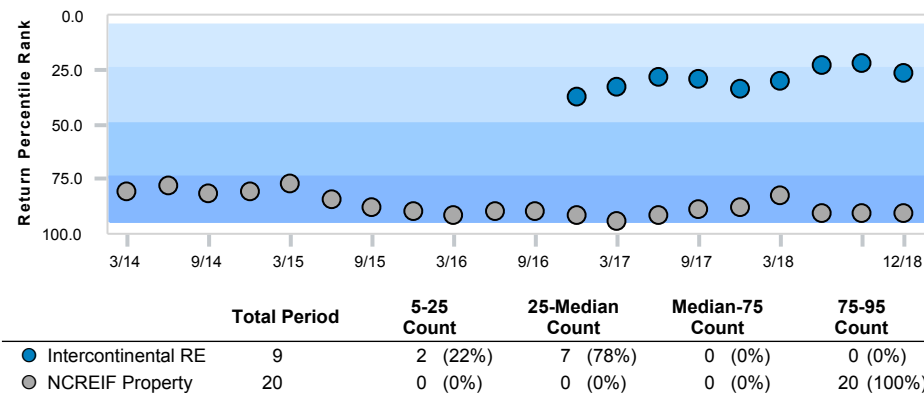
	1 Qtr Ending Sep-2018	1 Qtr Ending Jun-2018	1 Qtr Ending Mar-2018	1 Qtr Ending Dec-2017	1 Qtr Ending Sep-2017	1 Qtr Ending Jun-2017
Intercontinental RE	2.52 (23)	2.89 (27)	2.79 (14)	2.75 (14)	1.68 (59)	1.67 (70)
NCREIF Property	1.67 (81)	1.81 (87)	1.70 (87)	1.80 (81)	1.70 (59)	1.75 (66)
IM U.S. Open End Private Real Estate (SA+CF) Median	2.10	2.22	2.21	2.25	1.75	1.89



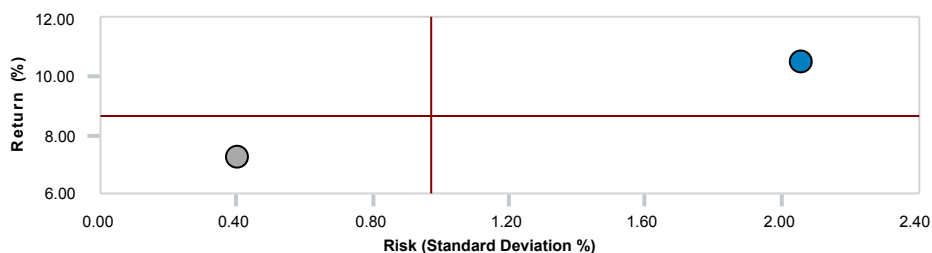
### 3 Yr Rolling Under/Over Performance - 5 Years



### 3 Yr Rolling Percentile Ranking - 5 Years

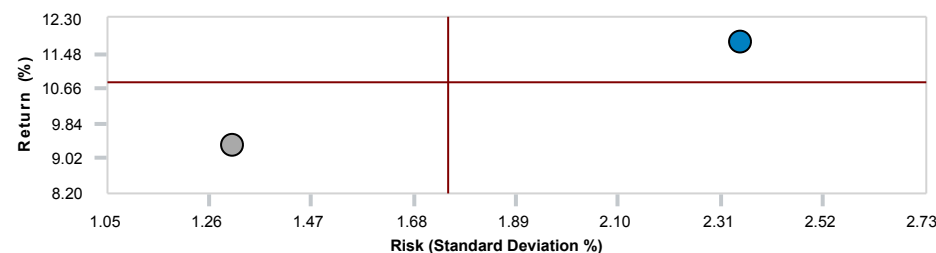


### Peer Group Scattergram - 3 Years



	Return	Standard Deviation
● Intercontinental RE	10.53	2.06
● NCREIF Property	7.21	0.41
— Median	8.66	0.97

### Peer Group Scattergram - 5 Years



	Return	Standard Deviation
● Intercontinental RE	11.74	2.35
● NCREIF Property	9.33	1.31
— Median	10.82	1.75

### Historical Statistics - 3 Years

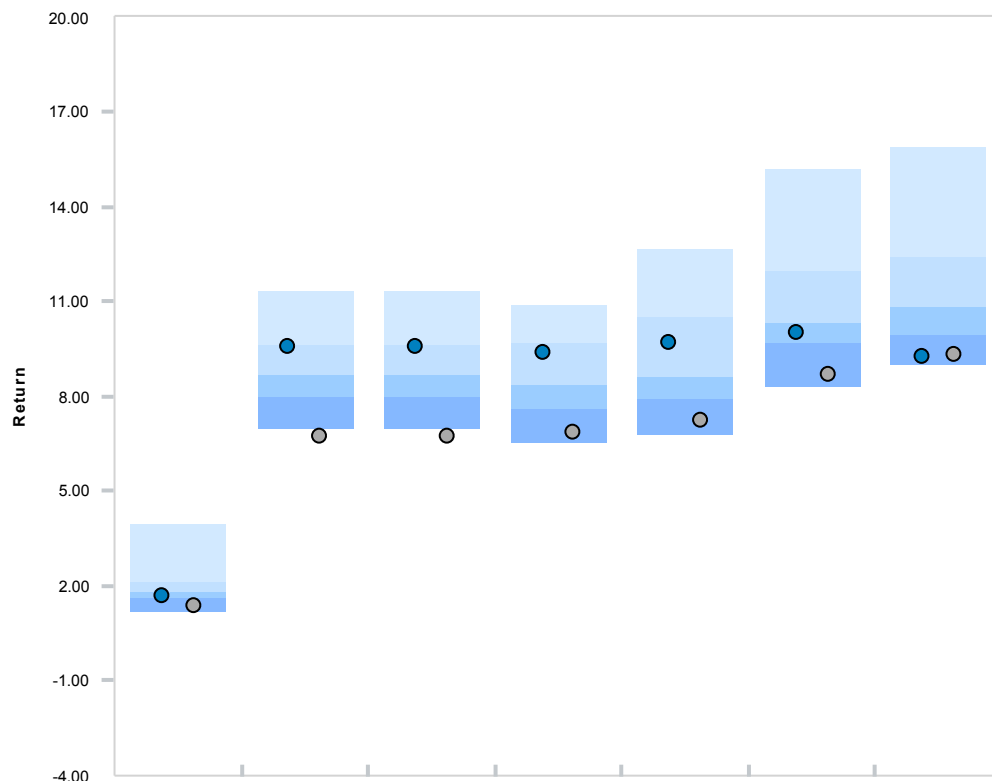
	Tracking Error	Up Market Capture	Down Market Capture	Alpha	Information Ratio	Sharpe Ratio	Beta	Downside Risk
Intercontinental RE	2.18	144.51	N/A	18.26	1.44	4.30	-0.99	0.00
NCREIF Property	0.00	100.00	N/A	0.00	N/A	9.01	1.00	0.00

### Historical Statistics - 5 Years

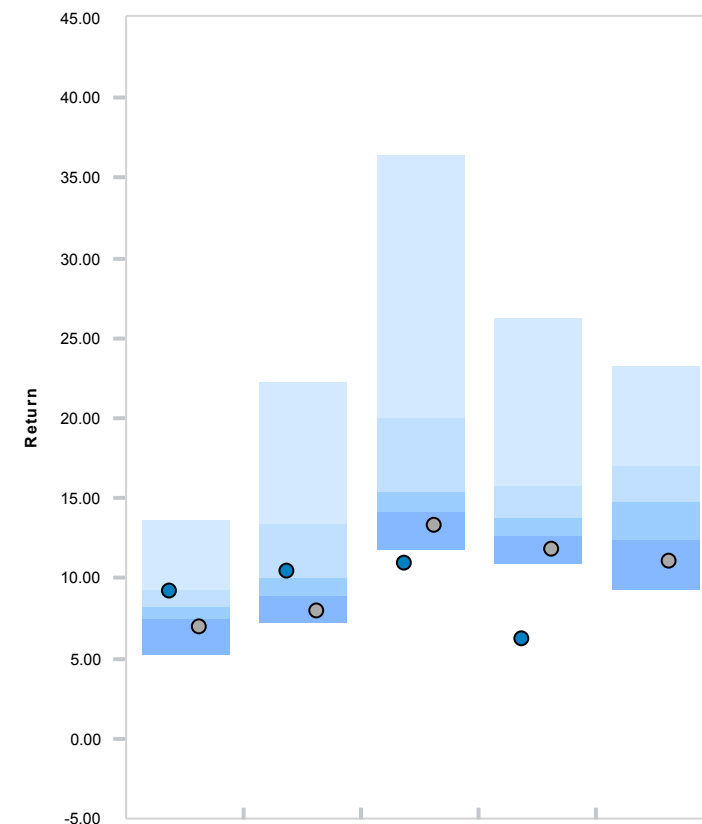
	Tracking Error	Up Market Capture	Down Market Capture	Alpha	Information Ratio	Sharpe Ratio	Beta	Downside Risk
Intercontinental RE	2.45	125.02	N/A	8.31	0.92	4.33	0.36	0.00
NCREIF Property	0.00	100.00	N/A	0.00	N/A	5.32	1.00	0.00



Peer Group Analysis - IM U.S. Private Real Estate (SA+CF)



	QTR	FYTD	1 YR	2 YR	3 YR	4 YR	5 YR
● Titanium GSA	1.68 (72)	9.59 (27)	9.59 (27)	9.38 (30)	9.72 (31)	10.03 (58)	9.26 (93)
● NCREIF Property	1.37 (92)	6.72 (100)	6.72 (100)	6.84 (89)	7.21 (91)	8.71 (90)	9.33 (93)
Median	1.80	8.71	8.71	8.39	8.66	10.36	10.82



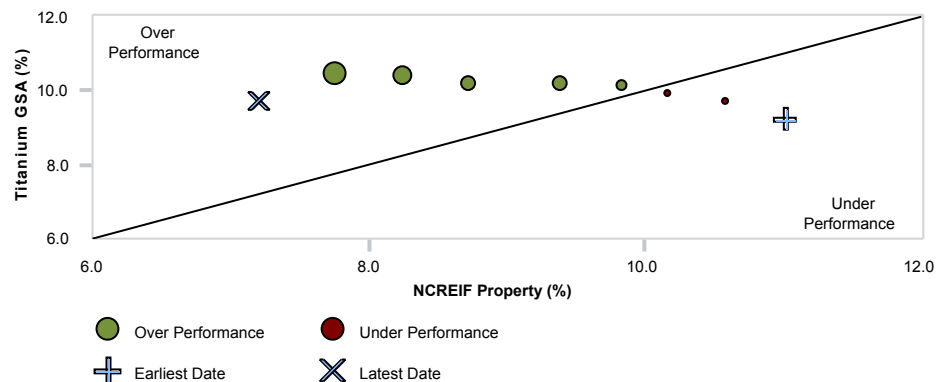
	2017	2016	2015	2014	2013
● Titanium GSA	9.16 (27)	10.40 (47)	10.98 (98)	6.25 (100)	N/A
● NCREIF Property	6.96 (81)	7.97 (89)	13.33 (78)	11.82 (85)	10.98 (88)
Median	8.23	10.05	15.35	13.76	14.83

Comparative Performance

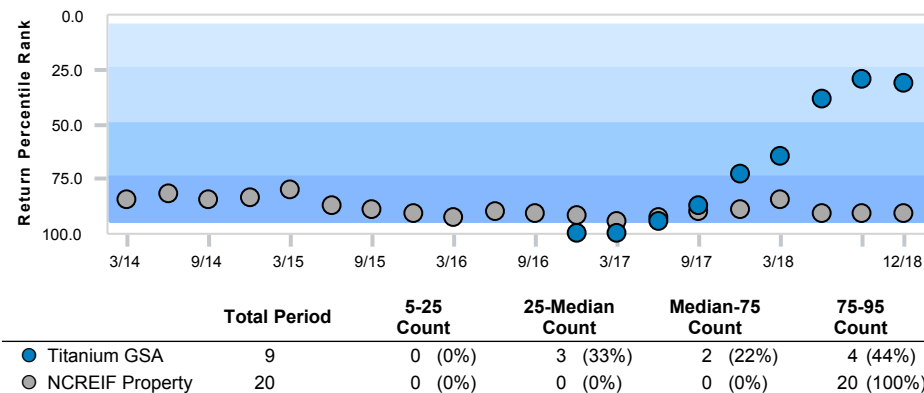
	1 Qtr Ending Sep-2018	1 Qtr Ending Jun-2018	1 Qtr Ending Mar-2018	1 Qtr Ending Dec-2017	1 Qtr Ending Sep-2017	1 Qtr Ending Jun-2017
Titanium GSA	2.58 (19)	2.64 (32)	2.36 (42)	2.33 (43)	2.19 (37)	1.71 (68)
NCREIF Property	1.67 (81)	1.81 (87)	1.70 (85)	1.80 (76)	1.70 (59)	1.75 (67)
IM U.S. Private Real Estate (SA+CF) Median	2.10	2.22	2.22	2.23	1.75	1.91



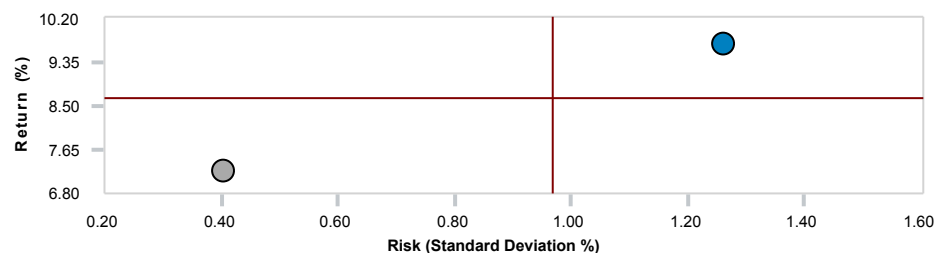
### 3 Yr Rolling Under/Over Performance - 5 Years



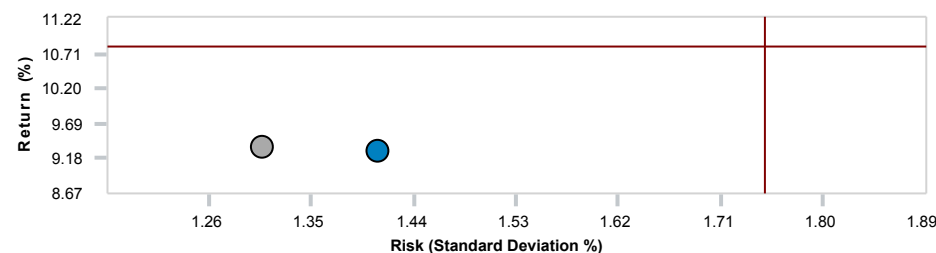
### 3 Yr Rolling Percentile Ranking - 5 Years



### Peer Group Scattergram - 3 Years



### Peer Group Scattergram - 5 Years



### Historical Statistics - 3 Years

	Tracking Error	Up Market Capture	Down Market Capture	Alpha	Information Ratio	Sharpe Ratio	Beta	Downside Risk
Titanium GSA	1.40	133.59	N/A	14.23	1.69	6.16	-0.59	0.00
NCREIF Property	0.00	100.00	N/A	0.00	N/A	9.01	1.00	0.00

### Historical Statistics - 5 Years

	Tracking Error	Up Market Capture	Down Market Capture	Alpha	Information Ratio	Sharpe Ratio	Beta	Downside Risk
Titanium GSA	2.06	99.37	N/A	10.82	-0.03	5.78	-0.16	0.00
NCREIF Property	0.00	100.00	N/A	0.00	N/A	5.32	1.00	0.00



**Gain/Loss Summary**  
**Titanium GSA Fund**  
As of December 31, 2018

<b>Gain/Loss Summary</b>							
	<b>QTD</b>	<b>YTD</b>	<b>1 YR</b>	<b>3 YR</b>	<b>5 YR</b>	<b>7 YR</b>	<b>10 YR</b>
Titanium GSA Fund							
<b>Beginning Market Value</b>	<b>12,059,766</b>	<b>11,295,566</b>	<b>11,295,566</b>	<b>7,685,635</b>	<b>3,500,000</b>	-	-
Net Contributions	-	-	-	-	5,347,750	-	-
Gain/Loss	163,905	928,105	928,105	4,538,036	3,375,921	-	-
<b>Ending Market Value</b>	<b>12,223,671</b>	<b>12,223,671</b>	<b>12,223,671</b>	<b>12,223,671</b>	<b>12,223,671</b>	-	-



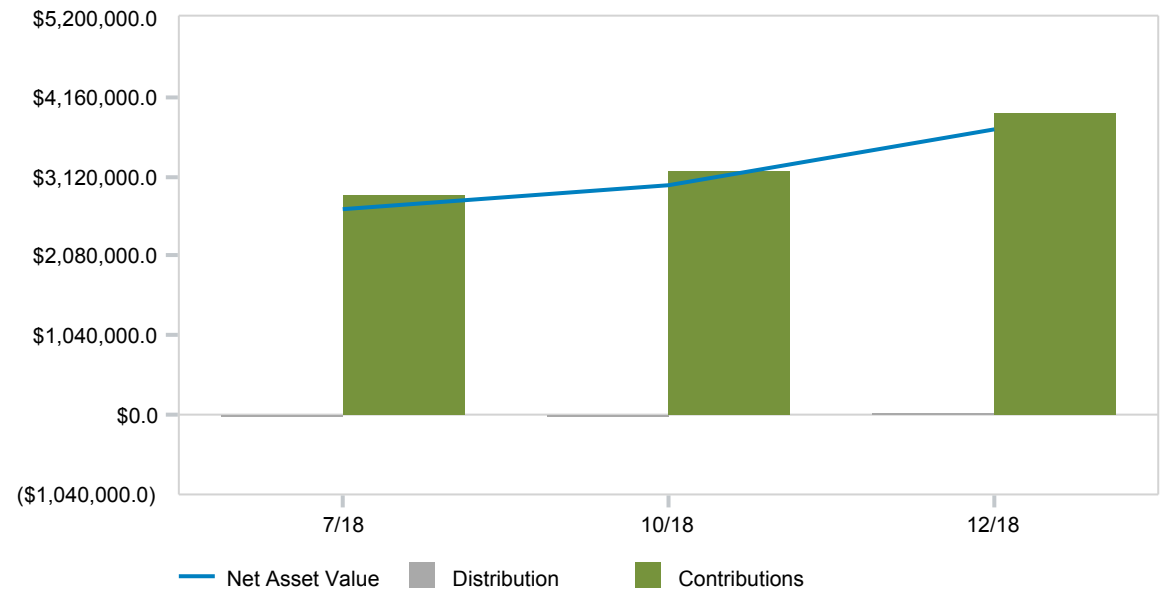
**Fund Information**

<b>Type of Fund:</b>	Direct	<b>Vintage Year:</b>	2017
<b>Strategy Type:</b>	Value-Add Real Estate	<b>Management Fee:</b>	1.5% (20% Carried Interest, 60%/40% GP/LP Catch Up)
<b>Size of Fund:</b>	150,000,000	<b>Preferred Return:</b>	8.0%
<b>Inception:</b>	04/10/2017	<b>General Partner:</b>	
<b>Final Close:</b>	03/31/2017	<b>Number of Funds:</b>	
<b>Investment Strategy:</b> Alidade Capital Fund IV, LP is a multi-strategy, value-add fund seeking attractive risk-adjusted returns by investing both directly and indirectly in commercial real estate located in select secondary markets. Target deal sizes range between \$5 and \$35 million, with a focus on constructing a portfolio with a balance of in-place cash flow and value-add enhancement potential.			

**Cash Flow Summary**

<b>Capital Committed:</b>	\$5,000,000
<b>Capital Invested:</b>	\$3,750,000
<b>Management Fees:</b>	\$69,966
<b>Expenses:</b>	-
<b>Interest:</b>	\$116,860
<b>Total Contributions:</b>	\$3,936,826
<b>Remaining Capital Commitment:</b>	\$1,250,000
<b>Total Distributions:</b>	\$23,450
<b>Market Value:</b>	\$3,742,012
<b>Inception Date:</b>	07/20/2018
<b>Inception IRR:</b>	-5.6
<b>TVPI:</b>	1.0

**Cash Flow Analysis**



**Fund Information**

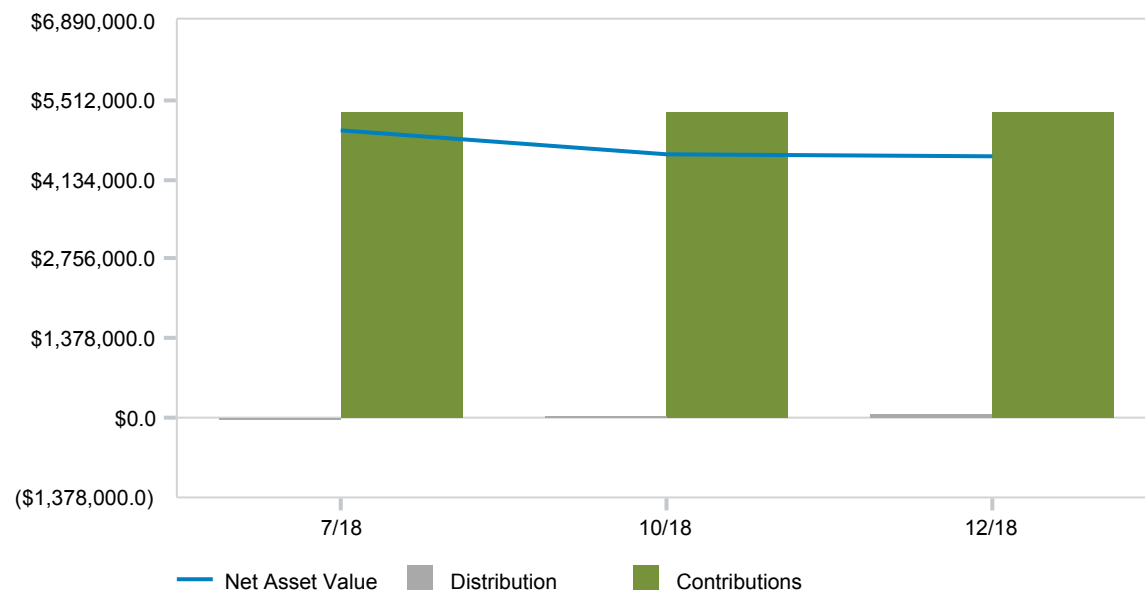
<b>Type of Fund:</b>	Partnership	<b>Vintage Year:</b>	2017
<b>Strategy Type:</b>	Value-Add Real Estate	<b>Management Fee:</b>	1.50%
<b>Size of Fund:</b>	122,107,450	<b>Preferred Return:</b>	8.00% + carried interest 30% to GP, 70% to investor after gross return of 15%
<b>Inception:</b>	11/01/2016	<b>General Partner:</b>	TerraCap GP IV, LLC
<b>Final Close:</b>	4/7/2019	<b>Number of Funds:</b>	

**Investment Strategy:** TerraCap Management, LLC is a commercial real estate investment management company focused on value-add real estate acquisitions in the Southern United States. TerraCap considers thematic factors such as business formation, employment growth and population growth on a market-by-market basis, as most metros and sub-markets have different economic-based industries and therefore move through their economic cycles differently. TerraCap's principals aim to diversify the firm's real estate portfolio across geographies and asset classes, including office, flex, multifamily, and hospitality. The Fund's investment strategy is to make investments in income producing real estate assets for which TerraCap seeks to achieve gross compound annual levered returns on Invested Capital of fifteen percent (15%) to nineteen percent (19%) Net IRRs over rolling three (3) to seven (7) year periods. TerraCap expects to engage in activities that improve income producing assets the Fund plans to acquire, such as completing deferred maintenance, renovations, new signage, tenant improvements, leasing, or repositioning.

**Cash Flow Summary**

<b>Capital Committed:</b>	\$5,000,000
<b>Capital Invested:</b>	\$5,000,000
<b>Management Fees:</b>	-
<b>Expenses:</b>	-
<b>Interest:</b>	\$292,191
<b>Total Contributions:</b>	\$5,292,191
<b>Remaining Capital Commitment:</b>	-
<b>Total Distributions:</b>	\$73,108
<b>Market Value:</b>	\$4,521,562
<b>Inception Date:</b>	07/17/2018
<b>Inception IRR:</b>	-13.3
<b>TVPI:</b>	0.9

**Cash Flow Analysis**



<b>Total Fund Policy</b>	
<b>Allocation Mandate</b>	<b>Weight (%)</b>
<b>Jan-1973</b>	
S&P 500 Index	55.00
Bloomberg Barclays Intermediate US Govt/Credit Idx	40.00
90 Day U.S. Treasury Bill	5.00
<b>Apr-1999</b>	
S&P 500 Index	50.00
Bloomberg Barclays Intermediate US Govt/Credit Idx	45.00
90 Day U.S. Treasury Bill	5.00
<b>Jan-2014</b>	
S&P 500 Index	25.00
Bloomberg Barclays Intermediate US Govt/Credit Idx	22.00
90 Day U.S. Treasury Bill	1.00
Russell 2500 Index	9.00
MSCI EAFE (Net) Index	19.00
MSCI Emerging Markets (Net) Index	5.00
NCREIF Property Index	2.00
HFRI Fund of Funds Composite Index	3.00
FTSE World Government Bond Index	14.00
<b>Oct-2018</b>	
S&P 500 Index	25.50
Russell 2500 Index	14.00
MSCI EAFE (Net) Index	15.00
MSCI Emerging Markets (Net) Index	7.50
Bloomberg Barclays Intermediate US Govt/Credit Idx	14.00
NCREIF Property Index	12.00
HFRI Fund of Funds Composite Index	5.00
FTSE World Government Bond Index	3.00
Alerian MLP Index	3.00
90 Day U.S. Treasury Bill	1.00



Historical market value and performance data through September 2017 was provided by Morgan Stanley.

Market values, performance and cash flow information beginning October 2017 to date was prepared by AndCo from statements provided by Comerica Bank and the investment managers.

Mesirow Financial market value of \$256,553 represents a holdback amount expected to be paid out after the year end audit is completed in June 2018.

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<b>Active Return</b>	- Arithmetic difference between the manager's performance and the designated benchmark return over a specified time period.
<b>Alpha</b>	- 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.
<b>Beta</b>	- A measure of the sensitivity of a portfolio to the movements in the market. It is a measure of the portfolio's systematic risk.
<b>Consistency</b>	- 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.
<b>Distributed to Paid In (DPI)</b>	- 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.
<b>Down Market Capture</b>	- The ratio of average portfolio performance over the designated benchmark during periods of negative returns. A lower value indicates better product performance
<b>Downside Risk</b>	- 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.
<b>Excess Return</b>	- Arithmetic difference between the manager's performance and the risk-free return over a specified time period.
<b>Excess Risk</b>	- A measure of the standard deviation of a portfolio's performance relative to the risk free return.
<b>Information Ratio</b>	- 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.
<b>Public Market Equivalent (PME)</b>	- 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.
<b>R-Squared</b>	- 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.
<b>Return</b>	- Compounded rate of return for the period.
<b>Sharpe Ratio</b>	- 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.
<b>Standard Deviation</b>	- 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.
<b>Total Value to Paid In (TVPI)</b>	- 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
<b>Tracking Error</b>	- This is a measure of the standard deviation of a portfolio's returns in relation to the performance of its designated market benchmark.
<b>Treynor Ratio</b>	- 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.
<b>Up Market Capture</b>	- 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.

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