

Investment Performance Review
Period Ending June 30, 2019

Sunrise Police Retirement Plan



Table Of Contents

1	Compliance Report	Page 1
2	Asset Allocation Compliance Account Based	Page 4
3	Asset Allocation Compliance Segment Based	Page 6
4	Asset Allocation Pie Chart	Page 7
5	Comparative Performance Trailing Returns	Page 9
6	Comparative Performance Calendar Year	Page 12
7	Financial Reconciliation Quarter to Date	Page 16
8	Schedule of Investable Assets With Full Table	Page 17
9	Total Fund Composite Returns Based Analysis	Page 21
10	Historical Risk Statistics Total Equity	Page 26
11	Historical Risk Statistics Total Fixed Income	Page 27
12	Ceredex Returns Based Analysis	Page 29
13	Polen Returns Based Analysis	Page 33
14	Rhumblin R1000G Returns Based Analysis	Page 34
15	Mutual of Americal Returns Based Analysis	Page 35
16	Great Lakes SMID Cap Returns Based Analysis	Page 38
17	Vanguard R2000 (VRTIX) Returns Based Analysis	Page 39
18	Vanguard International Returns Based Analysis	Page 40
19	JPM Intl Returns Based Analysis	Page 44
20	GHA A+ Returns Based Analysis	Page 46
21	GHA EXCL A+ Fixed Inc Returns Based Analysis	Page 50
22	Barings Returns Based Analysis	Page 54
23	ASB Returns Based Analysis	Page 55
24	Benchmark History	Page 56
25	Fee Schedule	Page 58
26	Disclosures	Page 68
27	Definitions & Disclosure Pages	Page 69



Total Fund Compliance:	Yes	No
The total plan return equaled or exceeded the total plan benchmark over the trailing three and five year periods.		•
The three and five year total plan returns rank in the top 40% of the Fund's peers.		•
The total plan return equaled or exceeded the 7.7% target rate of return over the trailing three year period.	•	
The total plan return equaled or exceeded the 7.7% target rate of return over the trailing five year period.		•

Equity Compliance:		
Ceredex Large Cap Value	Yes	No
The return equaled or exceeded its benchmark over the trailing three and five year periods.		•
The three and five year return ranks in the top 40% of its peers.		•
The amount invested in any one issuing company is less than or equal to 5% of the Manager's total fund.	•	
The aggregate investment in any one company is less than or equal to 5% of the outstanding shares of the company.	•	

Polen Capital	Yes	No
The return equaled or exceeded its benchmark over the trailing three and five year periods. **	•	
The three and five year return ranks in the top 40% of its peers. **	•	
The amount invested in any one issuing company is less than or equal to 5% of the Manager's total fund.	•	
The aggregate investment in any one company is less than or equal to 5% of the outstanding shares of the company.	•	

Rhumblin R1000G	Yes	No
The return equaled or exceeded its benchmark over the trailing three and five year periods.**		•
The three and five year return ranks in the top 40% of its peers. **		•
The amount invested in any one issuing company is less than or equal to 5% of the Manager's total fund.	•	
The aggregate investment in any one company is less than or equal to 5% of the outstanding shares of the company.	•	

Mutual of America	Yes	No
The return equaled or exceeded its benchmark over the trailing three and five year periods.		•
The three and five year return ranks in the top 40% of its peers.		•
The amount invested in any one issuing company is less than or equal to 5% of the Manager's total fund.	•	
The aggregate investment in any one company is less than or equal to 5% of the outstanding shares of the company.	•	



Great Lakes SMID Equity	Yes	No
The return equaled or exceeded its benchmark over the trailing three and five year periods. **		•
The three and five year return ranks in the top 40% of its peers. **		•
The amount invested in any one issuing company is less than or equal to 5% of the Manager's total fund.	•	
The aggregate investment in any one company is less than or equal to 5% of the outstanding shares of the company.	•	

Vanguard R2000 Equity	Yes	No
The return equaled or exceeded its benchmark over the trailing three and five year periods. **		•
The three and five year return ranks in the top 40% of its peers. **		•
The amount invested in any one issuing company is less than or equal to 5% of the Manager's total fund.	•	
The aggregate investment in any one company is less than or equal to 5% of the outstanding shares of the company.	•	

Vanguard International Equity	Yes	No
The return equaled or exceeded its benchmark over the trailing three and five year periods. *	•	
The three and five year return ranks in the top 40% of its peers. *		•
The amount invested in any one issuing company is less than or equal to 5% of the Manager's total fund.	•	
The aggregate investment in any one company is less than or equal to 5% of the outstanding shares of the company.	•	

JPM International Equity	Yes	No
The return equaled or exceeded its benchmark over the trailing three and five year periods. **	•	
The three and five year return ranks in the top 40% of its peers. **		•
The amount invested in any one issuing company is less than or equal to 5% of the Manager's total fund.	•	
The aggregate investment in any one company is less than or equal to 5% of the outstanding shares of the company.	•	



Fixed Income Compliance:**GHA Fixed Income BCAB A+**

	Yes	No
The return equaled or exceeded its benchmark over the trailing three and five year periods.	•	
The three and five year return ranks in the top 40% of its peers.		•
The amount invested in any one issuing company is less than or equal to 5% of the Manager's total fund.	•	
Are all the fixed income securities ranked in the top "3" categories by Standard & Poor's or Moody's.	•	

GHA Fixed Income BCIGC

	Yes	No
The return equaled or exceeded its benchmark over the trailing three and five year periods.	•	
The three and five year return ranks in the top 40% of its peers.		•
The amount invested in any one issuing company is less than or equal to 5% of the Manager's total fund.	•	
Are all the fixed income securities ranked in the top "3" categories by Standard & Poor's or Moody's.	•	

Real Estate Compliance:**Barings Real Estate**

	Yes	No
The return equaled or exceeded its benchmark over the trailing three and five year periods.**		•
The three and five year return ranks in the top 40% of its peers.**		•

ASB Real Estate

	Yes	No
The return equaled or exceeded its benchmark over the trailing three and five year periods.**		•
The three and five year return ranks in the top 40% of its peers.**		•

* Only 3 years available

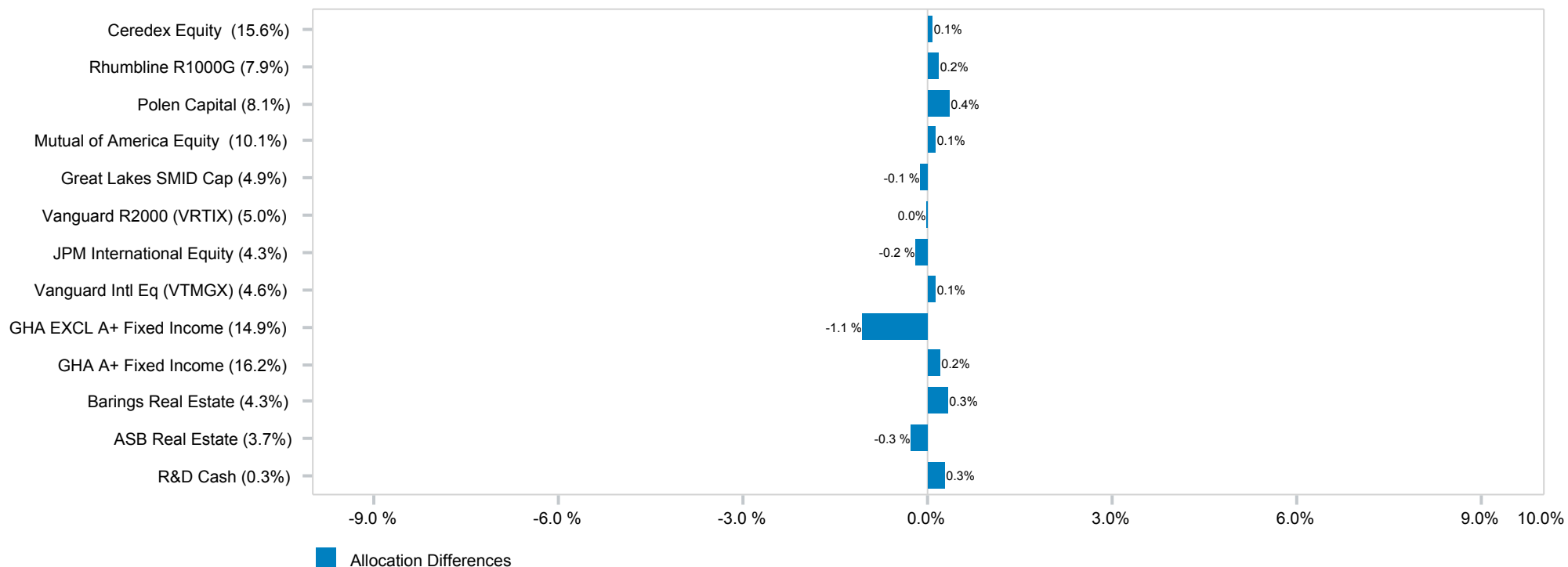
** Since Inception

Net performance used when available



Asset Allocation Compliance

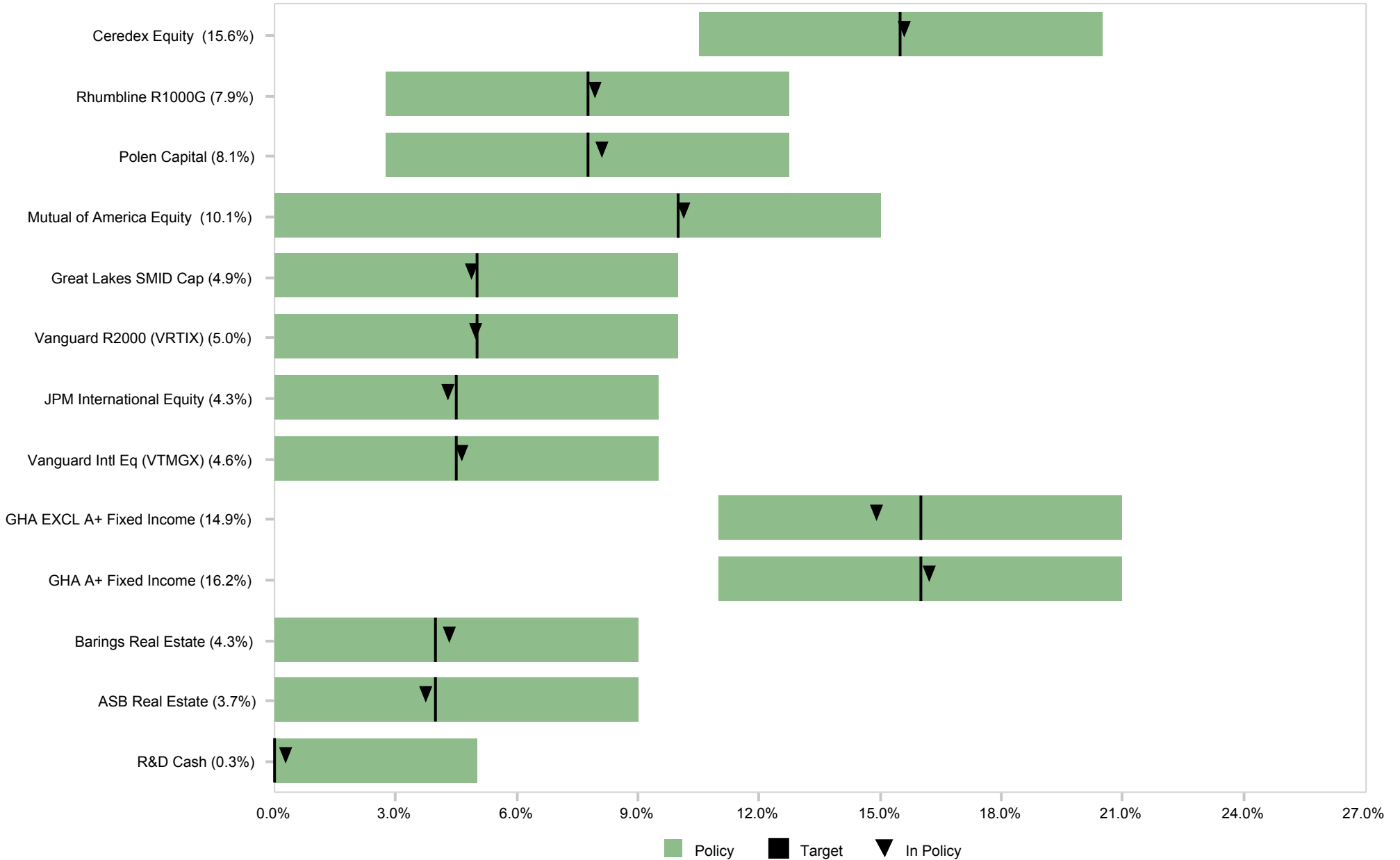
	Asset Allocation \$	Current Allocation (%)	Target Allocation (%)	Differences (%)	Target Rebal. (\$000)
Total Fund Composite	157,673,909	100.0	100.0	0.0	-
Ceredex Equity	24,564,875	15.6	15.5	0.1	-125,419
Rhumblin R1000G	12,518,817	7.9	7.8	0.2	-299,089
Polen Capital	12,791,507	8.1	7.8	0.4	-571,779
Mutual of America Equity	15,984,449	10.1	10.0	0.1	-217,058
Great Lakes SMID Cap	7,690,635	4.9	5.0	-0.1	193,060
Vanguard R2000 (VRTIX)	7,846,879	5.0	5.0	0.0	36,816
JPM International Equity	6,754,393	4.3	4.5	-0.2	340,933
Vanguard Intl Eq (VTMGX)	7,303,182	4.6	4.5	0.1	-207,856
GHA EXCL A+ Fixed Income	23,531,190	14.9	16.0	-1.1	1,696,636
GHA A+ Fixed Income	25,541,850	16.2	16.0	0.2	-314,024
Barings Real Estate	6,836,373	4.3	4.0	0.3	-529,417
ASB Real Estate	5,884,972	3.7	4.0	-0.3	421,985
R&D Cash	424,787	0.3	0.0	0.3	-424,787



■ Allocation Differences

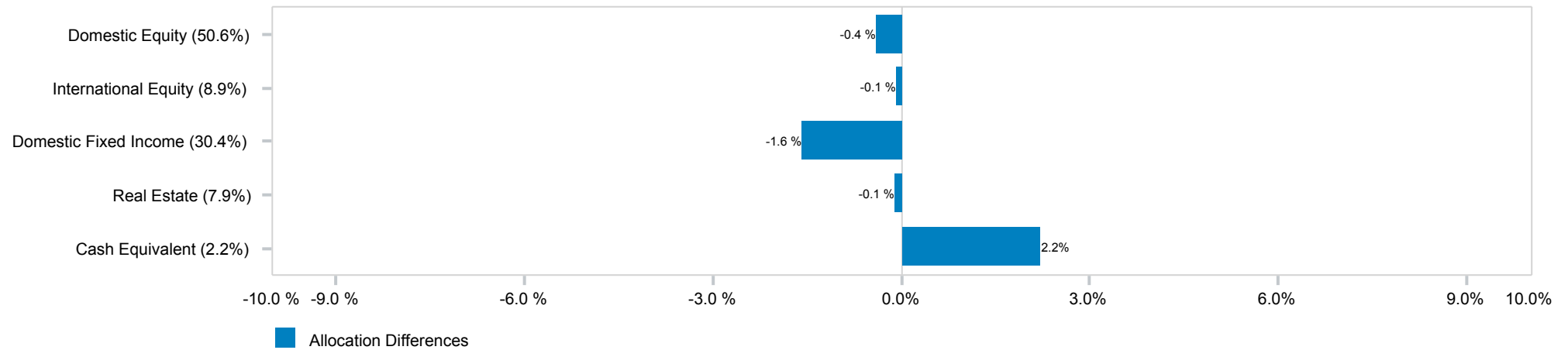


Executive Summary



Asset Allocation Compliance

	Asset Allocation \$	Current Allocation (%)	Target Allocation (%)	Differences (%)	Target Rebal. (\$000)
Domestic Equity	79,769,676	50.6	51.0	-0.4	644,018
International Equity	14,057,575	8.9	9.0	-0.1	133,077
Domestic Fixed Income	47,970,300	30.4	32.0	-1.6	2,485,351
Real Estate	12,421,345	7.9	8.0	-0.1	192,568
Cash Equivalent	3,455,013	2.2	0.0	2.2	-3,455,013
Total Fund	157,673,909	100.0	100.0	0.0	-

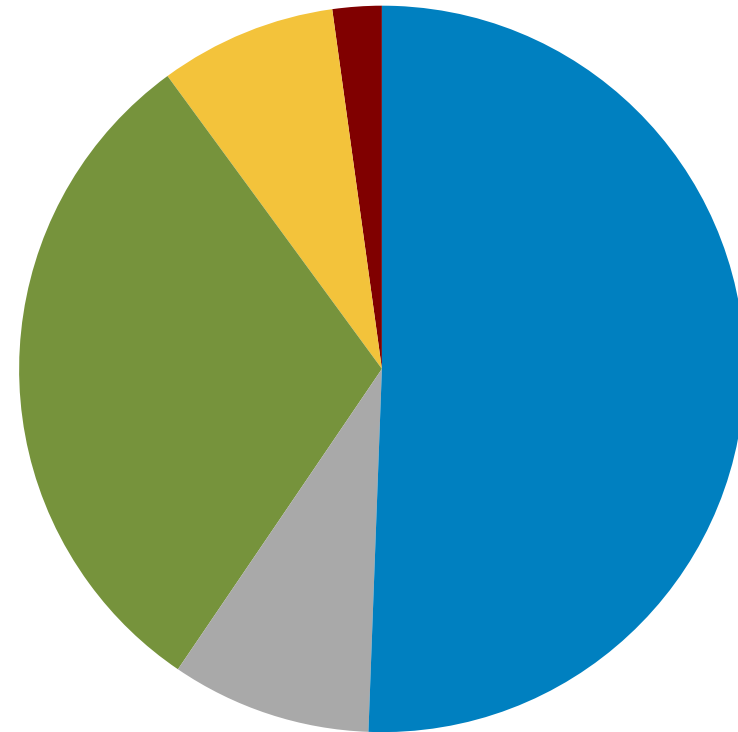
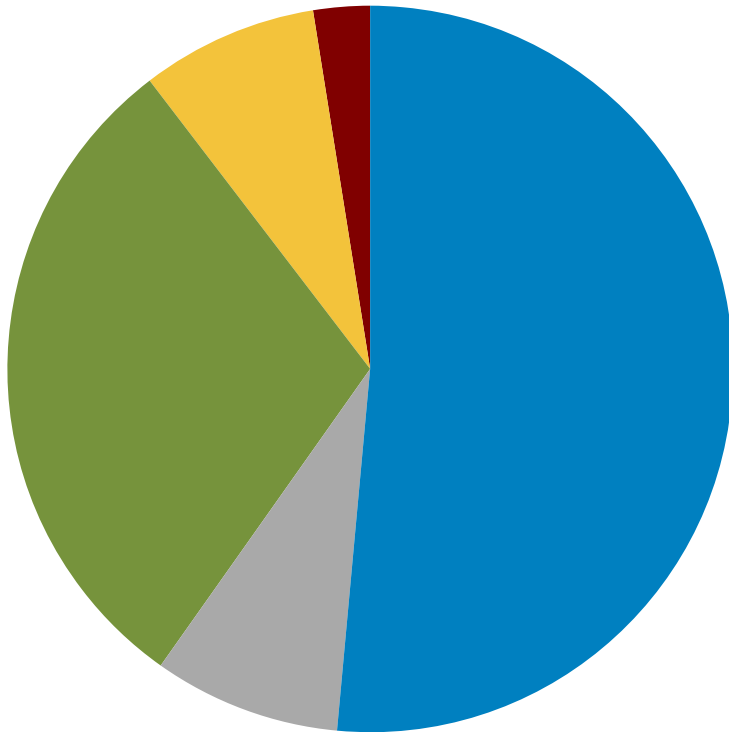


Executive Summary



Asset Allocation By Segment as of
 March 31, 2019 : \$155,472,363

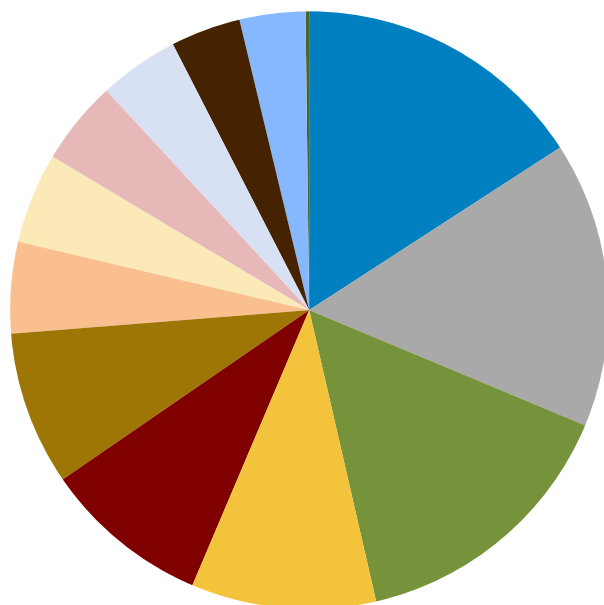
Asset Allocation By Segment as of
 June 30, 2019 : \$157,673,909



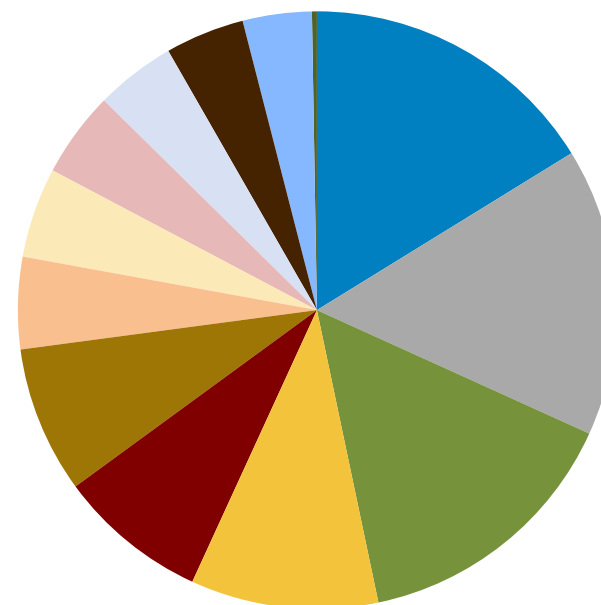
Allocation			Allocation		
Segments	Market Value	Allocation	Segments	Market Value	Allocation
■ Domestic Equity	80,007,823	51.5	■ Domestic Equity	79,769,676	50.6
■ International Equity	12,957,148	8.3	■ International Equity	14,057,575	8.9
■ Domestic Fixed Income	46,331,902	29.8	■ Domestic Fixed Income	47,970,300	30.4
■ Real Estate	12,256,786	7.9	■ Real Estate	12,421,345	7.9
■ Cash Equivalent	3,918,704	2.5	■ Cash Equivalent	3,455,013	2.2



Asset Allocation By Manager as of
 March 31, 2019 : \$155,472,363



Asset Allocation By Manager as of
 June 30, 2019 : \$157,673,909



Allocation			Allocation		
	Market Value	Allocation		Market Value	Allocation
■ GHA A+ Fixed Income	24,628,310	15.8	■ GHA A+ Fixed Income	25,541,850	16.2
■ Ceredex Equity	24,036,562	15.5	■ Ceredex Equity	24,564,875	15.6
■ GHA EXCL A+ Fixed Income	23,485,713	15.1	■ GHA EXCL A+ Fixed Income	23,531,190	14.9
■ Mutual of America Equity	15,517,895	10.0	■ Mutual of America Equity	15,984,449	10.1
■ Polen Capital	14,029,080	9.0	■ Polen Capital	12,791,507	8.1
■ Rhumblin R1000G	12,951,093	8.3	■ Rhumblin R1000G	12,518,817	7.9
■ Vanguard R2000 (VRTIX)	7,683,993	4.9	■ Vanguard R2000 (VRTIX)	7,846,879	5.0
■ Great Lakes SMID Cap	7,621,964	4.9	■ Great Lakes SMID Cap	7,690,635	4.9
■ Vanguard Intl Eq (VTMGX)	7,072,185	4.5	■ Vanguard Intl Eq (VTMGX)	7,303,182	4.6
■ Barings Real Estate	6,731,976	4.3	■ Barings Real Estate	6,836,373	4.3
■ JPM International Equity	5,884,963	3.8	■ JPM International Equity	6,754,393	4.3
■ ASB Real Estate	5,524,810	3.6	■ ASB Real Estate	5,884,972	3.7
■ R&D Cash	303,819	0.2	■ R&D Cash	424,787	0.3



Comparative Performance Trailing Returns

	QTR	YTD	FYTD	1 YR	3 YR	5 YR	Inception	Inception Date
Total Fund Composite (Gross)	3.15 (60)	12.23 (55)	2.65 (71)	6.26 (53)	8.74 (50)	6.18 (33)	6.31 (53)	01/01/1998
Total Fund Policy Index	3.38 (36)	12.84 (38)	3.35 (42)	6.92 (30)	8.76 (49)	6.43 (22)	6.43 (46)	
Difference	-0.23	-0.61	-0.70	-0.66	-0.02	-0.25	-0.12	
All Public Plans-Total Fund Median	3.24	12.34	3.15	6.31	8.71	5.82	6.35	
Total Fund Composite (Net)	3.06	12.05	2.40	5.90	8.37	5.82	5.96	01/01/1998
Total Fund Policy Index	3.38	12.84	3.35	6.92	8.76	6.43	6.43	
Difference	-0.32	-0.79	-0.95	-1.02	-0.39	-0.61	-0.47	
Total Equity Composite (Gross)	3.93	18.33	0.69	6.16	12.78	8.23	6.20	01/01/1998
Total Equity Policy Index	3.79	18.13	0.46	5.97	12.70	8.47	6.99	
Difference	0.14	0.20	0.23	0.19	0.08	-0.24	-0.79	
Total Domestic Equity								
Ceredex Equity (Gross)	4.08 (45)	16.38 (41)	0.94 (47)	7.65 (37)	10.79 (62)	7.58 (55)	12.72 (51)	01/01/2012
Russell 1000 Value Index	3.84 (51)	16.24 (43)	2.61 (27)	8.46 (31)	10.19 (71)	7.46 (58)	12.48 (60)	
Difference	0.24	0.14	-1.67	-0.81	0.60	0.12	0.24	
IM U.S. Large Cap Value Equity (SA+CF) Median	3.89	15.79	0.63	6.45	11.42	7.79	12.75	
Ceredex Equity (Net)	3.94	16.07	0.53	7.07	10.19	6.99	12.10	01/01/2012
Russell 1000 Value Index	3.84	16.24	2.61	8.46	10.19	7.46	12.48	
Difference	0.10	-0.17	-2.08	-1.39	0.00	-0.47	-0.38	
Polen Capital (Gross)	6.10 (28)	24.24 (29)	8.67 (12)	20.13 (4)	N/A	N/A	22.24 (5)	01/01/2018
Russell 1000 Growth Index	4.64 (63)	21.49 (54)	2.19 (68)	11.56 (57)	18.07 (45)	13.39 (43)	12.70 (59)	
Difference	1.46	2.75	6.48	8.57	N/A	N/A	9.54	
IM U.S. Large Cap Growth Equity (SA+CF) Median	5.30	21.76	3.99	12.28	17.75	12.90	13.50	
Polen Capital (Net)	5.94	23.88	8.17	19.40	N/A	N/A	21.61	01/01/2018
Russell 1000 Growth Index	4.64	21.49	2.19	11.56	18.07	13.39	12.70	
Difference	1.30	2.39	5.98	7.84	N/A	N/A	8.91	
Rhumblin R1000G (Gross)	4.65 (63)	21.47 (54)	2.19 (68)	11.55 (57)	N/A	N/A	12.70 (59)	01/01/2018
Russell 1000 Growth Index	4.64 (63)	21.49 (54)	2.19 (68)	11.56 (57)	18.07 (45)	13.39 (43)	12.70 (59)	
Difference	0.01	-0.02	0.00	-0.01	N/A	N/A	0.00	
IM U.S. Large Cap Growth Equity (SA+CF) Median	5.30	21.76	3.99	12.28	17.75	12.90	13.50	
Rhumblin R1000G (Net)	4.63	21.44	2.15	11.49	N/A	N/A	12.66	01/01/2018
Russell 1000 Growth Index	4.64	21.49	2.19	11.56	18.07	13.39	12.70	
Difference	-0.01	-0.05	-0.04	-0.07	N/A	N/A	-0.04	

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



Comparative Performance
Total Fund
As of June 30, 2019

	QTR	YTD	FYTD	1 YR	3 YR	5 YR	Inception	Inception Date
Mutual of America Equity (Gross)	3.04 (75)	17.93 (69)	-2.40 (74)	1.36 (72)	10.85 (57)	7.98 (48)	10.07 (25)	04/01/2008
S&P MidCap 400 Index	3.05 (75)	17.97 (69)	-2.41 (74)	1.36 (72)	10.90 (57)	8.02 (48)	10.18 (24)	
Difference	-0.01	-0.04	0.01	0.00	-0.05	-0.04	-0.11	
IM U.S. Mid Cap Equity (MF) Median	4.56	20.78	1.50	6.26	12.16	7.78	9.03	
Mutual of America Equity (Net)	3.02	17.91	-2.44	1.30	10.78	7.91	9.99	04/01/2008
S&P MidCap 400 Index	3.05	17.97	-2.41	1.36	10.90	8.02	10.18	
Difference	-0.03	-0.06	-0.03	-0.06	-0.12	-0.11	-0.19	
Great Lakes SMID Cap (Gross)	1.06 (98)	13.83 (99)	-6.15 (87)	N/A	N/A	N/A	-7.58 (87)	09/01/2018
Russell 2500 Index	2.96 (79)	19.25 (58)	-2.80 (68)	1.77 (68)	12.34 (63)	7.66 (86)	-4.27 (69)	
Difference	-1.90	-5.42	-3.35	N/A	N/A	N/A	-3.31	
IM U.S. SMID Cap Core Equity (SA+CF) Median	4.37	19.57	-1.82	2.80	12.49	8.92	-3.40	
Great Lakes SMID Cap (Net)	0.92	13.52	-6.45	N/A	N/A	N/A	-7.88	09/01/2018
Russell 2500 Index	2.96	19.25	-2.80	1.77	12.34	7.66	-4.27	
Difference	-2.04	-5.73	-3.65	N/A	N/A	N/A	-3.61	
Vanguard R2000 (VRTIX) (Net)	2.12 (30)	17.02 (21)	-6.59 (22)	N/A	N/A	N/A	-8.83 (21)	09/01/2018
Russell 2000 Index	2.10 (30)	16.98 (21)	-6.65 (22)	-3.31 (15)	12.30 (12)	7.06 (39)	-8.89 (21)	
Difference	0.02	0.04	0.06	N/A	N/A	N/A	0.06	
IM U.S. Small Cap Core Equity (MF) Median	1.67	13.47	-9.22	-6.11	10.05	6.35	-11.95	
Total International Equity								
Vanguard Intl Eq (VTMGX) (Net)	3.27 (38)	13.76 (47)	-1.10 (63)	-0.02 (48)	8.85 (44)	2.52 (44)	5.76 (32)	07/01/2013
MSCI EAFE Index	3.97 (25)	14.49 (39)	0.18 (52)	1.60 (32)	9.65 (31)	2.74 (38)	6.02 (28)	
Difference	-0.70	-0.73	-1.28	-1.62	-0.80	-0.22	-0.26	
IM International Equity (MF) Median	2.58	13.47	0.31	-0.27	8.44	2.22	4.96	
JPM International Equity (Net)	5.79 (10)	20.14 (10)	8.42 (7)	6.15 (11)	10.34 (44)	N/A	8.79 (51)	10/01/2015
MSCI EAFE Index	3.97 (27)	14.49 (43)	0.18 (54)	1.60 (40)	9.65 (53)	2.74 (65)	7.79 (64)	
Difference	1.82	5.65	8.24	4.55	0.69	N/A	1.00	
IM International Equity (SA+CF) Median	2.58	13.54	0.58	0.48	9.85	3.61	8.80	

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



Comparative Performance
Total Fund
As of June 30, 2019

	QTR	YTD	FYTD	1 YR	3 YR	5 YR	Inception	Inception Date
Total Fixed Income Composite	2.05	4.17	5.62	5.72	2.24	3.03	5.58	01/01/1998
Total Fixed Income Policy Index	2.70	5.17	7.11	7.13	1.97	2.57	4.39	
Difference	-0.65	-1.00	-1.49	-1.41	0.27	0.46	1.19	
GHA A+ Fixed Income (Gross)	2.15 (97)	4.44 (99)	5.88 (98)	5.84 (98)	2.31 (87)	3.26 (55)	5.57 (4)	01/01/2007
Blmbg. Barc. U.S. Aggregate: A+	2.81 (94)	5.37 (94)	7.51 (88)	7.32 (94)	1.94 (100)	2.75 (97)	4.01 (97)	
Difference	-0.66	-0.93	-1.63	-1.48	0.37	0.51	1.56	
IM U.S. Broad Market Core Fixed Income (SA+CF) Median	3.14	6.44	7.93	8.12	2.80	3.29	4.74	
GHA A+ Fixed Income (Net)	2.08	4.32	5.68	5.58	2.06	3.00	5.31	01/01/2007
Blmbg. Barc. U.S. Aggregate: A+	2.81	5.37	7.51	7.32	1.94	2.75	4.01	
Difference	-0.73	-1.05	-1.83	-1.74	0.12	0.25	1.30	
GHA EXCL A+ Fixed Income (Gross)	1.94 (92)	3.88 (93)	5.36 (88)	5.61 (92)	2.16 (68)	2.78 (32)	5.34 (8)	01/01/1998
Bloomberg Barclays Intermediate US Govt/Credit Idx	2.59 (30)	4.97 (55)	6.70 (30)	6.93 (45)	1.99 (92)	2.39 (85)	4.49 (90)	
Difference	-0.65	-1.09	-1.34	-1.32	0.17	0.39	0.85	
IM U.S. Intermediate Duration (SA+CF) Median	2.51	5.01	6.48	6.87	2.31	2.63	4.80	
GHA EXCL A+ Fixed Income (Net)	1.88	3.75	5.18	5.36	2.03	2.71	5.32	01/01/1998
Bloomberg Barclays Intermediate US Govt/Credit Idx	2.59	4.97	6.70	6.93	1.99	2.39	4.49	
Difference	-0.71	-1.22	-1.52	-1.57	0.04	0.32	0.83	
Total Real Estate (Gross)	1.61 (18)	3.69 (36)	5.29 (40)	7.15 (74)	N/A	N/A	7.16 (N/A)	06/01/2017
NCREIF Fund Index-Open End Diversified Core (EW)	1.35 (70)	3.06 (74)	4.73 (85)	6.91 (81)	7.88 (72)	10.03 (48)	8.32 (N/A)	
Difference	0.26	0.63	0.56	0.24	N/A	N/A	-1.16	
IM U.S. Open End Private Real Estate (SA+CF) Median	1.48	3.46	5.18	7.59	8.14	9.91	N/A	
Barings Real Estate (Gross)	1.79 (9)	3.91 (29)	5.59 (30)	7.27 (70)	N/A	N/A	7.85 (68)	07/01/2017
NCREIF Fund Index-Open End Diversified Core (EW)	1.35 (70)	3.06 (74)	4.73 (85)	6.91 (81)	7.88 (72)	10.03 (48)	7.76 (71)	
Difference	0.44	0.85	0.86	0.36	N/A	N/A	0.09	
IM U.S. Open End Private Real Estate (SA+CF) Median	1.48	3.46	5.18	7.59	8.14	9.91	8.15	
Barings Real Estate (Net)	1.55	3.41	4.84	6.22	N/A	N/A	6.74	07/01/2017
NCREIF Fund Index-Open End Diversified Core (EW)	1.35	3.06	4.73	6.91	7.88	10.03	7.76	
Difference	0.20	0.35	0.11	-0.69	N/A	N/A	-1.02	
ASB Real Estate (Gross)	1.39 (67)	3.43 (52)	4.93 (82)	6.99 (79)	N/A	N/A	7.00 (80)	07/01/2017
NCREIF Fund Index-Open End Diversified Core (EW)	1.35 (70)	3.06 (74)	4.73 (85)	6.91 (81)	7.88 (72)	10.03 (48)	7.76 (71)	
Difference	0.04	0.37	0.20	0.08	N/A	N/A	-0.76	
IM U.S. Open End Private Real Estate (SA+CF) Median	1.48	3.46	5.18	7.59	8.14	9.91	8.15	
ASB Real Estate (Net)	1.08	2.80	3.97	5.69	N/A	N/A	5.68	07/01/2017
NCREIF Fund Index-Open End Diversified Core (EW)	1.35	3.06	4.73	6.91	7.88	10.03	7.76	
Difference	-0.27	-0.26	-0.76	-1.22	N/A	N/A	-2.08	

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



Comparative Performance Fiscal Year to Date

	FYTD	Oct-2017 To Sep-2018	Oct-2016 To Sep-2017	Oct-2015 To Sep-2016	Oct-2014 To Sep-2015	Oct-2013 To Sep-2014	Oct-2012 To Sep-2013	Oct-2011 To Sep-2012	Oct-2010 To Sep-2011
Total Fund Composite (Gross)	2.65 (71)	8.38 (39)	11.66 (48)	9.56 (44)	0.60 (20)	9.19 (59)	13.87 (16)	18.40 (27)	1.31 (16)
Total Fund Policy Index	3.35 (42)	9.00 (29)	10.90 (70)	10.01 (28)	0.59 (20)	9.47 (52)	13.44 (21)	18.12 (35)	1.19 (18)
Difference	-0.70	-0.62	0.76	-0.45	0.01	-0.28	0.43	0.28	0.12
All Public Plans-Total Fund Median	3.15	7.86	11.61	9.30	-0.63	9.52	11.72	17.46	-0.33
Total Fund Composite (Net)	2.40	8.01	11.28	9.25	0.22	8.71	13.36	17.84	0.85
Total Fund Policy Index	3.35	9.00	10.90	10.01	0.59	9.47	13.44	18.12	1.19
Difference	-0.95	-0.99	0.38	-0.76	-0.37	-0.76	-0.08	-0.28	-0.34
Total Equity Composite (Gross)	0.69	13.02	19.33	13.45	-1.15	12.14	23.86	25.54	-0.21
Total Equity Policy Index	0.46	14.65	18.53	13.79	-1.26	13.94	24.01	27.57	-1.42
Difference	0.23	-1.63	0.80	-0.34	0.11	-1.80	-0.15	-2.03	1.21
Total Domestic Equity									
Ceredex Equity (Gross)	0.94 (47)	10.74 (62)	17.71 (54)	16.57 (23)	-5.35 (71)	17.16 (66)	26.65 (25)	N/A	N/A
Russell 1000 Value Index	2.61 (27)	9.45 (77)	15.12 (75)	16.19 (26)	-4.42 (64)	18.89 (43)	22.30 (60)	30.92 (26)	-1.89 (62)
Difference	-1.67	1.29	2.59	0.38	-0.93	-1.73	4.35	N/A	N/A
IM U.S. Large Cap Value Equity (SA+CF) Median	0.63	11.72	17.89	13.22	-3.29	18.40	23.76	28.16	-0.98
Ceredex Equity (Net)	0.53	10.15	17.06	15.91	-5.89	16.50	25.93	N/A	N/A
Russell 1000 Value Index	2.61	9.45	15.12	16.19	-4.42	18.89	22.30	30.92	-1.89
Difference	-2.08	0.70	1.94	-0.28	-1.47	-2.39	3.63	N/A	N/A
GHA LCG (Gross)	N/A	N/A	21.48 (42)	13.71 (24)	1.52 (72)	17.32 (60)	12.80 (99)	27.88 (49)	3.11 (36)
Russell 1000 Growth Index	2.19 (68)	26.30 (37)	21.94 (37)	13.76 (23)	3.17 (55)	19.15 (40)	19.27 (63)	29.19 (39)	3.78 (30)
Difference	N/A	N/A	-0.46	-0.05	-1.65	-1.83	-6.47	-1.31	-0.67
IM U.S. Large Cap Growth Equity (SA+CF) Median	3.99	24.44	20.81	11.69	3.60	18.19	20.25	27.65	1.38
Polen Capital (Gross)	8.67 (12)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Russell 1000 Growth Index	2.19 (68)	26.30 (37)	21.94 (37)	13.76 (23)	3.17 (55)	19.15 (40)	19.27 (63)	29.19 (39)	3.78 (30)
Difference	6.48	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
IM U.S. Large Cap Growth Equity (SA+CF) Median	3.99	24.44	20.81	11.69	3.60	18.19	20.25	27.65	1.38
Polen Capital (Net)	8.17 (15)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Russell 1000 Growth Index	2.19 (68)	26.30 (37)	21.94 (37)	13.76 (23)	3.17 (55)	19.15 (40)	19.27 (63)	29.19 (39)	3.78 (30)
Difference	5.98	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
IM U.S. Large Cap Growth Equity (SA+CF) Median	3.99	24.44	20.81	11.69	3.60	18.19	20.25	27.65	1.38

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



Comparative Performance

Total Fund

As of June 30, 2019

	FYTD	Oct-2017 To Sep-2018	Oct-2016 To Sep-2017	Oct-2015 To Sep-2016	Oct-2014 To Sep-2015	Oct-2013 To Sep-2014	Oct-2012 To Sep-2013	Oct-2011 To Sep-2012	Oct-2010 To Sep-2011
Rhumblin R1000G (Gross)	2.19 (68)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Russell 1000 Growth Index	2.19 (68)	26.30 (37)	21.94 (37)	13.76 (23)	3.17 (55)	19.15 (40)	19.27 (63)	29.19 (39)	3.78 (30)
Difference	0.00	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
IM U.S. Large Cap Growth Equity (SA+CF) Median	3.99	24.44	20.81	11.69	3.60	18.19	20.25	27.65	1.38
Rhumblin R1000G (Net)	2.15	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Russell 1000 Growth Index	2.19	26.30	21.94	13.76	3.17	19.15	19.27	29.19	3.78
Difference	-0.04	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Mutual of America Equity (Gross)	-2.40 (74)	14.25 (46)	17.31 (41)	15.25 (15)	1.41 (36)	11.52 (52)	27.64 (42)	28.61 (27)	-1.27 (39)
S&P MidCap 400 Index	-2.41 (74)	14.21 (47)	17.52 (39)	15.33 (15)	1.40 (36)	11.82 (50)	27.68 (42)	28.54 (27)	-1.28 (39)
Difference	0.01	0.04	-0.21	-0.08	0.01	-0.30	-0.04	0.07	0.01
IM U.S. Mid Cap Equity (MF) Median	1.50	13.44	16.49	10.55	-0.31	11.67	27.10	25.56	-2.56
Mutual of America Equity (Net)	-2.44	14.15	17.23	15.17	1.35	11.48	27.55	28.54	-1.32
S&P MidCap 400 Index	-2.41	14.21	17.52	15.33	1.40	11.82	27.68	28.54	-1.28
Difference	-0.03	-0.06	-0.29	-0.16	-0.05	-0.34	-0.13	0.00	-0.04
New Amsterdam Equity (Gross)	N/A	N/A	20.56 (51)	8.62 (94)	N/A	N/A	N/A	N/A	N/A
Russell 2500 Index	-2.80 (21)	16.19 (13)	17.79 (77)	14.44 (61)	0.38 (55)	8.97 (31)	29.79 (64)	30.93 (52)	-2.22 (43)
Difference	N/A	N/A	2.77	-5.82	N/A	N/A	N/A	N/A	N/A
IM U.S. Small Cap Value Equity (SA+CF) Median	-6.49	9.10	20.59	15.69	0.79	6.96	30.97	31.11	-2.83
New Amsterdam Equity (Net)	N/A	N/A	19.99	8.11	N/A	N/A	N/A	N/A	N/A
Russell 2500 Index	-2.80	16.19	17.79	14.44	0.38	8.97	29.79	30.93	-2.22
Difference	N/A	N/A	2.20	-6.33	N/A	N/A	N/A	N/A	N/A
Great Lakes SMID Cap (Gross)	-6.15 (87)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Russell 2500 Index	-2.80 (68)	16.19 (57)	17.79 (71)	14.44 (35)	0.38 (74)	8.97 (72)	29.79 (58)	30.93 (41)	-2.22 (71)
Difference	-3.35	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
IM U.S. SMID Cap Core Equity (SA+CF) Median	-1.82	16.28	18.86	12.61	2.28	11.29	30.27	30.24	-0.86
Great Lakes SMID Cap (Net)	-6.45	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Russell 2500 Index	-2.80	16.19	17.79	14.44	0.38	8.97	29.79	30.93	-2.22
Difference	-3.65	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Vanguard R2000 (VRTIX) (Net)	-6.59 (22)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Russell 2000 Index	-6.65 (22)	15.24 (27)	20.74 (34)	15.47 (36)	1.25 (43)	3.93 (64)	30.06 (44)	31.91 (27)	-3.53 (46)
Difference	0.06	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
IM U.S. Small Cap Core Equity (MF) Median	-9.22	11.73	19.78	14.04	0.31	4.78	29.14	29.11	-4.03

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



Comparative Performance

Total Fund

As of June 30, 2019

	FYTD	Oct-2017 To Sep-2018	Oct-2016 To Sep-2017	Oct-2015 To Sep-2016	Oct-2014 To Sep-2015	Oct-2013 To Sep-2014	Oct-2012 To Sep-2013	Oct-2011 To Sep-2012	Oct-2010 To Sep-2011
Total International Equity									
Vanguard Intl Eq (VTMGX) (Net)	-1.10 (63)	2.78 (24)	19.25 (52)	8.03 (59)	-7.90 (45)	4.01 (54)	N/A	N/A	N/A
MSCI EAFE Index	0.18 (52)	3.25 (21)	19.65 (48)	7.06 (65)	-8.27 (47)	4.70 (44)	24.29 (19)	14.33 (66)	-8.94 (24)
Difference	-1.28	-0.47	-0.40	0.97	0.37	-0.69	N/A	N/A	N/A
IM International Equity (MF) Median	0.31	0.08	19.36	9.33	-8.76	4.27	17.81	16.20	-12.09
JPM International Equity (Net)	8.42 (7)	-3.43 (85)	18.60 (70)	10.45 (56)	N/A	N/A	N/A	N/A	N/A
MSCI EAFE Index	0.18 (54)	3.25 (33)	19.65 (61)	7.06 (77)	-8.27 (50)	4.70 (63)	24.29 (32)	14.33 (72)	-8.94 (44)
Difference	8.24	-6.68	-1.05	3.39	N/A	N/A	N/A	N/A	N/A
IM International Equity (SA+CF) Median	0.58	1.39	21.01	11.49	-8.38	5.80	20.15	17.31	-9.61

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



Comparative Performance

Total Fund

As of June 30, 2019

	FYTD	Oct-2017 To Sep-2018	Oct-2016 To Sep-2017	Oct-2015 To Sep-2016	Oct-2014 To Sep-2015	Oct-2013 To Sep-2014	Oct-2012 To Sep-2013	Oct-2011 To Sep-2012	Oct-2010 To Sep-2011
Total Fixed Income Composite (Gross)	5.62	0.58	0.36	4.79	3.51	5.32	0.01	10.47	3.21
Total Fixed Income Policy Index	7.11	-1.12	-0.09	4.01	3.06	2.79	-1.09	4.40	4.35
Difference	-1.49	1.70	0.45	0.78	0.45	2.53	1.10	6.07	-1.14
GHA A+ Fixed Income (Gross)	5.88 (98)	0.74 (4)	0.23 (71)	5.53 (62)	3.53 (12)	5.87 (12)	-0.17 (14)	10.68 (3)	4.02 (92)
Blmbg. Barc. U.S. Aggregate: A+	7.51 (88)	-1.28 (95)	-0.42 (100)	4.50 (96)	3.44 (17)	3.39 (96)	-1.68 (80)	4.40 (98)	5.30 (47)
Difference	-1.63	2.02	0.65	1.03	0.09	2.48	1.51	6.28	-1.28
IM U.S. Broad Market Core Fixed Income (SA+CF) Median	7.93	-0.74	0.62	5.67	3.02	4.51	-1.22	6.62	5.26
GHA A+ Fixed Income (Net)	5.68	0.48	-0.02	5.27	3.27	5.62	-0.43	10.42	3.77
Blmbg. Barc. U.S. Aggregate: A+	7.51	-1.28	-0.42	4.50	3.44	3.39	-1.68	4.40	5.30
Difference	-1.83	1.76	0.40	0.77	-0.17	2.23	1.25	6.02	-1.53
GHA EXCL A+ Fixed Income (Gross)	5.36 (88)	0.42 (13)	0.52 (67)	4.03 (42)	3.45 (7)	4.56 (11)	0.18 (26)	9.98 (3)	2.13 (96)
Bloomberg Barclays Intermediate US Govt/Credit Idx	6.70 (30)	-0.96 (97)	0.23 (88)	3.52 (77)	2.68 (52)	2.20 (85)	-0.50 (66)	4.40 (81)	3.40 (62)
Difference	-1.34	1.38	0.29	0.51	0.77	2.36	0.68	5.58	-1.27
IM U.S. Intermediate Duration (SA+CF) Median	6.48	-0.38	0.69	3.90	2.70	2.88	-0.27	5.56	3.61
GHA EXCL A+ Fixed Income (Net)	5.18	0.22	0.52	4.03	3.45	4.56	0.18	9.98	2.13
Bloomberg Barclays Intermediate US Govt/Credit Idx	6.70	-0.96	0.23	3.52	2.68	2.20	-0.50	4.40	3.40
Difference	-1.52	1.18	0.29	0.51	0.77	2.36	0.68	5.58	-1.27
Total Real Estate (Gross)	5.29 (40)	7.85 (79)	N/A	N/A	N/A	N/A	N/A	N/A	N/A
NCREIF Fund Index-Open End Diversified Core (EW)	4.73 (85)	8.82 (59)	7.81 (60)	10.62 (69)	14.71 (62)	12.39 (68)	12.47 (67)	11.77 (63)	18.03 (44)
Difference	0.56	-0.97	N/A	N/A	N/A	N/A	N/A	N/A	N/A
IM U.S. Open End Private Real Estate (SA+CF) Median	5.18	9.04	8.29	11.32	15.45	12.78	13.18	12.87	16.96
Barings Real Estate (Gross)	5.59 (30)	7.51 (92)	N/A	N/A	N/A	N/A	N/A	N/A	N/A
NCREIF Fund Index-Open End Diversified Core (EW)	4.73 (85)	8.82 (59)	7.81 (60)	10.62 (69)	14.71 (62)	12.39 (68)	12.47 (67)	11.77 (63)	18.03 (44)
Difference	0.86	-1.31	N/A	N/A	N/A	N/A	N/A	N/A	N/A
IM U.S. Open End Private Real Estate (SA+CF) Median	5.18	9.04	8.29	11.32	15.45	12.78	13.18	12.87	16.96
Barings Real Estate (Net)	4.84	6.36	N/A	N/A	N/A	N/A	N/A	N/A	N/A
NCREIF Fund Index-Open End Diversified Core (EW)	4.73	8.82	7.81	10.62	14.71	12.39	12.47	11.77	18.03
Difference	0.11	-2.46	N/A	N/A	N/A	N/A	N/A	N/A	N/A
ASB Real Estate (Gross)	4.93 (82)	8.26 (70)	N/A	N/A	N/A	N/A	N/A	N/A	N/A
NCREIF Fund Index-Open End Diversified Core (EW)	4.73 (85)	8.82 (59)	7.81 (60)	10.62 (69)	14.71 (62)	12.39 (68)	12.47 (67)	11.77 (63)	18.03 (44)
Difference	0.20	-0.56	N/A	N/A	N/A	N/A	N/A	N/A	N/A
IM U.S. Open End Private Real Estate (SA+CF) Median	5.18	9.04	8.29	11.32	15.45	12.78	13.18	12.87	16.96
ASB Real Estate (Net)	3.97	6.92	N/A	N/A	N/A	N/A	N/A	N/A	N/A
NCREIF Fund Index-Open End Diversified Core (EW)	4.73	8.82	7.81	10.62	14.71	12.39	12.47	11.77	18.03
Difference	-0.76	-1.90	N/A	N/A	N/A	N/A	N/A	N/A	N/A

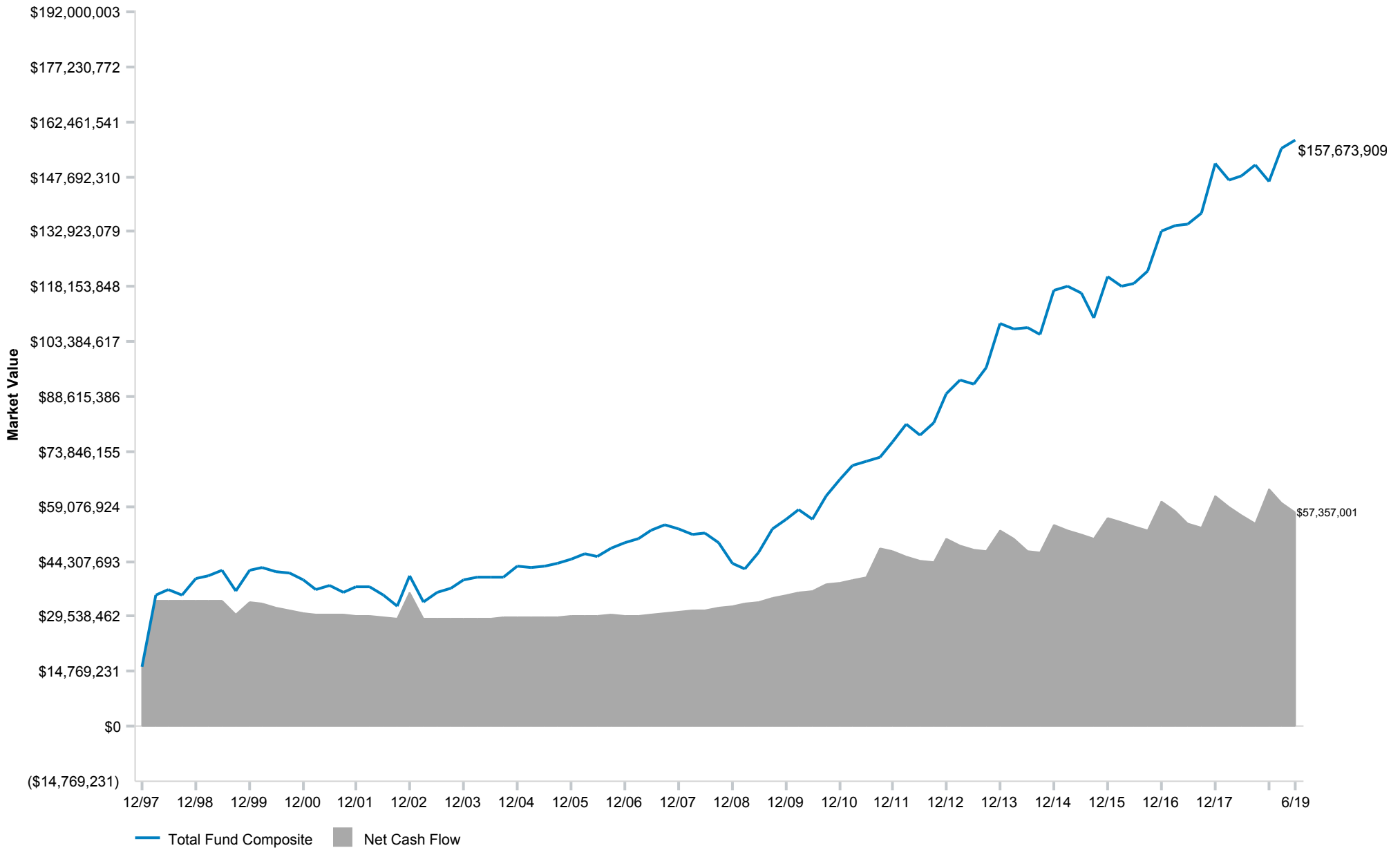
Returns for periods greater than one year are annualized. Returns are expressed as percentages.



Financial Reconciliation Quarter to Date					
	Market Value 04/01/2019	Apprec./ Deprec.	Income	Management Fees	Market Value 06/30/2019
Ceredex Equity	24,036,562	827,001	144,132	-32,535	24,564,875
Polen Capital	14,029,080	749,104	36,128	-20,754	12,791,507
Rhumblin R1000G	12,951,093	567,824	-	-1,574	12,518,817
Mutual of America Equity	15,517,895	401,748	69,914	-2,839	15,984,449
Great Lakes SMID Cap	7,621,964	49,257	30,865	-10,336	7,690,635
Vanguard R2000 (VRTIX)	7,683,993	134,562	28,324	-	7,846,879
Vanguard Intl Eq (VTMGX)	7,072,185	153,322	77,675	-	7,303,182
JPM International Equity	5,884,963	369,430	-	-	6,754,393
GHA A+ Fixed Income	24,628,310	321,407	211,227	-15,379	25,541,850
GHA EXCL A+ Fixed Income	23,485,713	278,070	179,518	-14,668	23,531,190
Barings Real Estate	6,731,976	66,520	54,287	-16,409	6,836,373
ASB Real Estate	5,524,810	28,339	48,953	-17,130	5,884,972
R&D Cash	303,819	-	2,515	-	424,787
Total Fund Composite	155,472,363	3,946,585	883,538	-131,625	157,673,909



Schedule of Investable Assets



Schedule of Investable Assets
Total Fund
Since Inception Ending June 30, 2019

Schedule of Investable Assets

Periods Ending	Beginning Market Value \$	Contributions \$	Withdrawals \$	Net Cash Flow \$	Gain/Loss \$	Ending Market Value \$	%Return
Dec-1997	-	-	-	-	-	15,998,300	N/A
Mar-1998	15,998,300	17,675,917	-	17,675,917	1,591,809	35,266,026	9.95
Jun-1998	35,266,026	237,384	-	237,384	1,275,793	36,779,203	3.61
Sep-1998	36,779,203	-	34,946	-34,946	-1,362,667	35,381,590	-3.71
Dec-1998	35,381,590	-	84,404	-84,404	4,428,727	39,725,913	12.53
Mar-1999	39,725,913	45,809	-	45,809	571,996	40,343,718	1.44
Jun-1999	40,343,718	-	83,881	-83,881	1,732,162	41,991,999	4.30
Sep-1999	41,991,999	-	3,513,461	-3,513,461	-1,997,343	36,481,195	-4.88
Dec-1999	36,481,195	3,141,344	-	3,141,344	2,286,800	41,909,339	6.31
Mar-2000	41,909,339	-	531,269	-531,269	1,445,328	42,823,398	3.47
Jun-2000	42,823,398	-	986,106	-986,106	-362,829	41,474,463	-0.86
Sep-2000	41,474,463	-	690,560	-690,560	215,472	40,999,375	0.52
Dec-2000	40,999,375	-	577,326	-577,326	-951,616	39,470,433	-2.34
Mar-2001	39,470,433	-	393,550	-393,550	-2,158,027	36,918,856	-5.50
Jun-2001	36,918,856	-	225,319	-225,319	1,167,090	37,860,627	3.17
Sep-2001	37,860,627	40,297	-	40,297	-2,075,500	35,825,424	-5.47
Dec-2001	35,825,424	-	184,219	-184,219	1,729,006	37,370,211	4.84
Mar-2002	37,370,211	-	223,926	-223,926	278,998	37,425,283	0.75
Jun-2002	37,425,283	-	348,391	-348,391	-1,937,612	35,139,280	-5.21
Sep-2002	35,139,280	-	221,225	-221,225	-2,602,605	32,315,450	-7.44
Dec-2002	32,315,450	6,836,371	-	6,836,371	1,438,642	40,590,463	4.41
Mar-2003	40,590,463	-	6,795,099	-6,795,099	-410,557	33,384,807	-1.17
Jun-2003	33,384,807	-	197,693	-197,693	2,866,553	36,053,667	8.62
Sep-2003	36,053,667	252,293	-	252,293	741,955	37,047,915	2.05
Dec-2003	37,047,915	-	21,113	-21,113	2,460,444	39,487,246	6.67
Mar-2004	39,487,246	-	134,073	-134,073	822,971	40,176,144	2.09
Jun-2004	40,176,144	1,194	-	1,194	3,493	40,180,831	-0.01
Sep-2004	40,180,831	397,660	-	397,660	-339,911	40,238,580	-0.85
Dec-2004	40,238,580	54,577	-	54,577	2,802,548	43,095,705	6.96
Mar-2005	43,095,705	-	186,709	-186,709	-417,831	42,491,165	-0.98
Jun-2005	42,491,165	-	34,346	-34,346	731,050	43,187,869	1.72
Sep-2005	43,187,869	-	43,678	-43,678	503,689	43,647,880	1.17
Dec-2005	43,647,880	423,649	-	423,649	950,170	45,021,699	2.19
Mar-2006	45,021,699	51,421	-	51,421	1,403,105	46,476,225	3.11
Jun-2006	46,476,225	-	83,590	-83,590	-718,538	45,674,097	-1.55
Sep-2006	45,674,097	586,713	-	586,713	1,503,788	47,764,598	3.27
Dec-2006	47,764,598	-	322,499	-322,499	1,978,220	49,420,319	4.19
Mar-2007	49,420,319	45,644	-	45,644	895,483	50,361,446	1.82
Jun-2007	50,361,446	243,909	-	243,909	1,901,240	52,506,595	3.78
Sep-2007	52,506,595	400,316	-	400,316	1,166,875	54,073,786	2.20



Schedule of Investable Assets
Total Fund
Since Inception Ending June 30, 2019

Periods Ending	Beginning Market Value \$	Contributions \$	Withdrawals \$	Net Cash Flow \$	Gain/Loss \$	Ending Market Value \$	%Return
Dec-2007	54,073,786	190,416	-	190,416	-1,264,986	52,999,216	-2.33
Mar-2008	52,999,216	475,161	-	475,161	-1,773,644	51,700,733	-3.33
Jun-2008	51,700,733	157,090	-	157,090	19,456	51,877,279	0.06
Sep-2008	51,877,279	729,736	-	729,736	-3,090,400	49,516,615	-5.88
Dec-2008	49,516,615	272,688	-	272,688	-5,953,060	43,836,243	-12.10
Mar-2009	43,836,243	645,560	-	645,560	-2,154,563	42,327,240	-4.63
Jun-2009	42,327,240	466,248	-	466,248	4,028,207	46,821,695	9.51
Sep-2009	46,821,695	1,231,187	-	1,231,187	4,915,363	52,968,245	10.42
Dec-2009	52,968,245	728,073	-	728,073	2,085,980	55,782,298	3.90
Mar-2010	55,782,298	530,170	-	530,170	2,014,347	58,326,815	3.60
Jun-2010	58,326,815	495,784	-	495,784	-3,139,138	55,683,461	-5.38
Sep-2010	55,683,461	1,660,776	-	1,660,776	4,453,702	61,797,939	7.87
Dec-2010	61,797,939	651,202	-	651,202	4,073,218	66,522,359	6.59
Mar-2011	66,522,359	634,816	-	634,816	2,936,677	70,093,852	4.43
Jun-2011	70,093,852	665,257	-	665,257	532,225	71,291,334	0.76
Sep-2011	71,291,334	7,862,053	-	7,862,053	-6,957,257	72,196,130	-9.67
Dec-2011	72,196,130	-	654,876	-654,876	4,773,351	76,314,605	6.63
Mar-2012	76,314,605	-	1,466,628	-1,466,628	6,525,345	81,373,322	8.63
Jun-2012	81,373,322	-	1,210,329	-1,210,329	-1,962,942	78,200,051	-2.42
Sep-2012	78,200,051	-	328,909	-328,909	3,699,212	81,570,354	4.75
Dec-2012	81,570,354	6,149,365	-	6,149,365	1,463,069	89,182,788	1.61
Mar-2013	89,182,788	-	1,674,077	-1,674,077	5,563,247	93,071,958	6.29
Jun-2013	93,071,958	-	1,198,519	-1,198,519	117,987	91,991,426	0.15
Sep-2013	91,991,426	-	302,113	-302,113	4,852,470	96,541,783	5.28
Dec-2013	96,541,783	5,486,468	-	5,486,468	6,283,251	108,311,502	6.10
Mar-2014	108,311,502	-	2,359,425	-2,359,425	918,503	106,870,580	0.88
Jun-2014	106,870,580	-	3,191,614	-3,191,614	3,629,450	107,308,416	3.49
Sep-2014	107,308,416	-	452,620	-452,620	-1,543,346	105,312,450	-1.43
Dec-2014	105,312,450	7,621,833	-	7,621,833	4,031,767	116,966,050	3.57
Mar-2015	116,966,050	-	1,512,343	-1,512,343	2,856,300	118,310,007	2.46
Jun-2015	118,310,007	-	1,332,712	-1,332,712	-581,700	116,395,595	-0.50
Sep-2015	116,395,595	-	1,099,361	-1,099,361	-5,449,028	109,847,206	-4.72
Dec-2015	109,847,206	8,251,060	2,762,661	5,488,399	5,689,897	121,025,502	2.58
Mar-2016	121,025,502	7,589,316	8,599,372	-1,010,056	-1,803,617	118,211,829	1.44
Jun-2016	118,211,829	1,424,212	2,565,534	-1,141,322	2,049,990	119,120,498	1.74
Sep-2016	119,120,498	3,743,647	4,750,720	-1,007,073	4,157,724	122,271,148	3.49
Dec-2016	122,271,148	20,010,869	12,411,919	7,598,951	3,172,123	133,042,222	2.44
Mar-2017	133,042,222	3,994,591	6,390,328	-2,395,737	4,004,829	134,651,313	3.04
Jun-2017	134,651,313	12,268,921	15,569,852	-3,300,931	3,602,838	134,953,220	2.71
Sep-2017	134,953,220	15,754,188	16,964,685	-1,210,497	4,039,130	137,781,854	3.00
Dec-2017	137,781,854	34,723,496	26,093,106	8,630,390	4,656,414	151,068,658	3.17



Schedule of Investable Assets
Total Fund
Since Inception Ending June 30, 2019

Periods Ending	Beginning Market Value \$	Contributions \$	Withdrawals \$	Net Cash Flow \$	Gain/Loss \$	Ending Market Value \$	%Return
Mar-2018	151,068,658	36,560,097	39,599,539	-3,039,442	-1,310,015	146,719,201	-0.90
Jun-2018	146,719,201	2,531,546	4,858,682	-2,327,136	3,494,498	147,886,563	2.40
Sep-2018	147,886,563	21,023,715	23,353,030	-2,329,315	5,161,780	150,719,028	3.51
Dec-2018	150,719,028	21,868,800	12,579,706	9,289,095	-13,690,229	146,317,894	-8.54
Mar-2019	146,317,894	3,053,173	6,698,694	-3,645,521	12,799,990	155,472,363	8.81
Jun-2019	155,472,363	8,994,188	11,622,765	-2,628,576	4,830,123	157,673,909	3.15
	15,998,300	268,880,201	227,521,500	41,358,701	100,316,908	157,673,909	6.31



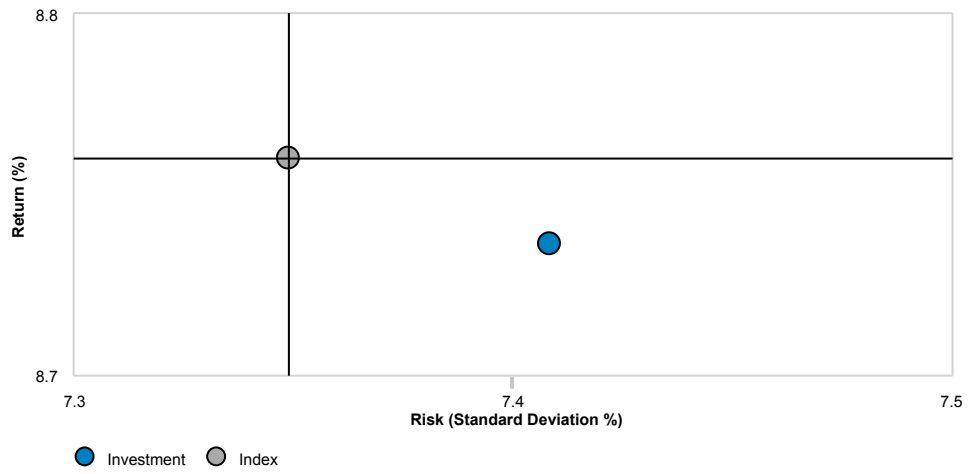
Historical Statistics 3 Years

	Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters
Investment	8.74	7.41	0.99	101.50	10	103.97	2
Index	8.76	7.35	1.00	100.00	10	100.00	2

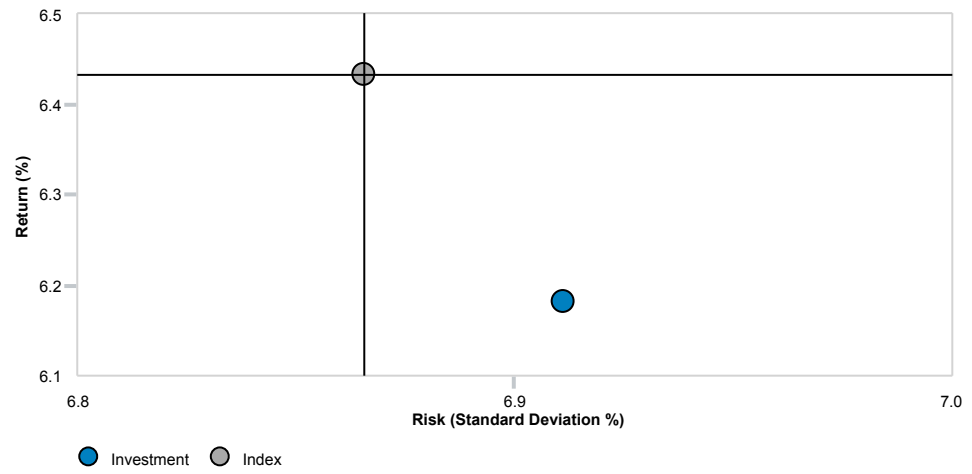
Historical Statistics 5 Years

	Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters
Investment	6.18	6.91	0.79	99.58	15	106.50	5
Index	6.43	6.87	0.83	100.00	15	100.00	5

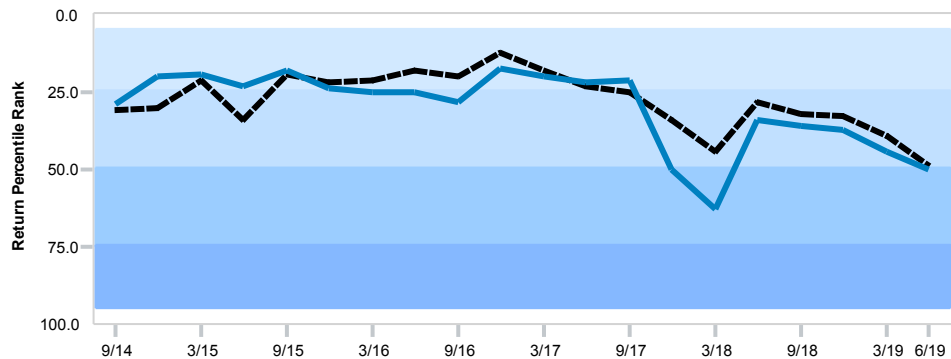
Risk and Return 3 Years



Risk and Return 5 Years

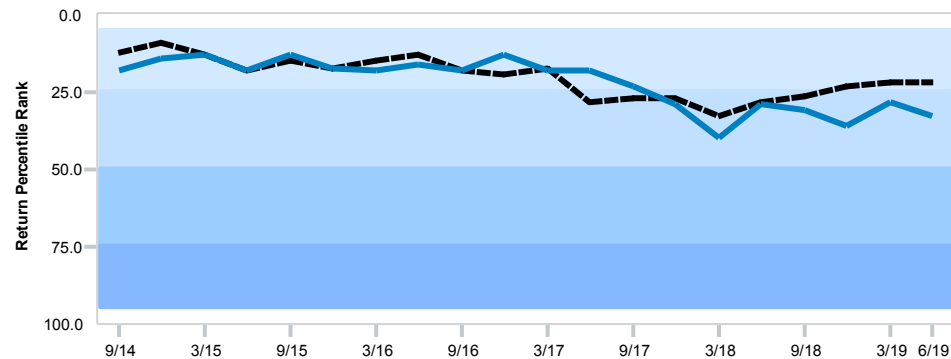


3 Year Rolling Percentile Rank All Public Plans-Total Fund



	Total Period	5-25 Count	25-Median Count	Median-75 Count	75-95 Count
Investment	20	11 (55%)	8 (40%)	1 (5%)	0 (0%)
Index	20	10 (50%)	10 (50%)	0 (0%)	0 (0%)

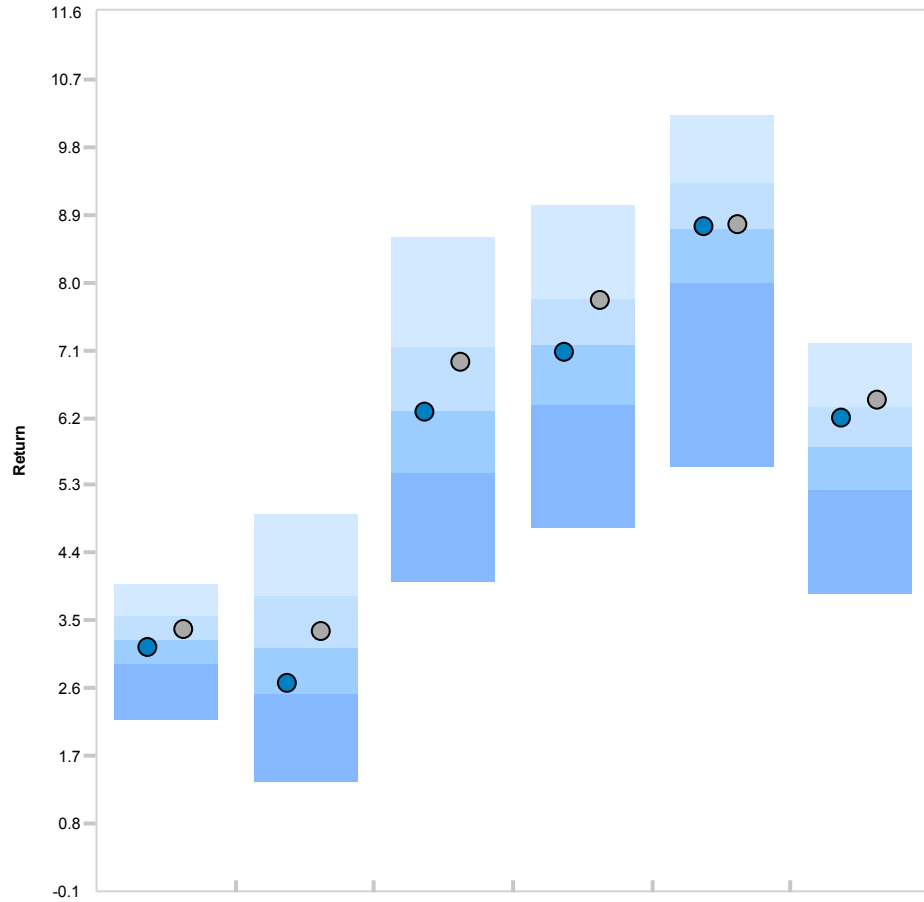
5 Year Rolling Percentile Rank All Public Plans-Total Fund



	Total Period	5-25 Count	25-Median Count	Median-75 Count	75-95 Count
Investment	20	13 (65%)	7 (35%)	0 (0%)	0 (0%)
Index	20	14 (70%)	6 (30%)	0 (0%)	0 (0%)

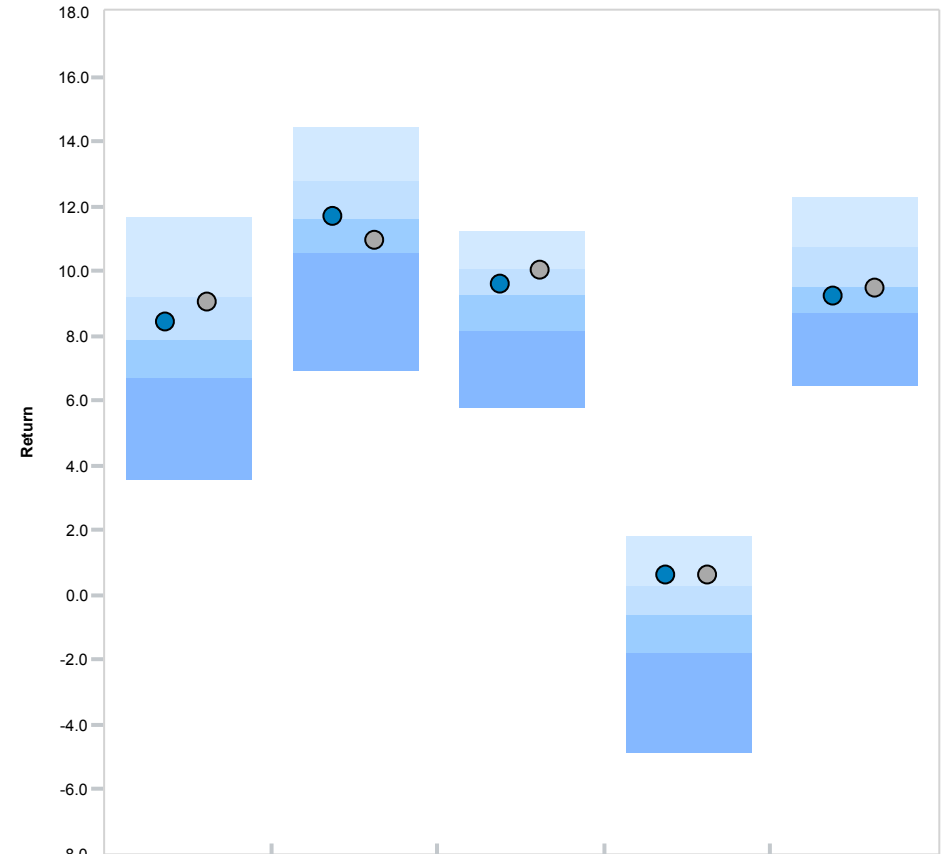


Plan Sponsor Peer Group Analysis vs. All Public Plans-Total Fund



	QTR	FYTD	1 YR	2 YR	3 YR	5 YR
● Investment	3.15 (60)	2.65 (71)	6.26 (53)	7.05 (56)	8.74 (50)	6.18 (33)
● Index	3.38 (36)	3.35 (42)	6.92 (30)	7.75 (26)	8.76 (49)	6.43 (22)
Median	3.24	3.15	6.31	7.16	8.71	5.82

Plan Sponsor Peer Group Analysis vs. All Public Plans-Total Fund



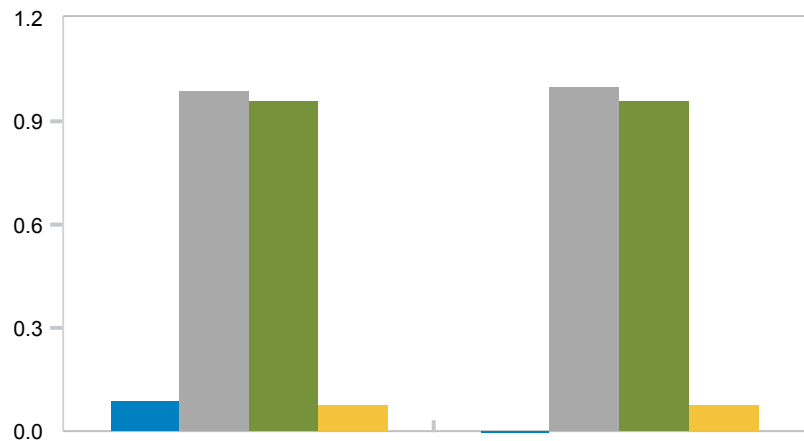
	4 Quarters Ending Sep-2018	4 Quarters Ending Sep-2017	4 Quarters Ending Sep-2016	4 Quarters Ending Sep-2015	4 Quarters Ending Sep-2014
● Investment	8.38 (39)	11.66 (48)	9.56 (44)	0.60 (20)	9.19 (59)
● Index	9.00 (29)	10.90 (70)	10.01 (28)	0.59 (20)	9.47 (52)
Median	7.86	11.61	9.30	-0.63	9.52

Comparative Performance

	1 Qtr Ending Mar-2019	1 Qtr Ending Dec-2018	1 Qtr Ending Sep-2018	1 Qtr Ending Jun-2018	1 Qtr Ending Mar-2018	1 Qtr Ending Dec-2017
Investment	8.81 (53)	-8.54 (57)	3.51 (30)	2.40 (7)	-0.90 (85)	3.17 (82)
Index	9.15 (40)	-8.40 (55)	3.45 (35)	2.16 (12)	-0.59 (65)	3.74 (50)
Median	8.88	-8.29	3.26	1.22	-0.49	3.74

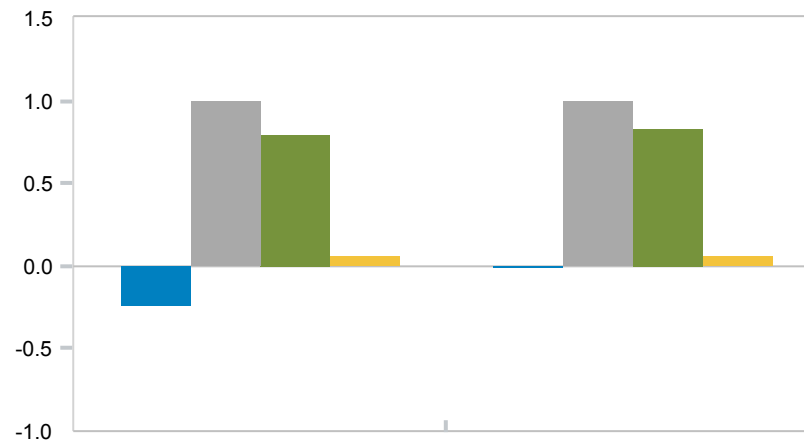


Risk / Reward Historical Statistics 3 Years Ending June 30, 2019



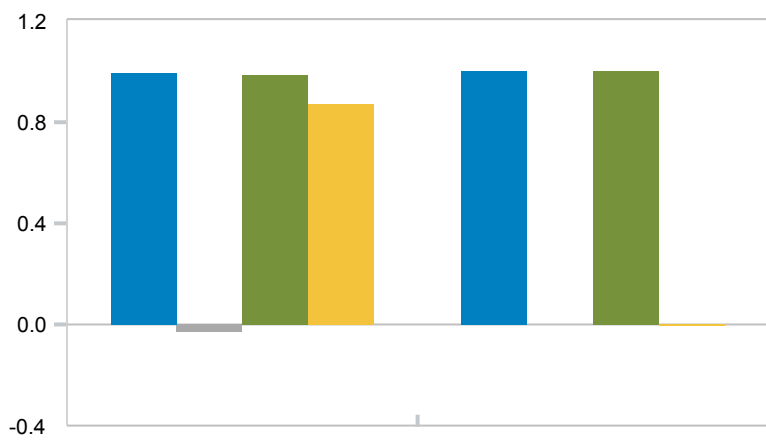
	Total Fund Composite	Total Fund Policy Index
Alpha	0.08	0.00
Beta	0.99	1.00
Sharpe Ratio	0.96	0.96
Treynor Ratio	0.07	0.07

Risk / Reward Historical Statistics 5 Years Ending June 30, 2019



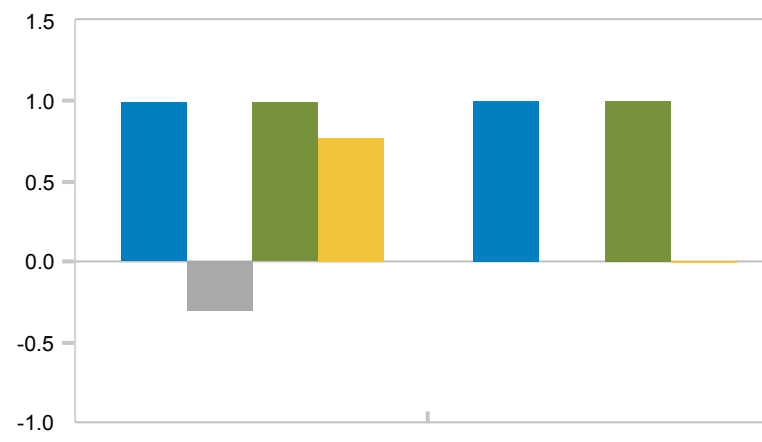
	Total Fund Composite	Total Fund Policy Index
Alpha	-0.24	0.00
Beta	1.00	1.00
Sharpe Ratio	0.79	0.83
Treynor Ratio	0.05	0.06

Benchmark Relative Historical Statistics 3 Years Ending June 30, 2019



	Total Fund Composite	Total Fund Policy Index
Actual Correlation	0.99	1.00
Information Ratio	-0.03	N/A
R-Squared	0.99	1.00
Tracking Error	0.87	0.00

Benchmark Relative Historical Statistics 5 Years Ending June 30, 2019

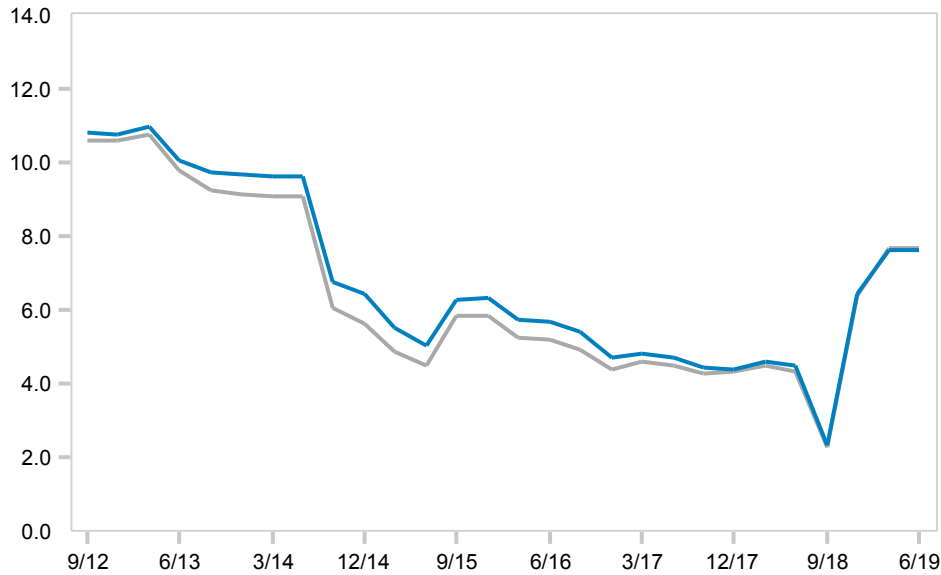


	Total Fund Composite	Total Fund Policy Index
Actual Correlation	0.99	1.00
Information Ratio	-0.31	N/A
R-Squared	0.99	1.00
Tracking Error	0.77	0.00

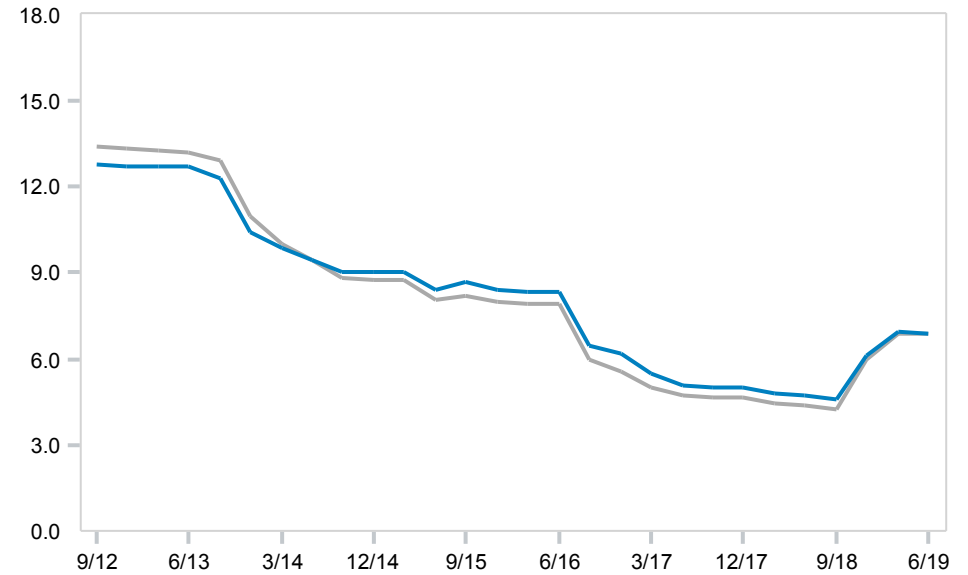
Benchmark: Total Fund Policy Index



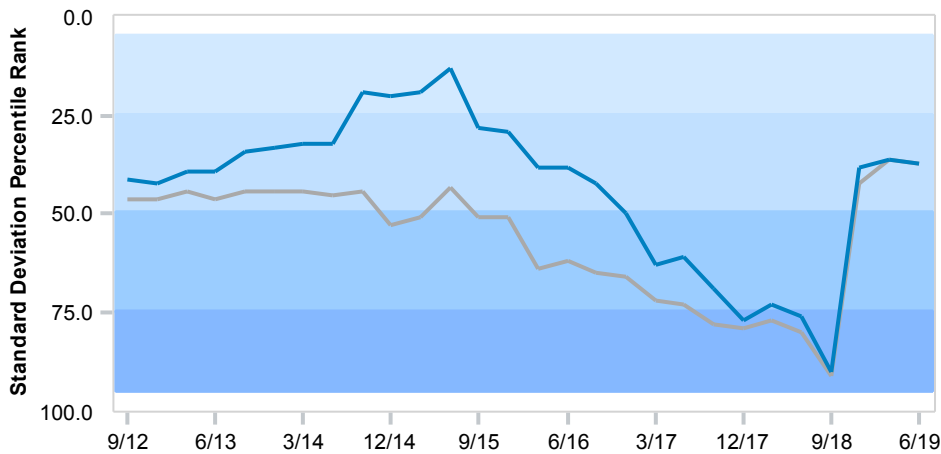
Standard Deviation 12 Quarters Rolling Periods As of June 30, 2019



Standard Deviation 20 Quarters Rolling Periods As of June 30, 2019

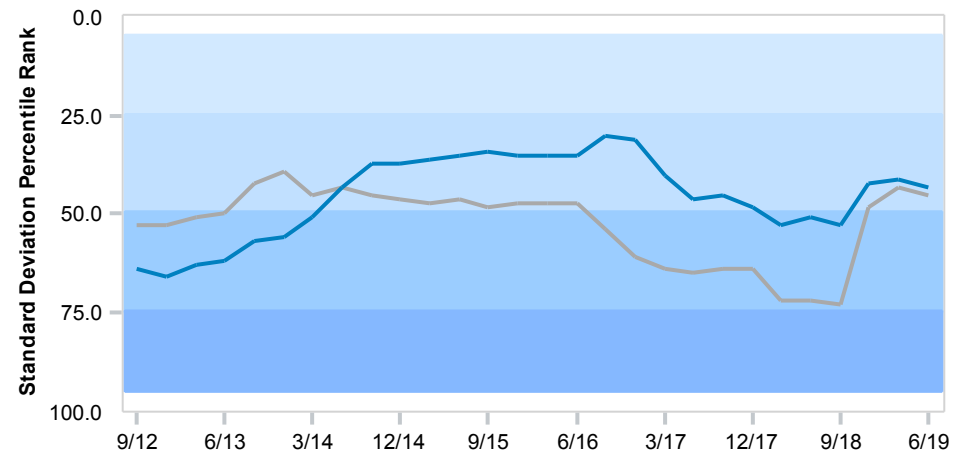


Rolling Percentile Ranking 12 Quarters Rolling Periods As of June 30, 2019



	Total Period	5-25 Count	25-50 Count	50-75 Count	75-95 Count
— Total Fund Composite	28	4 (14%)	17 (61%)	4 (14%)	3 (11%)
— Total Fund Policy Index	28	0 (0%)	13 (46%)	10 (36%)	5 (18%)

Rolling Percentile Ranking 20 Quarters Rolling Periods As of June 30, 2019



	Total Period	5-25 Count	25-50 Count	50-75 Count	75-95 Count
— Total Fund Composite	28	0 (0%)	18 (64%)	10 (36%)	0 (0%)
— Total Fund Policy Index	28	0 (0%)	16 (57%)	12 (43%)	0 (0%)

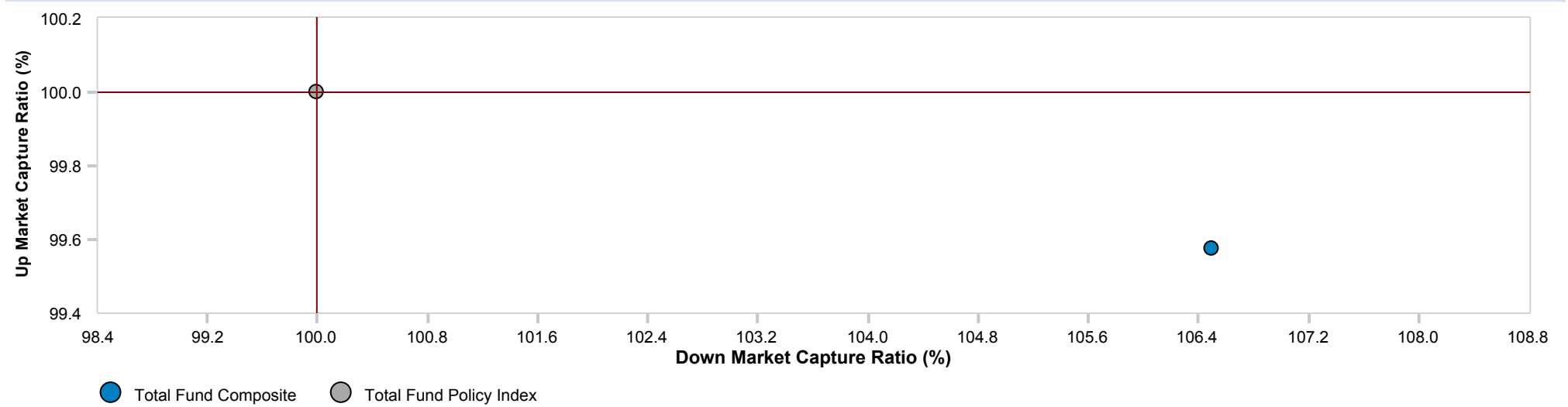
Peer: All Public Plans-Total Fund



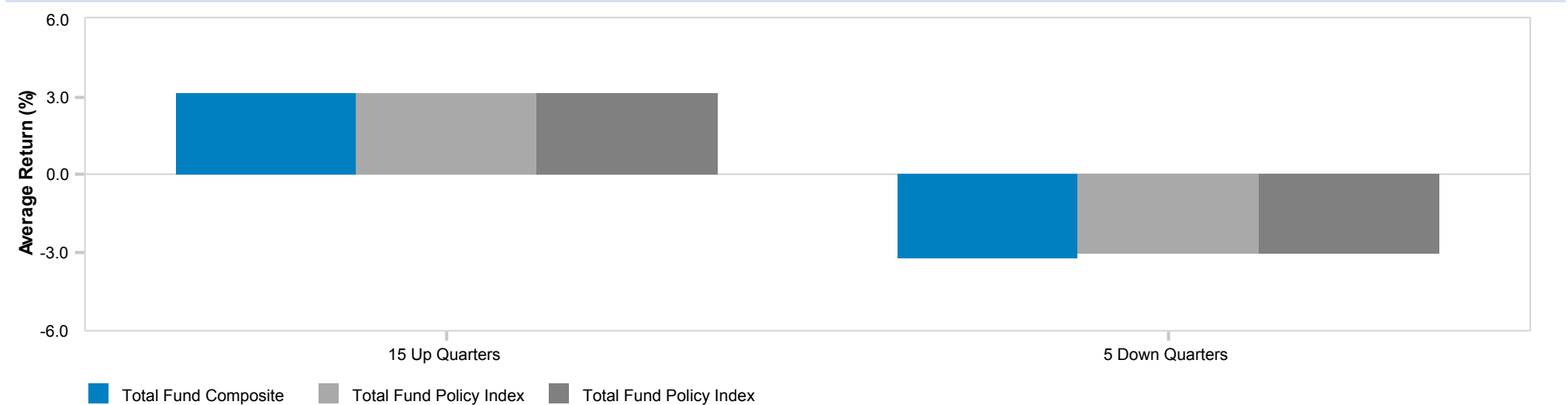
Up/Down Markets

	Full Period Return		Quarters Benchmark Up(15)				Quarters Benchmark Down(5)			
	Portfolio	Benchmark	Portfolio Ahead		Portfolio Behind		Portfolio Ahead		Portfolio Behind	
			No. Quarters	Avg Ahead	No. Quarters	Avg Behind	No. Quarters	Avg Ahead	No. Quarters	Avg Behind
Total Fund Composite	6.18	6.43	6	0.44	9	-0.32	0	0.00	5	-0.20
Total Fund Policy Index	6.43	6.43	15	0.00	0	0.00	5	0.00	0	0.00

Up/Down Markets



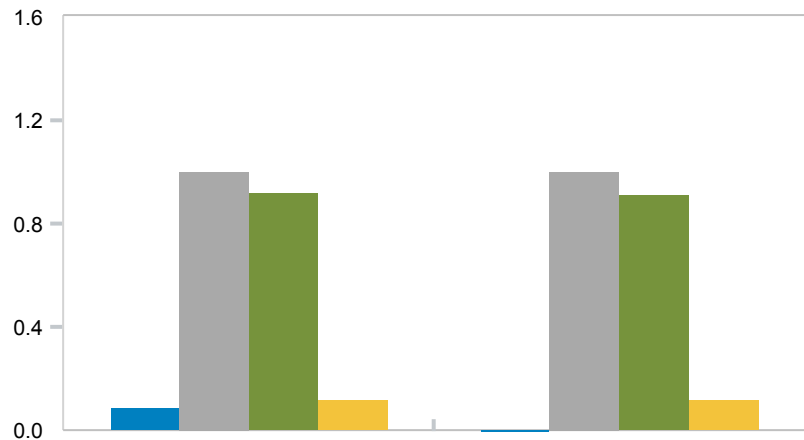
Up Down Market Bar Chart



Calculation based on quarterly periodicity.

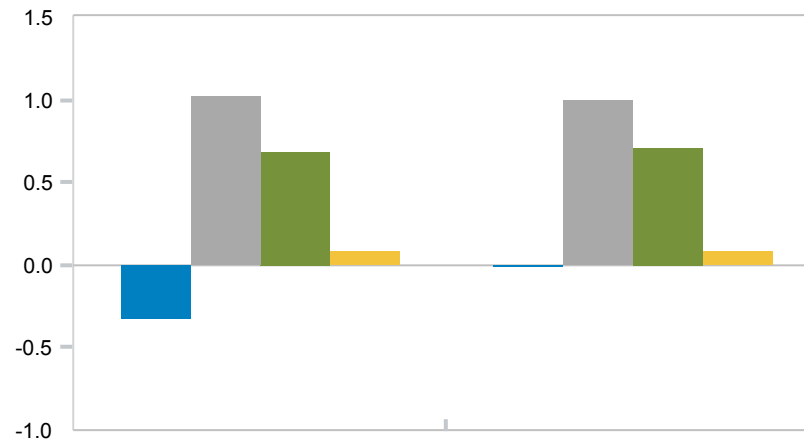


Risk / Reward Historical Statistics 3 Years Ending June 30, 2019



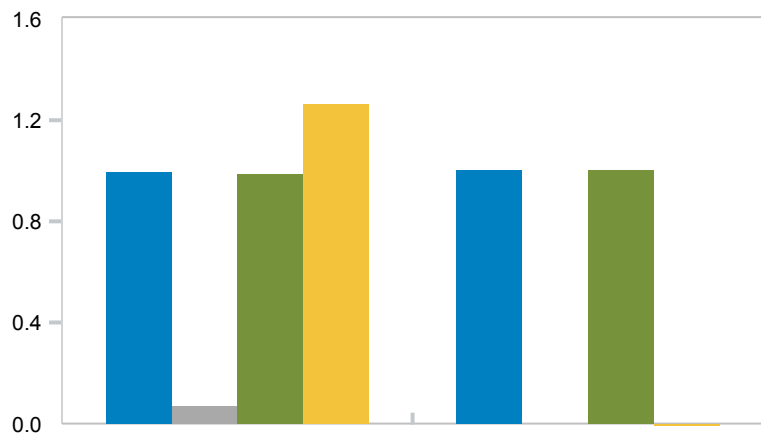
	Total Equity Composite	Total Equity Policy Index
Alpha	0.08	0.00
Beta	1.00	1.00
Sharpe Ratio	0.91	0.91
Treynor Ratio	0.12	0.12

Risk / Reward Historical Statistics 5 Years Ending June 30, 2019



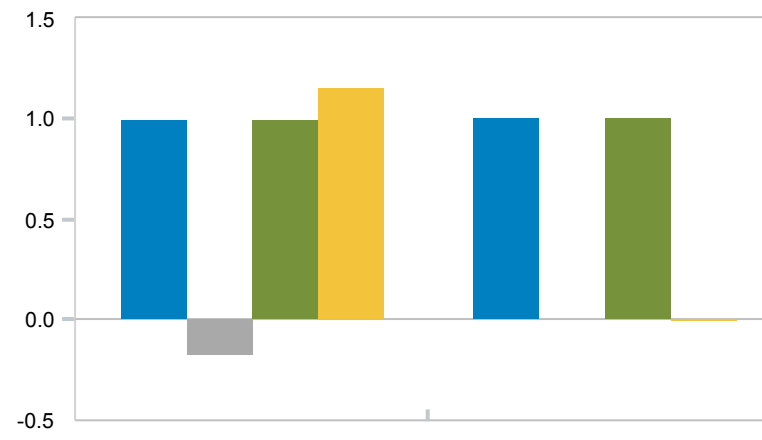
	Total Equity Composite	Total Equity Policy Index
Alpha	-0.33	0.00
Beta	1.01	1.00
Sharpe Ratio	0.68	0.71
Treynor Ratio	0.08	0.08

Benchmark Relative Historical Statistics 3 Years Ending June 30, 2019



	Total Equity Composite	Total Equity Policy Index
Actual Correlation	1.00	1.00
Information Ratio	0.07	N/A
R-Squared	0.99	1.00
Tracking Error	1.26	0.00

Benchmark Relative Historical Statistics 5 Years Ending June 30, 2019

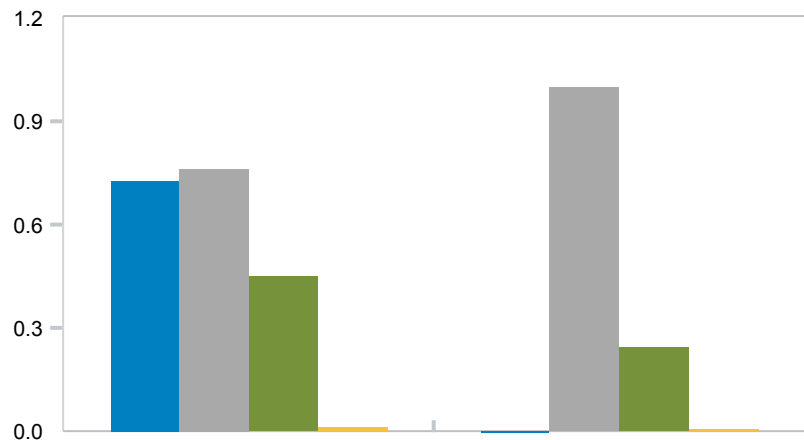


	Total Equity Composite	Total Equity Policy Index
Actual Correlation	1.00	1.00
Information Ratio	-0.17	N/A
R-Squared	0.99	1.00
Tracking Error	1.15	0.00

Benchmark: Total Equity Policy Index

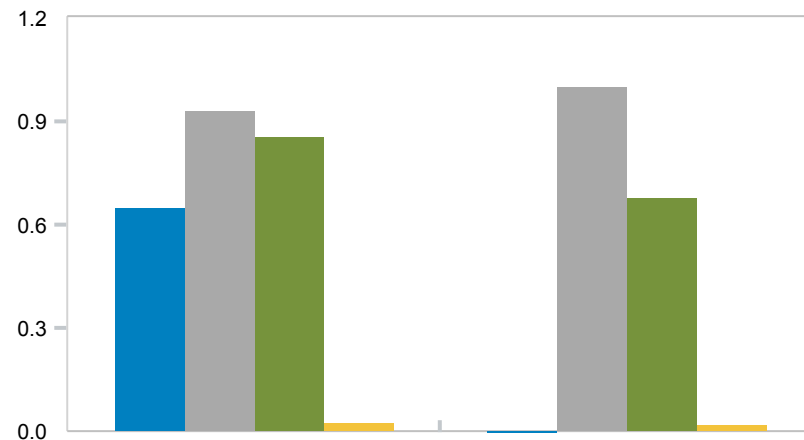


Risk / Reward Historical Statistics 3 Years Ending June 30, 2019



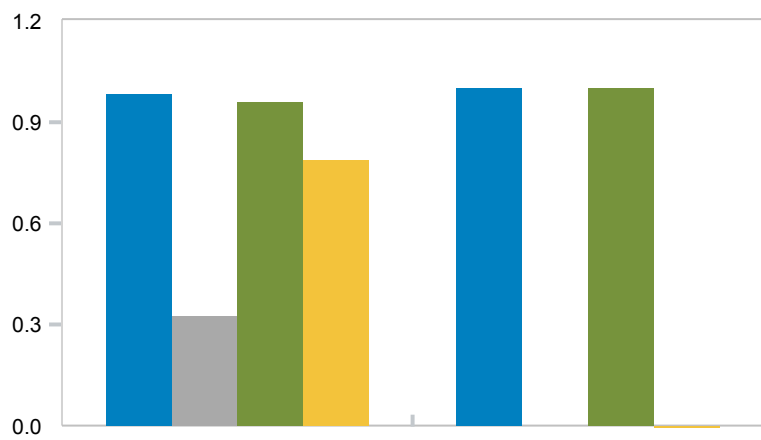
	Total Fixed Income Composite	Total Fixed Income Policy Index
Alpha	0.73	0.00
Beta	0.76	1.00
Sharpe Ratio	0.45	0.24
Treynor Ratio	0.01	0.01

Risk / Reward Historical Statistics 5 Years Ending June 30, 2019



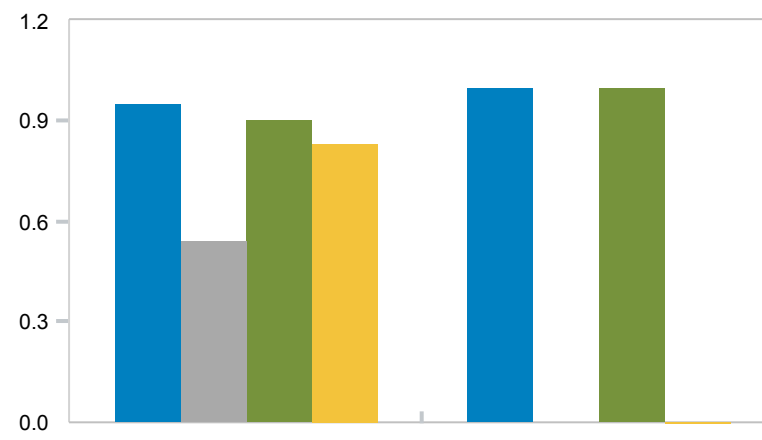
	Total Fixed Income Composite	Total Fixed Income Policy Index
Alpha	0.64	0.00
Beta	0.93	1.00
Sharpe Ratio	0.86	0.67
Treynor Ratio	0.02	0.02

Benchmark Relative Historical Statistics 3 Years Ending June 30, 2019



	Total Fixed Income Composite	Total Fixed Income Policy Index
Actual Correlation	0.98	1.00
Information Ratio	0.32	N/A
R-Squared	0.96	1.00
Tracking Error	0.79	0.00

Benchmark Relative Historical Statistics 5 Years Ending June 30, 2019



	Total Fixed Income Composite	Total Fixed Income Policy Index
Actual Correlation	0.95	1.00
Information Ratio	0.54	N/A
R-Squared	0.90	1.00
Tracking Error	0.83	0.00

Benchmark: Total Fixed Income Policy Index



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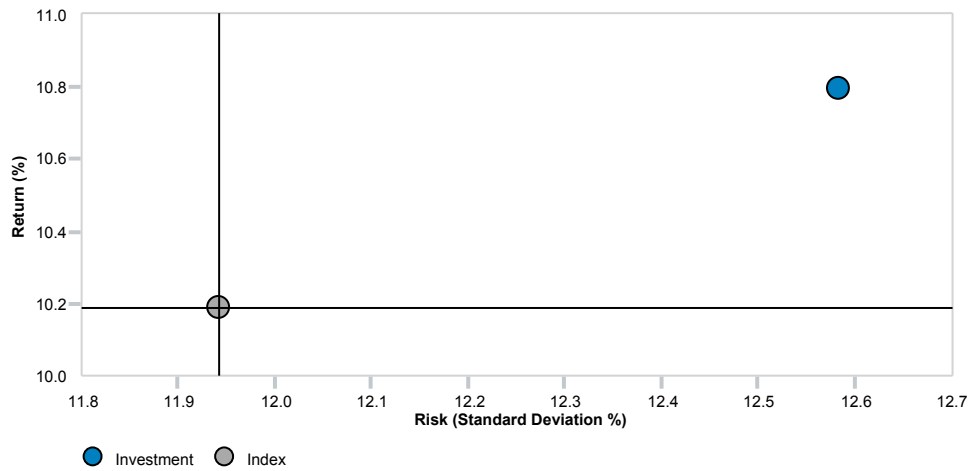
Historical Statistics 3 Years

	Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters
Investment	10.79	12.58	0.77	104.01	10	102.01	2
Index	10.19	11.94	0.76	100.00	10	100.00	2

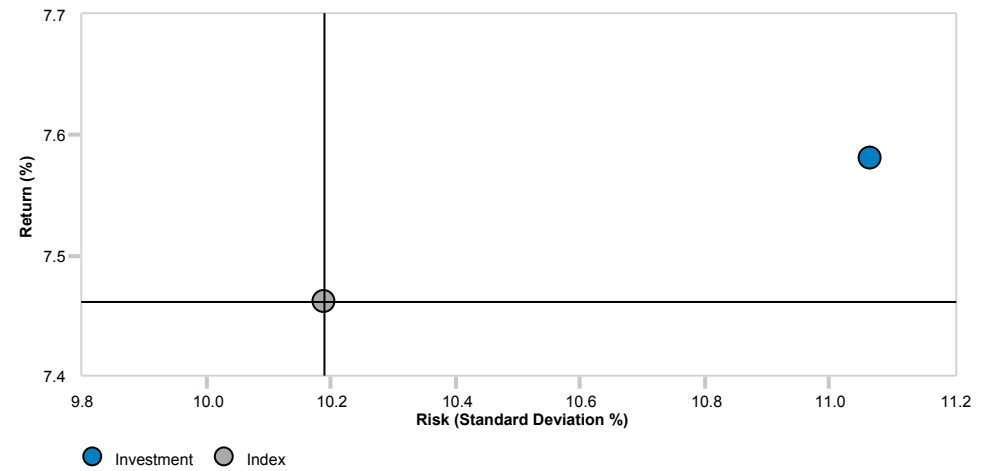
Historical Statistics 5 Years

	Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters
Investment	7.58	11.07	0.65	108.40	15	117.66	5
Index	7.46	10.19	0.68	100.00	15	100.00	5

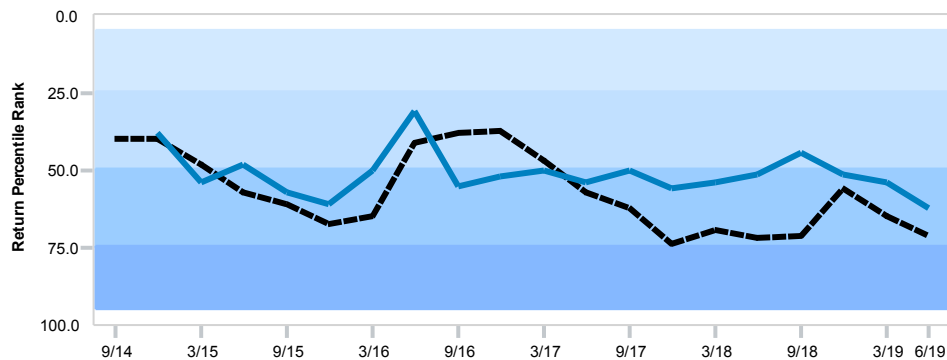
Risk and Return 3 Years



Risk and Return 5 Years

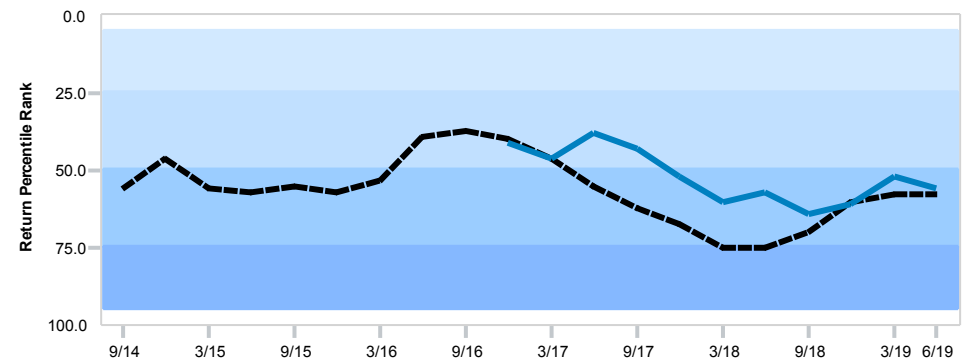


3 Year Rolling Percentile Rank IM U.S. Large Cap Value Equity (SA+CF)



	Total Period	5-25 Count	25-Median Count	Median-75 Count	75-95 Count
Investment	19	0 (0%)	7 (37%)	12 (63%)	0 (0%)
Index	20	0 (0%)	7 (35%)	13 (65%)	0 (0%)

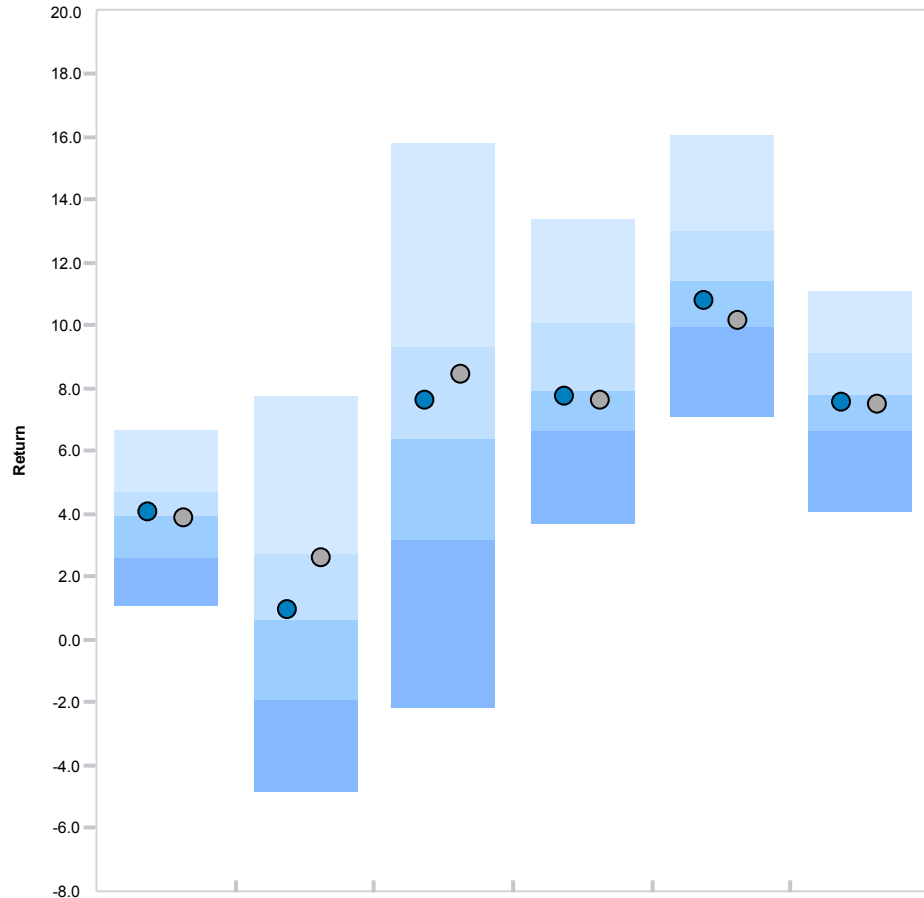
5 Year Rolling Percentile Rank IM U.S. Large Cap Value Equity (SA+CF)



	Total Period	5-25 Count	25-Median Count	Median-75 Count	75-95 Count
Investment	11	0 (0%)	4 (36%)	7 (64%)	0 (0%)
Index	20	0 (0%)	5 (25%)	15 (75%)	0 (0%)

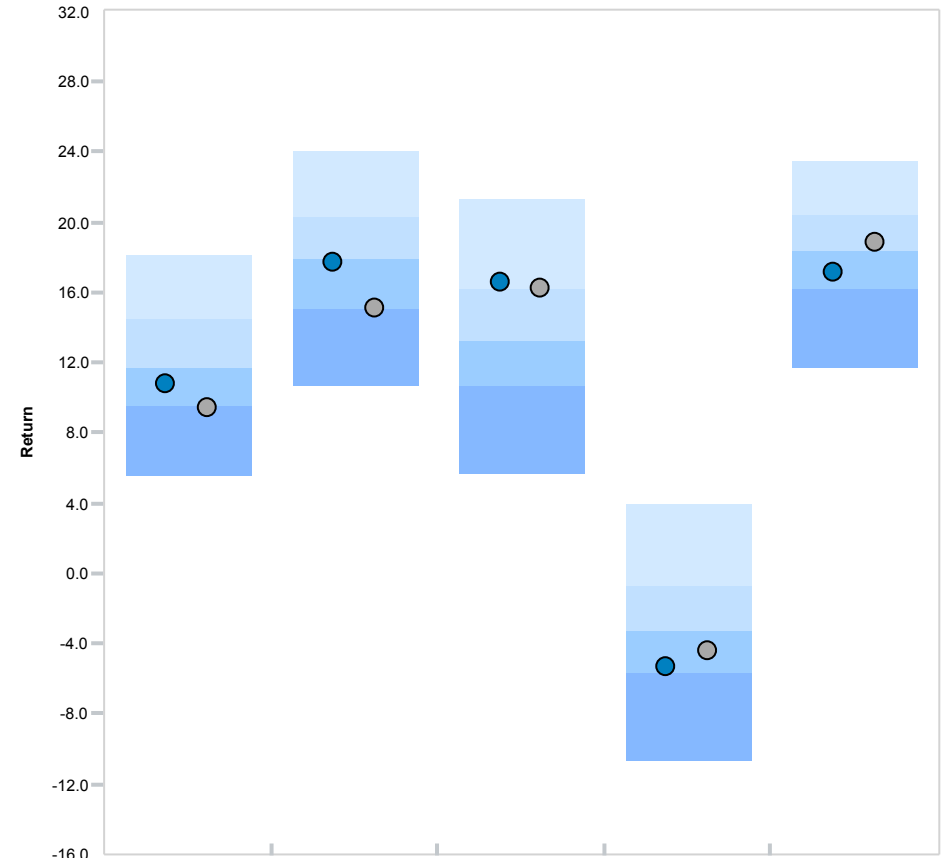


Plan Sponsor Peer Group Analysis vs. IM U.S. Large Cap Value Equity (SA+CF)



	QTR	FYTD	1 YR	2 YR	3 YR	5 YR
● Investment	4.08 (45)	0.94 (46)	7.65 (37)	7.73 (55)	10.79 (62)	7.58 (56)
● Index	3.84 (51)	2.61 (27)	8.46 (31)	7.61 (55)	10.19 (71)	7.46 (58)
Median	3.91	0.62	6.44	7.95	11.42	7.79

Plan Sponsor Peer Group Analysis vs. IM U.S. Large Cap Value Equity (SA+CF)



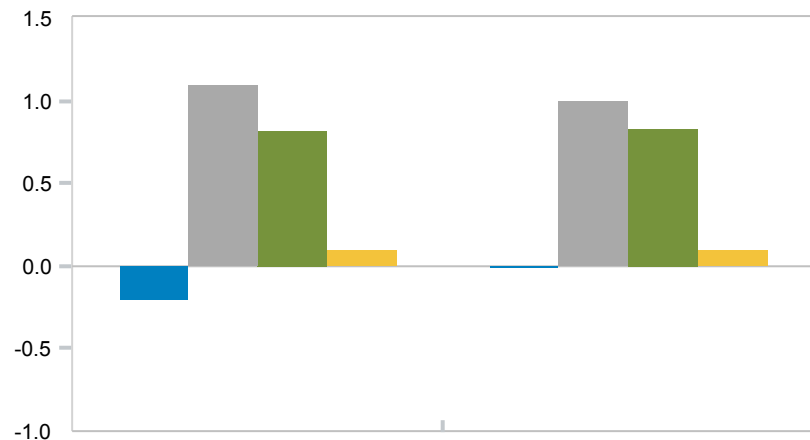
	4 Quarters Ending Sep-2018	4 Quarters Ending Sep-2017	4 Quarters Ending Sep-2016	4 Quarters Ending Sep-2015	4 Quarters Ending Sep-2014
● Investment	10.74 (62)	17.71 (54)	16.57 (23)	-5.35 (71)	17.16 (66)
● Index	9.45 (77)	15.12 (75)	16.19 (26)	-4.42 (64)	18.89 (43)
Median	11.72	17.89	13.22	-3.29	18.40

Comparative Performance

	1 Qtr Ending Mar-2019	1 Qtr Ending Dec-2018	1 Qtr Ending Sep-2018	1 Qtr Ending Jun-2018	1 Qtr Ending Mar-2018	1 Qtr Ending Dec-2017
Investment	11.83 (49)	-13.27 (48)	6.64 (30)	1.94 (44)	-4.02 (94)	6.14 (55)
Index	11.93 (46)	-11.72 (30)	5.70 (50)	1.18 (66)	-2.83 (74)	5.33 (76)
Median	11.75	-13.51	5.70	1.73	-1.98	6.31

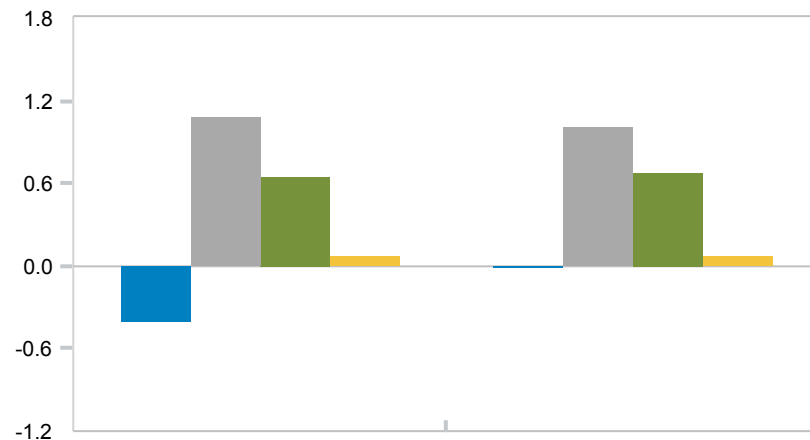


Risk / Reward Historical Statistics 3 Years Ending June 30, 2019



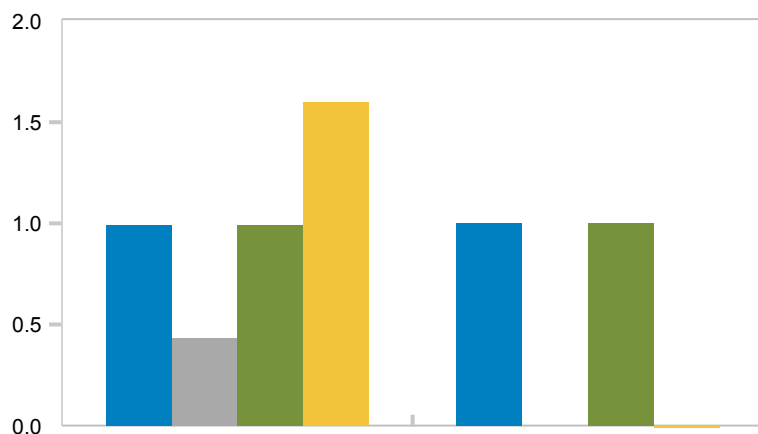
	Ceredex Equity	Russell 1000 Value Index
Alpha	-0.21	0.00
Beta	1.09	1.00
Sharpe Ratio	0.81	0.82
Treynor Ratio	0.09	0.09

Risk / Reward Historical Statistics 5 Years Ending June 30, 2019



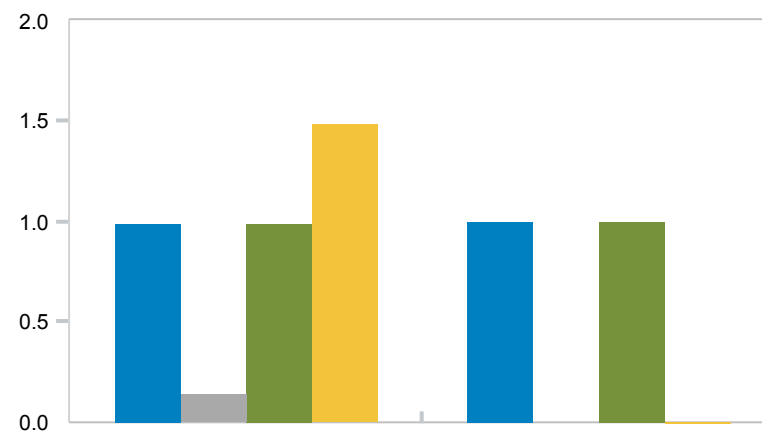
	Ceredex Equity	Russell 1000 Value Index
Alpha	-0.40	0.00
Beta	1.08	1.00
Sharpe Ratio	0.65	0.68
Treynor Ratio	0.07	0.07

Benchmark Relative Historical Statistics 3 Years Ending June 30, 2019



	Ceredex Equity	Russell 1000 Value Index
Actual Correlation	0.99	1.00
Information Ratio	0.43	N/A
R-Squared	0.99	1.00
Tracking Error	1.59	0.00

Benchmark Relative Historical Statistics 5 Years Ending June 30, 2019



	Ceredex Equity	Russell 1000 Value Index
Actual Correlation	0.99	1.00
Information Ratio	0.14	N/A
R-Squared	0.99	1.00
Tracking Error	1.48	0.00

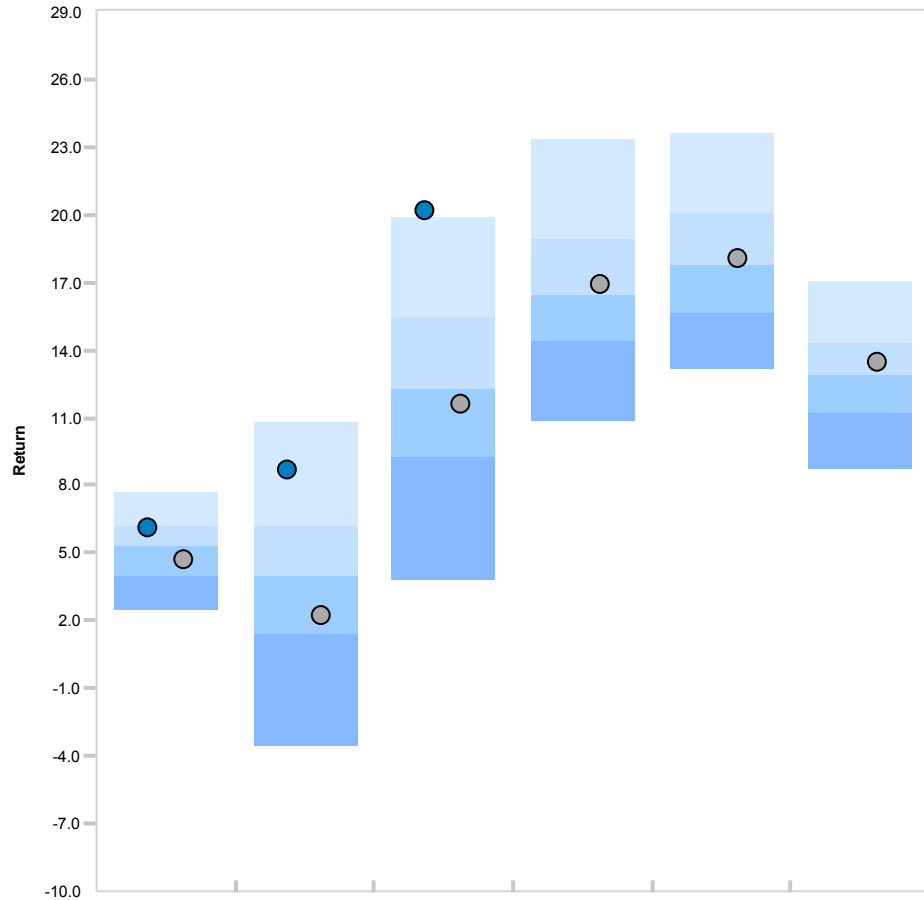
Benchmark: Russell 1000 Value Index



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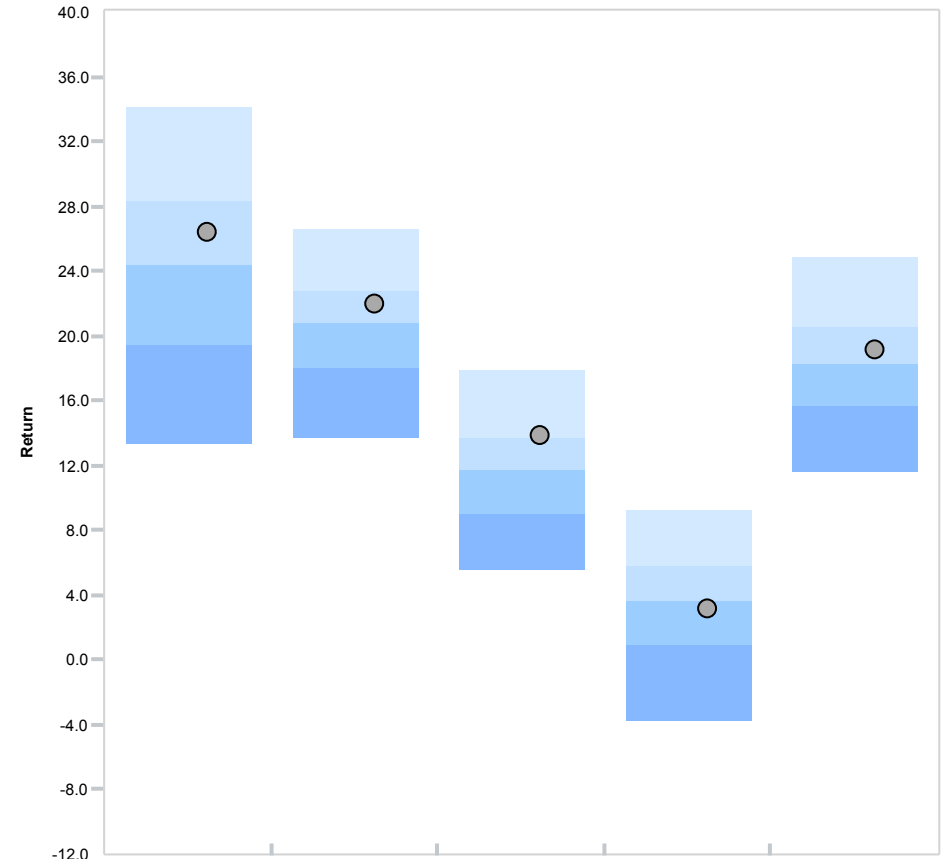


Plan Sponsor Peer Group Analysis vs. IM U.S. Large Cap Growth Equity (SA+CF)



	QTR	FYTD	1 YR	2 YR	3 YR	5 YR
● Investment	6.10 (28)	8.67 (12)	20.13 (4)	N/A	N/A	N/A
● Index	4.64 (63)	2.19 (68)	11.56 (57)	16.91 (46)	18.07 (45)	13.39 (43)
Median	5.30	3.99	12.28	16.42	17.75	12.90

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



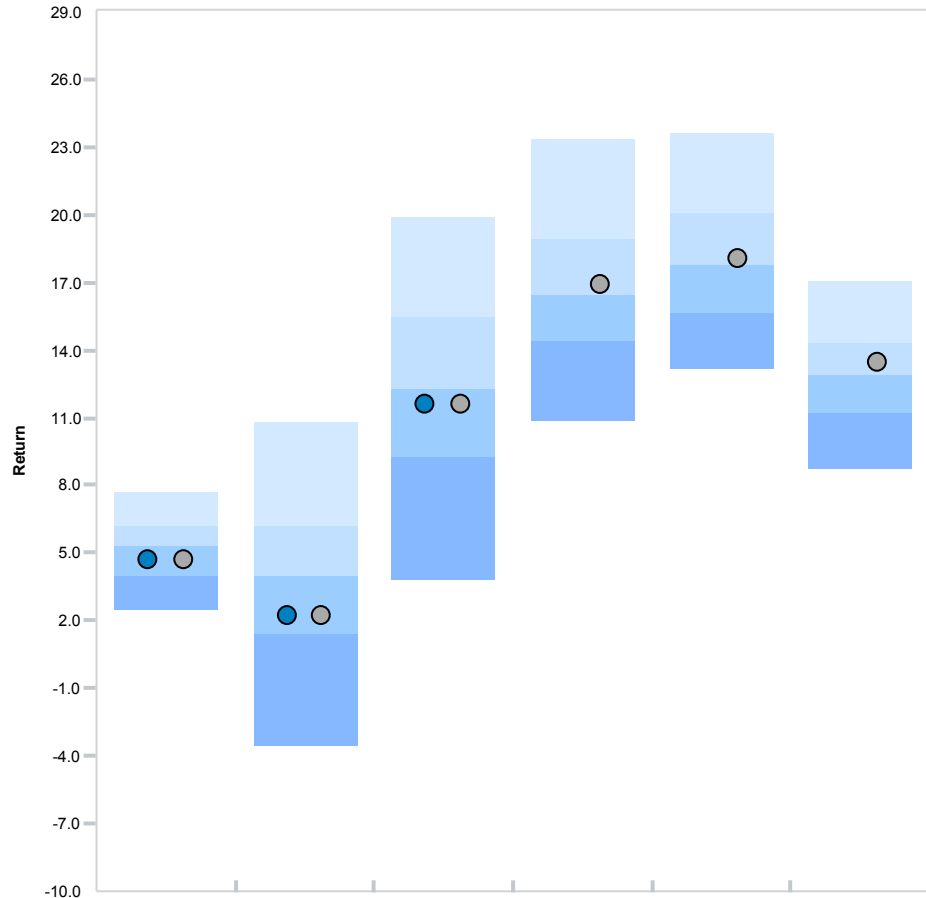
	4 Quarters Ending Sep-2018	4 Quarters Ending Sep-2017	4 Quarters Ending Sep-2016	4 Quarters Ending Sep-2015	4 Quarters Ending Sep-2014
● Investment	N/A	N/A	N/A	N/A	N/A
● Index	26.30 (37)	21.94 (37)	13.76 (23)	3.17 (55)	19.15 (40)
Median	24.44	20.81	11.69	3.60	18.19

Comparative Performance

	1 Qtr Ending Mar-2019	1 Qtr Ending Dec-2018	1 Qtr Ending Sep-2018	1 Qtr Ending Jun-2018	1 Qtr Ending Mar-2018	1 Qtr Ending Dec-2017
Investment	17.10 (31)	-12.53 (22)	10.55 (7)	9.15 (3)	3.08 (36)	N/A
Index	16.10 (46)	-15.89 (61)	9.17 (23)	5.76 (42)	1.42 (61)	7.86 (21)
Median	15.90	-15.14	8.14	5.26	2.09	6.89

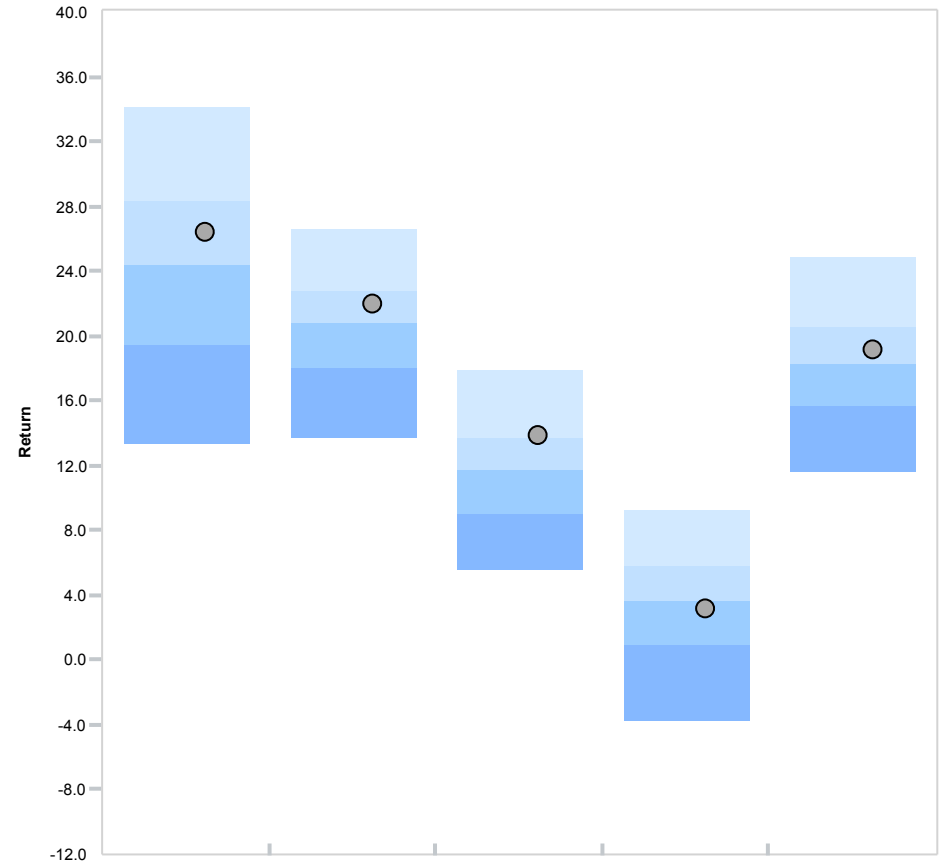


Plan Sponsor Peer Group Analysis vs. IM U.S. Large Cap Growth Equity (SA+CF)



	QTR	FYTD	1 YR	2 YR	3 YR	5 YR
Investment	4.65 (63)	2.19 (68)	11.55 (57)	N/A	N/A	N/A
Index	4.64 (63)	2.19 (68)	11.56 (57)	16.91 (46)	18.07 (45)	13.39 (43)
Median	5.30	3.99	12.28	16.42	17.75	12.90

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



	4 Quarters Ending Sep-2018	4 Quarters Ending Sep-2017	4 Quarters Ending Sep-2016	4 Quarters Ending Sep-2015	4 Quarters Ending Sep-2014
Investment	N/A	N/A	N/A	N/A	N/A
Index	26.30 (37)	21.94 (37)	13.76 (23)	3.17 (55)	19.15 (40)
Median	24.44	20.81	11.69	3.60	18.19

Comparative Performance

	1 Qtr Ending Mar-2019	1 Qtr Ending Dec-2018	1 Qtr Ending Sep-2018	1 Qtr Ending Jun-2018	1 Qtr Ending Mar-2018	1 Qtr Ending Dec-2017
Investment	16.08 (46)	-15.87 (61)	9.16 (23)	5.76 (42)	1.42 (60)	N/A
Index	16.10 (46)	-15.89 (61)	9.17 (23)	5.76 (42)	1.42 (61)	7.86 (21)
Median	15.90	-15.14	8.14	5.26	2.09	6.89



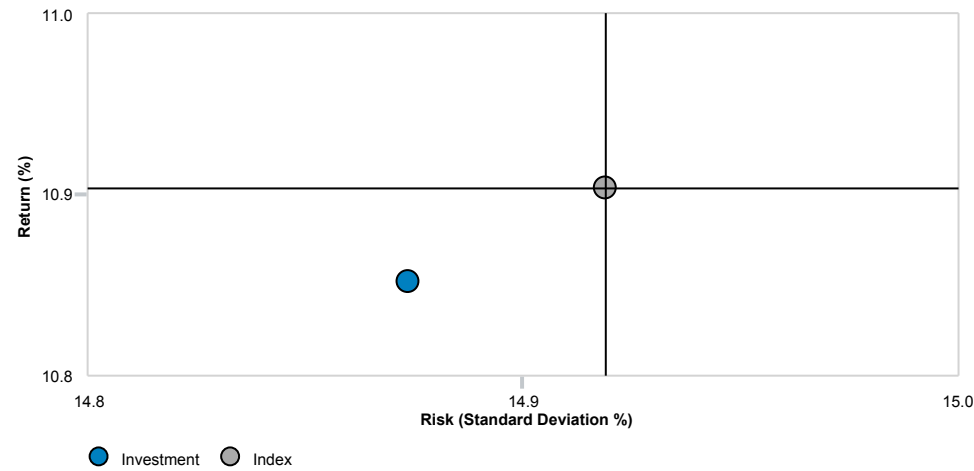
Historical Statistics 3 Years

	Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters
Investment	10.85	14.87	0.68	99.88	10	100.19	2
Index	10.90	14.92	0.68	100.00	10	100.00	2

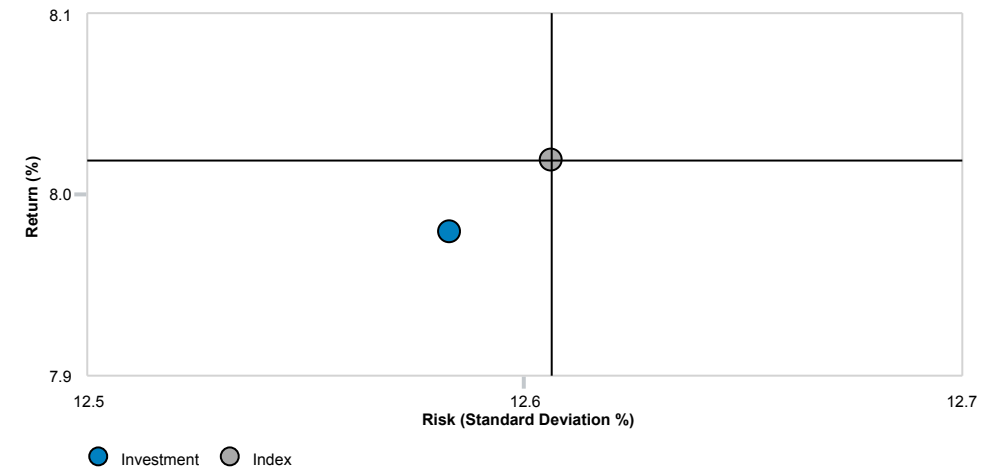
Historical Statistics 5 Years

	Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters
Investment	7.98	12.58	0.61	99.58	15	99.66	5
Index	8.02	12.61	0.62	100.00	15	100.00	5

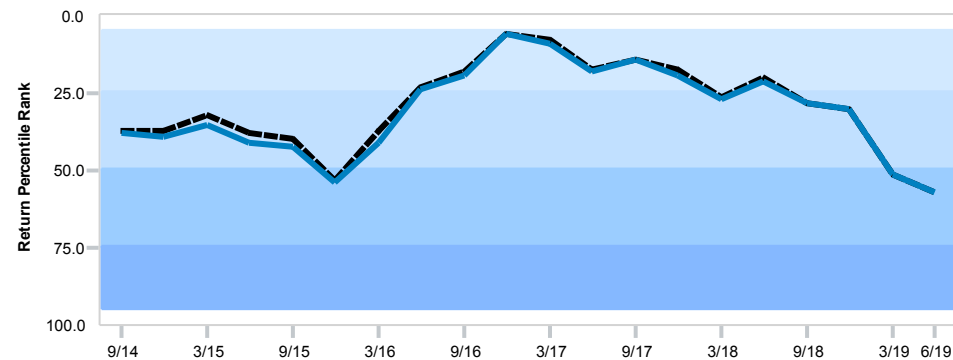
Risk and Return 3 Years



Risk and Return 5 Years

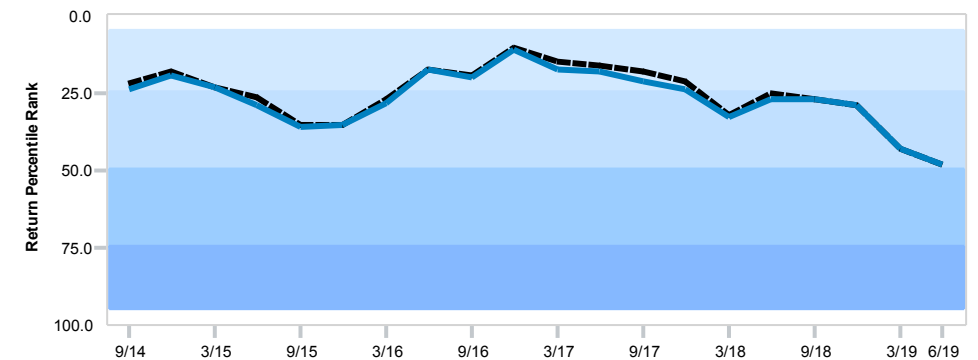


3 Year Rolling Percentile Rank IM U.S. Mid Cap Equity (MF)



	Total Period	5-25 Count	25-Median Count	Median-75 Count	75-95 Count
Investment	20	8 (40%)	9 (45%)	3 (15%)	0 (0%)
Index	20	8 (40%)	9 (45%)	3 (15%)	0 (0%)

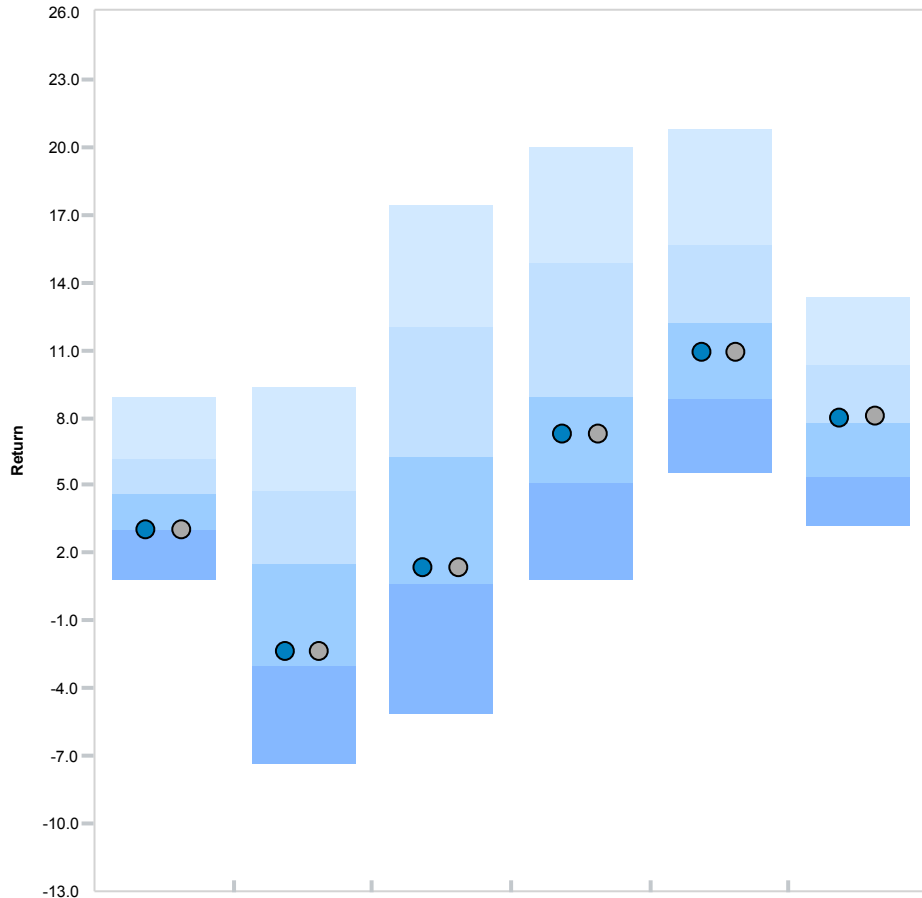
5 Year Rolling Percentile Rank IM U.S. Mid Cap Equity (MF)



	Total Period	5-25 Count	25-Median Count	Median-75 Count	75-95 Count
Investment	20	10 (50%)	10 (50%)	0 (0%)	0 (0%)
Index	20	11 (55%)	9 (45%)	0 (0%)	0 (0%)

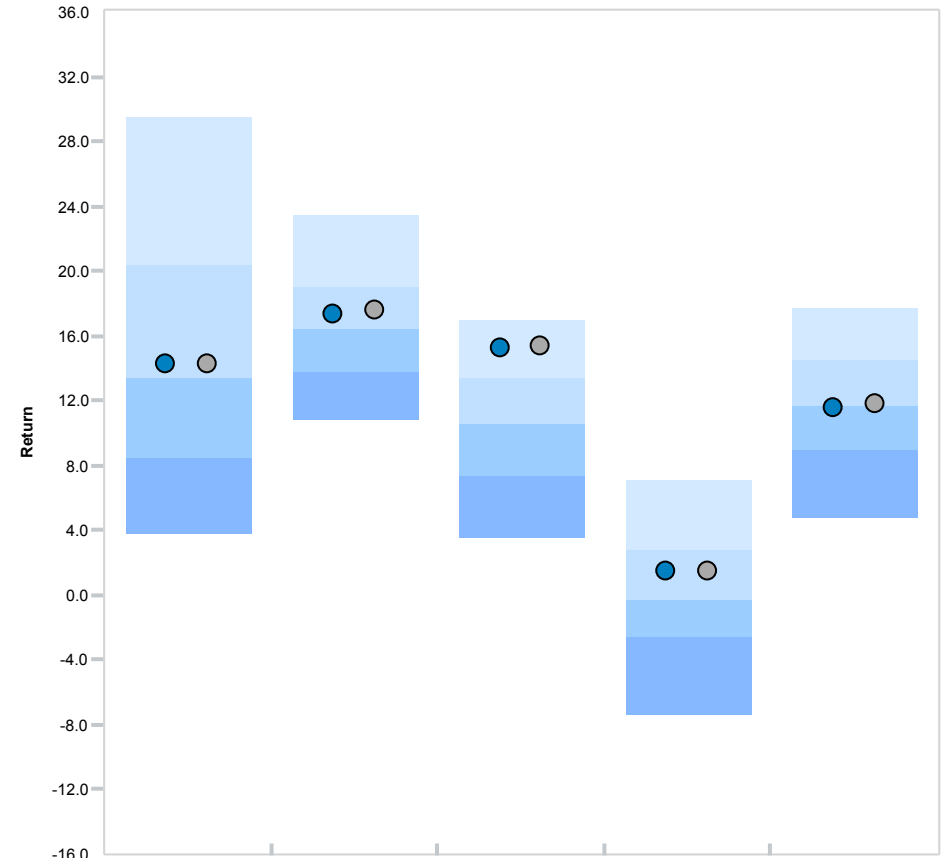


Plan Sponsor Peer Group Analysis vs. IM U.S. Mid Cap Equity (MF)



	QTR	FYTD	1 YR	2 YR	3 YR	5 YR
● Investment	3.04 (75)	-2.40 (74)	1.36 (72)	7.27 (58)	10.85 (57)	7.98 (48)
● Index	3.05 (75)	-2.41 (74)	1.36 (72)	7.26 (58)	10.90 (57)	8.02 (48)
Median	4.56	1.50	6.26	8.96	12.16	7.78

Plan Sponsor Peer Group Analysis vs. IM U.S. Mid Cap Equity (MF)



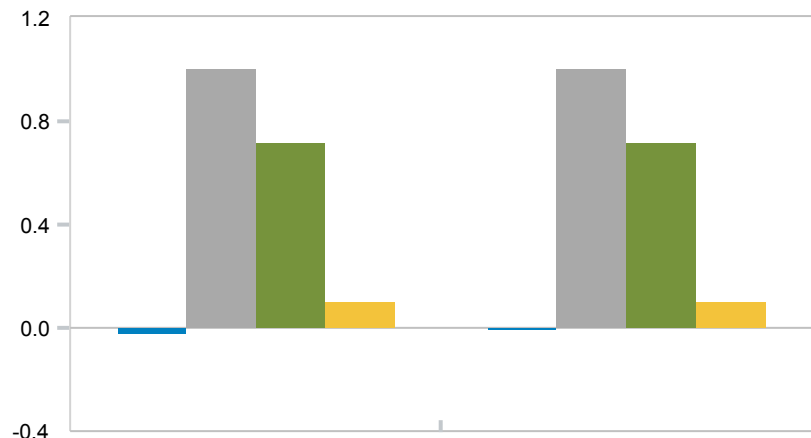
	4 Quarters Ending Sep-2018	4 Quarters Ending Sep-2017	4 Quarters Ending Sep-2016	4 Quarters Ending Sep-2015	4 Quarters Ending Sep-2014
● Investment	14.25 (46)	17.31 (41)	15.25 (15)	1.41 (36)	11.52 (52)
● Index	14.21 (47)	17.52 (39)	15.33 (15)	1.40 (36)	11.82 (50)
Median	13.44	16.49	10.55	-0.31	11.67

Comparative Performance

	1 Qtr Ending Mar-2019	1 Qtr Ending Dec-2018	1 Qtr Ending Sep-2018	1 Qtr Ending Jun-2018	1 Qtr Ending Mar-2018	1 Qtr Ending Dec-2017
Investment	14.45 (65)	-17.24 (60)	3.85 (62)	4.27 (25)	-0.70 (54)	6.25 (30)
Index	14.49 (65)	-17.28 (61)	3.86 (62)	4.29 (25)	-0.77 (55)	6.25 (30)
Median	15.53	-16.66	4.65	2.58	-0.54	5.51

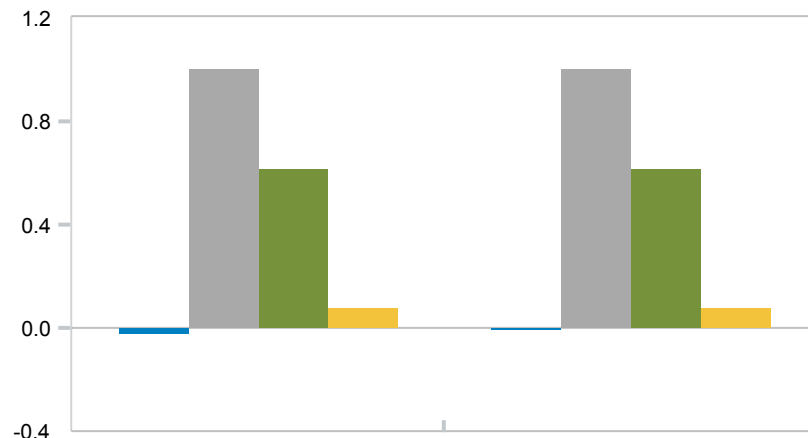


Risk / Reward Historical Statistics 3 Years Ending June 30, 2019



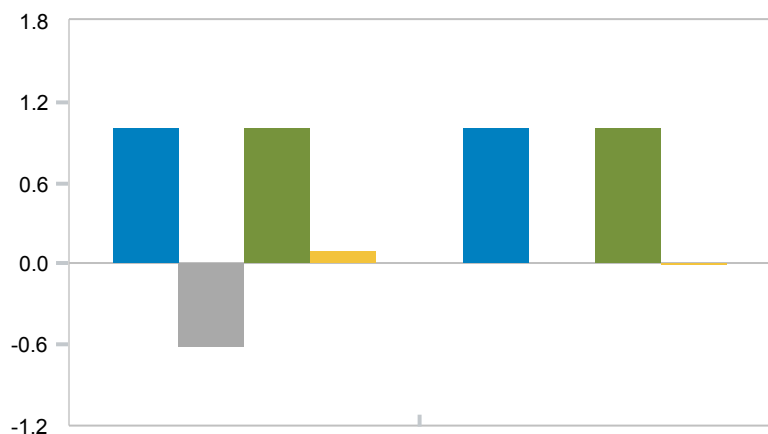
	Mutual of America Equity	S&P MidCap 400 Index
Alpha	-0.03	0.00
Beta	1.00	1.00
Sharpe Ratio	0.72	0.72
Treynor Ratio	0.10	0.10

Risk / Reward Historical Statistics 5 Years Ending June 30, 2019



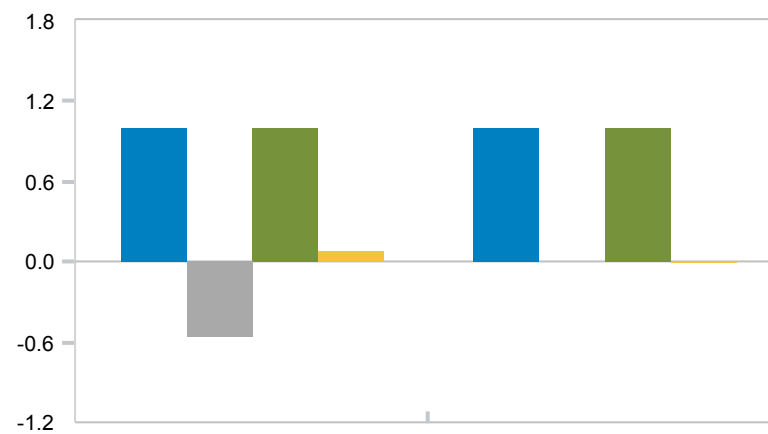
	Mutual of America Equity	S&P MidCap 400 Index
Alpha	-0.02	0.00
Beta	1.00	1.00
Sharpe Ratio	0.61	0.62
Treynor Ratio	0.08	0.08

Benchmark Relative Historical Statistics 3 Years Ending June 30, 2019



	Mutual of America Equity	S&P MidCap 400 Index
Actual Correlation	1.00	1.00
Information Ratio	-0.61	N/A
R-Squared	1.00	1.00
Tracking Error	0.09	0.00

Benchmark Relative Historical Statistics 5 Years Ending June 30, 2019

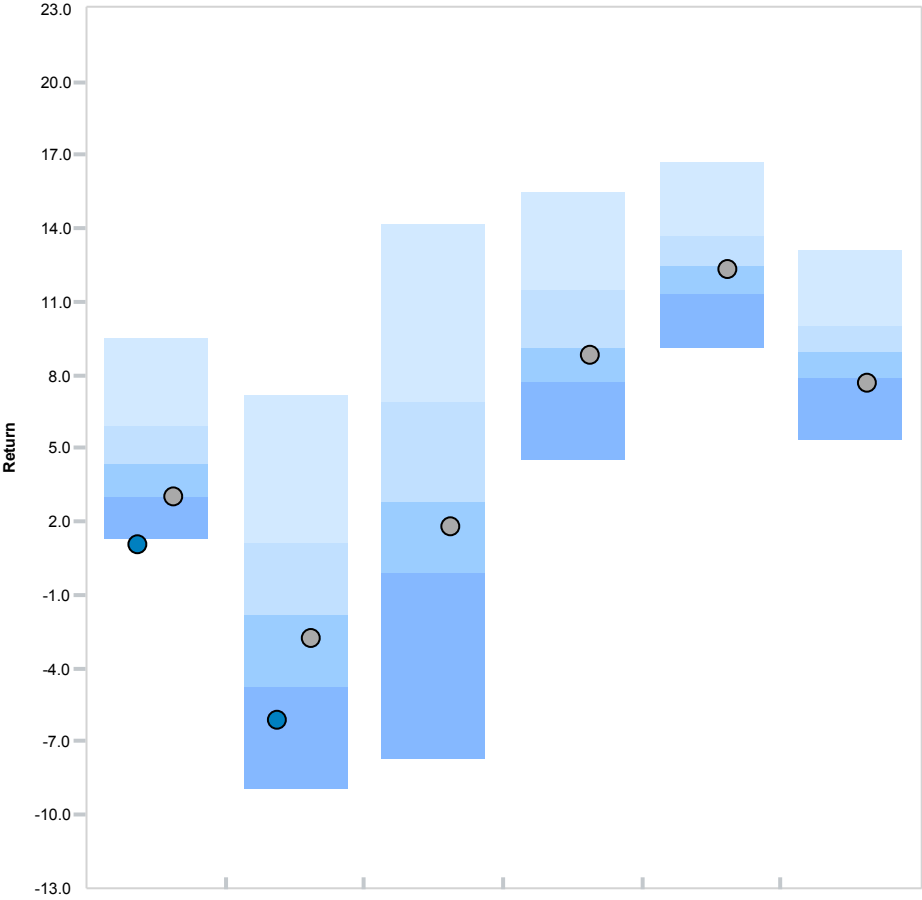


	Mutual of America Equity	S&P MidCap 400 Index
Actual Correlation	1.00	1.00
Information Ratio	-0.56	N/A
R-Squared	1.00	1.00
Tracking Error	0.07	0.00

Benchmark: S&P MidCap 400 Index

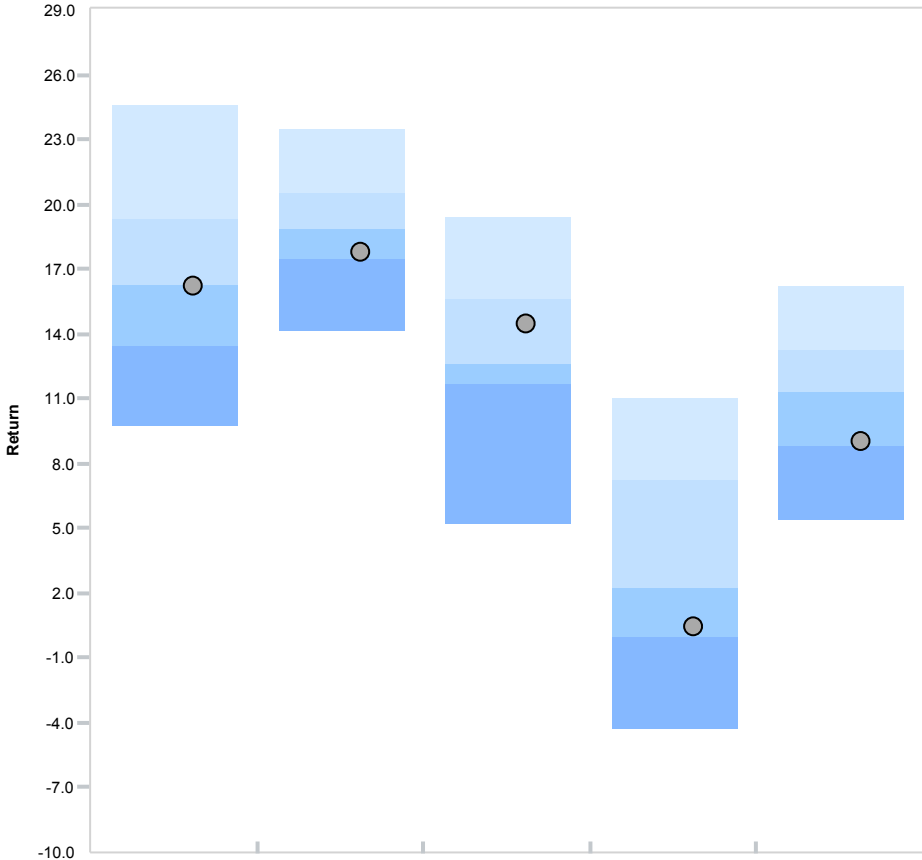


Plan Sponsor Peer Group Analysis vs. IM U.S. SMID Cap Core Equity (SA+CF)



	QTR	FYTD	1 YR	2 YR	3 YR	5 YR
● Investment	1.06 (98)	-6.15 (87)	N/A	N/A	N/A	N/A
● Index	2.96 (79)	-2.80 (68)	1.77 (68)	8.76 (57)	12.34 (63)	7.66 (86)
Median	4.37	-1.82	2.80	9.09	12.49	8.92

Plan Sponsor Peer Group Analysis vs. IM U.S. SMID Cap Core Equity (SA+CF)



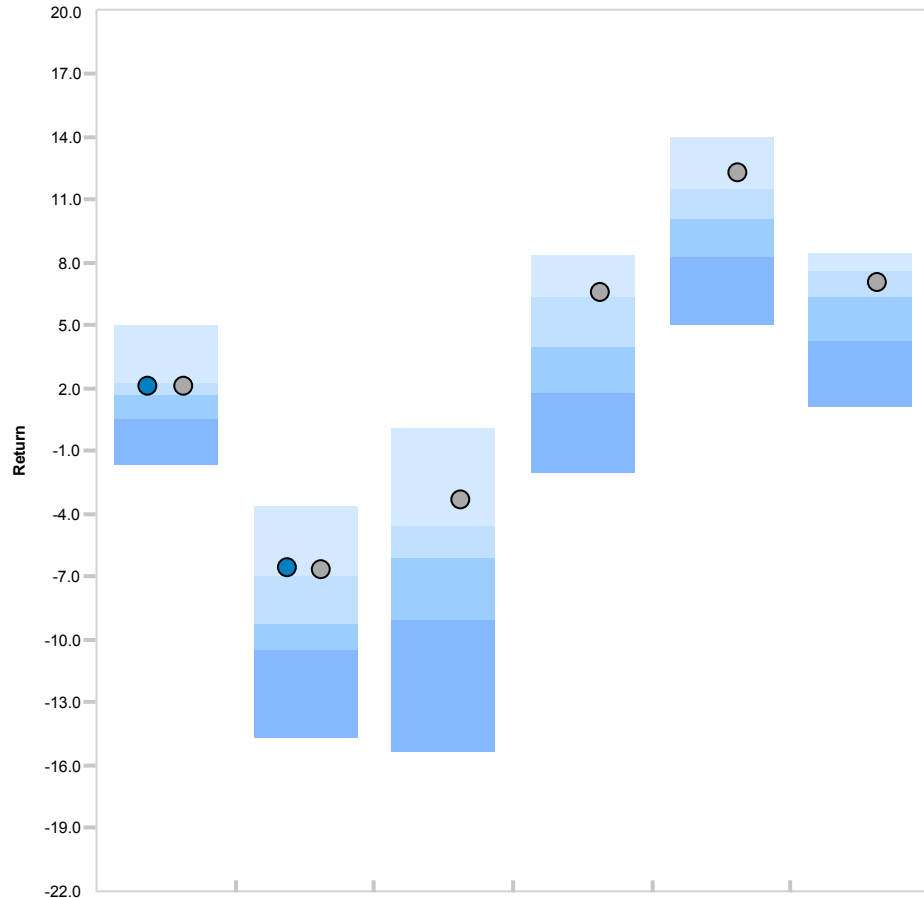
	4 Quarters Ending Sep-2018	4 Quarters Ending Sep-2017	4 Quarters Ending Sep-2016	4 Quarters Ending Sep-2015	4 Quarters Ending Sep-2014
● Investment	N/A	N/A	N/A	N/A	N/A
● Index	16.19 (57)	17.79 (71)	14.44 (35)	0.38 (74)	8.97 (72)
Median	16.28	18.86	12.61	2.28	11.29

Comparative Performance

	1 Qtr Ending Mar-2019	1 Qtr Ending Dec-2018	1 Qtr Ending Sep-2018	1 Qtr Ending Jun-2018	1 Qtr Ending Mar-2018	1 Qtr Ending Dec-2017
Investment	12.63 (89)	-17.55 (40)	N/A	N/A	N/A	N/A
Index	15.82 (28)	-18.49 (64)	4.70 (55)	5.71 (33)	-0.24 (65)	5.24 (56)
Median	15.02	-18.23	4.80	4.67	0.17	5.46

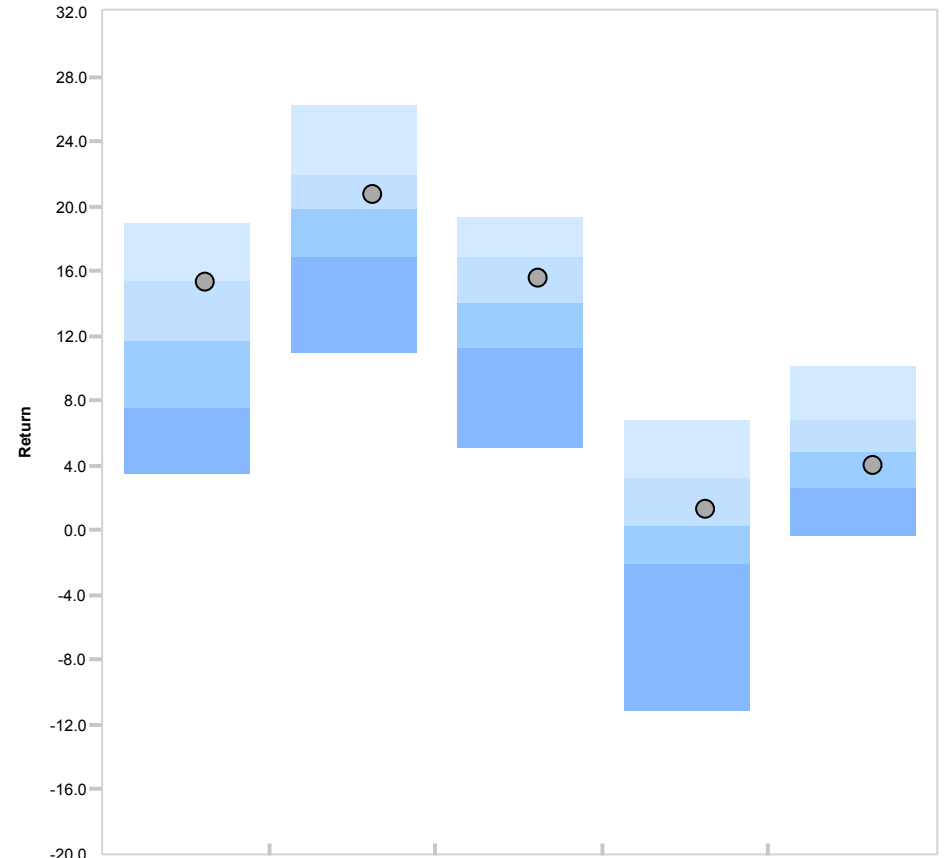


Plan Sponsor Peer Group Analysis vs. IM U.S. Small Cap Core Equity (MF)



	QTR	FYTD	1 YR	2 YR	3 YR	5 YR
Investment	2.12 (30)	-6.59 (22)	N/A	N/A	N/A	N/A
Index	2.10 (30)	-6.65 (22)	-3.31 (15)	6.62 (19)	12.30 (12)	7.06 (39)
Median	1.67	-9.22	-6.11	3.99	10.05	6.35

Plan Sponsor Peer Group Analysis vs. IM U.S. Small Cap Core Equity (MF)



	4 Quarters Ending Sep-2018	4 Quarters Ending Sep-2017	4 Quarters Ending Sep-2016	4 Quarters Ending Sep-2015	4 Quarters Ending Sep-2014
Investment	N/A	N/A	N/A	N/A	N/A
Index	15.24 (27)	20.74 (34)	15.47 (36)	1.25 (43)	3.93 (64)
Median	11.73	19.78	14.04	0.31	4.78

Comparative Performance

	1 Qtr Ending Mar-2019	1 Qtr Ending Dec-2018	1 Qtr Ending Sep-2018	1 Qtr Ending Jun-2018	1 Qtr Ending Mar-2018	1 Qtr Ending Dec-2017
Investment	14.59 (14)	-20.18 (51)	N/A	N/A	N/A	N/A
Index	14.58 (14)	-20.20 (53)	3.58 (30)	7.75 (45)	-0.08 (30)	3.34 (38)
Median	11.60	-20.17	2.78	7.57	-0.57	3.01



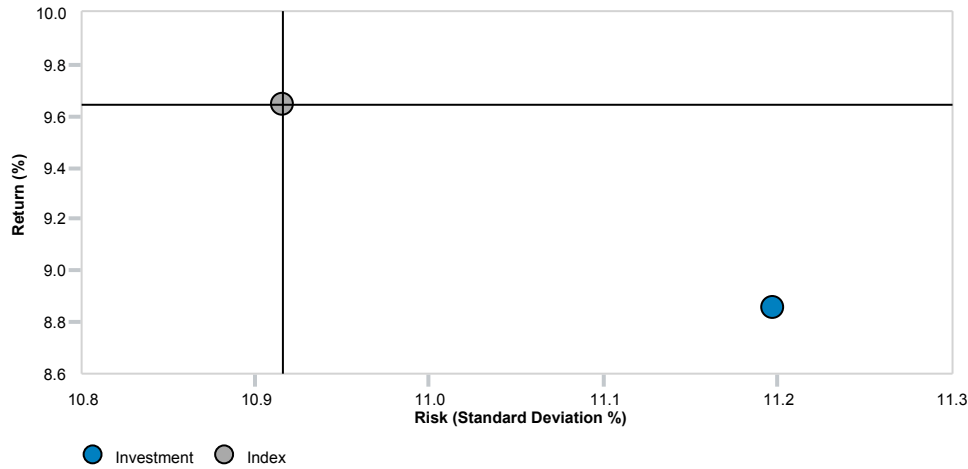
Historical Statistics 3 Years

	Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters
Investment	8.85	11.20	0.69	95.89	8	98.55	4
Index	9.65	10.92	0.77	100.00	8	100.00	4

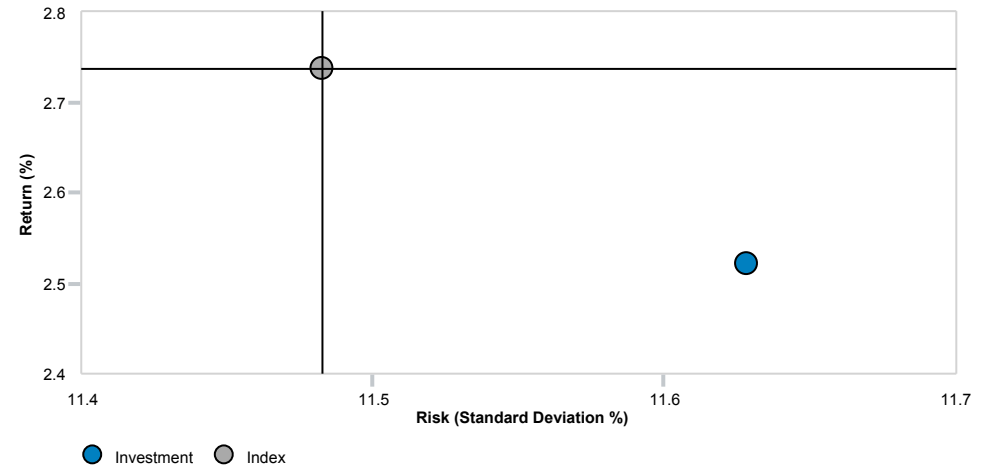
Historical Statistics 5 Years

	Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters
Investment	2.52	11.63	0.20	99.10	11	101.20	9
Index	2.74	11.48	0.22	100.00	11	100.00	9

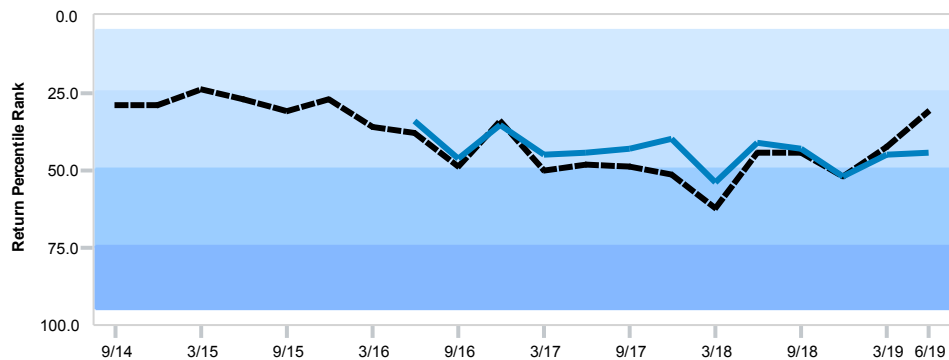
Risk and Return 3 Years



Risk and Return 5 Years

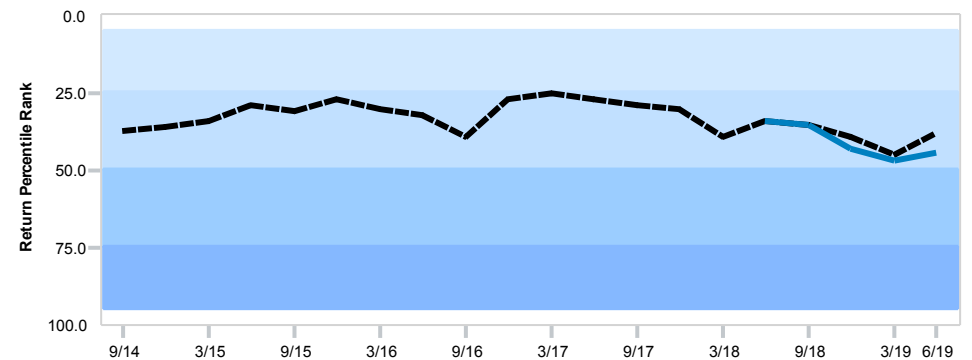


3 Year Rolling Percentile Rank IM International Equity (MF)



	Total Period	5-25 Count	25-Median Count	Median-75 Count	75-95 Count
Investment	13	0 (0%)	11 (85%)	2 (15%)	0 (0%)
Index	20	1 (5%)	16 (80%)	3 (15%)	0 (0%)

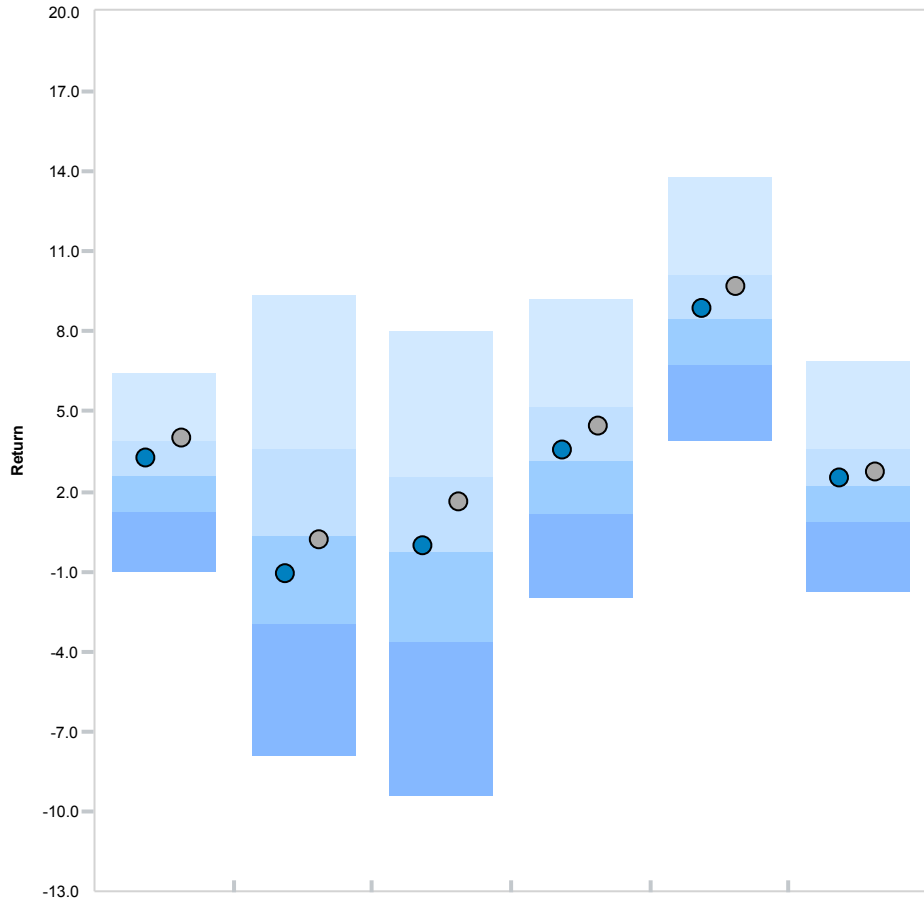
5 Year Rolling Percentile Rank IM International Equity (MF)



	Total Period	5-25 Count	25-Median Count	Median-75 Count	75-95 Count
Investment	5	0 (0%)	5 (100%)	0 (0%)	0 (0%)
Index	20	1 (5%)	19 (95%)	0 (0%)	0 (0%)

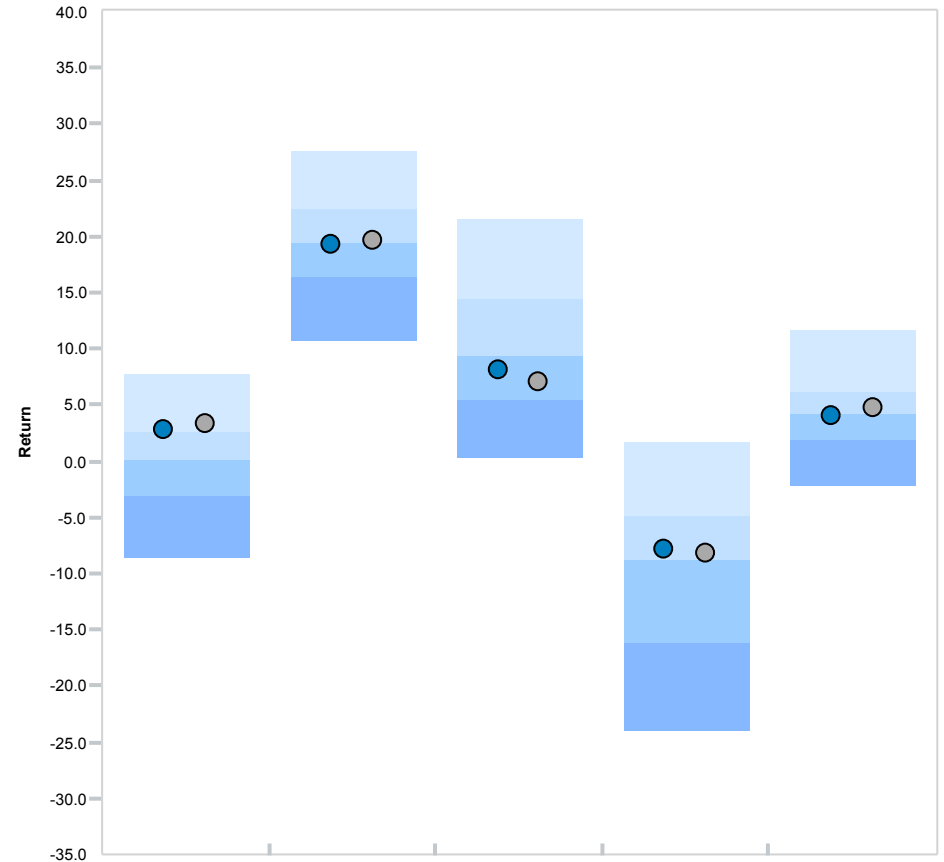


Plan Sponsor Peer Group Analysis vs. IM International Equity (MF)



	QTR	FYTD	1 YR	2 YR	3 YR	5 YR
● Investment	3.27 (38)	-1.10 (63)	-0.02 (48)	3.55 (45)	8.85 (44)	2.52 (44)
● Index	3.97 (25)	0.18 (52)	1.60 (32)	4.45 (33)	9.65 (31)	2.74 (38)
Median	2.58	0.31	-0.27	3.19	8.44	2.22

Plan Sponsor Peer Group Analysis vs. IM International Equity (MF)



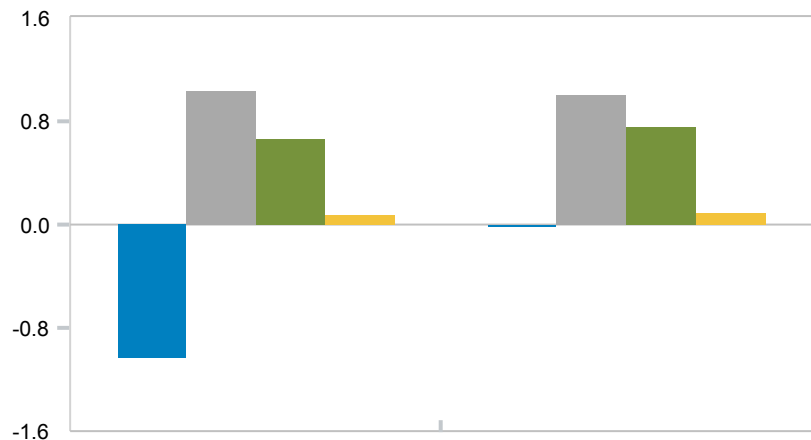
	4 Quarters Ending Sep-2018	4 Quarters Ending Sep-2017	4 Quarters Ending Sep-2016	4 Quarters Ending Sep-2015	4 Quarters Ending Sep-2014
● Investment	2.78 (24)	19.25 (52)	8.03 (59)	-7.90 (45)	4.01 (54)
● Index	3.25 (21)	19.65 (48)	7.06 (65)	-8.27 (47)	4.70 (44)
Median	0.08	19.36	9.33	-8.76	4.27

Comparative Performance

	1 Qtr Ending Mar-2019	1 Qtr Ending Dec-2018	1 Qtr Ending Sep-2018	1 Qtr Ending Jun-2018	1 Qtr Ending Mar-2018	1 Qtr Ending Dec-2017
Investment	10.16 (58)	-13.06 (61)	1.09 (24)	-1.59 (26)	-1.09 (74)	4.45 (54)
Index	10.13 (59)	-12.50 (53)	1.42 (17)	-0.97 (18)	-1.41 (81)	4.27 (58)
Median	10.53	-12.23	-0.27	-3.33	-0.07	4.67

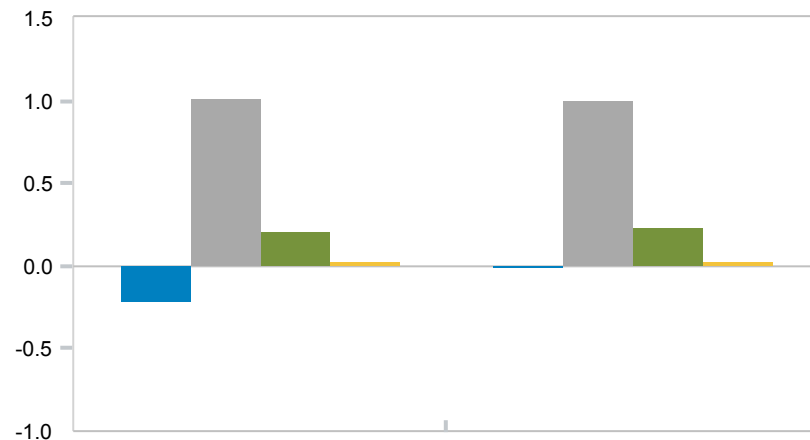


Risk / Reward Historical Statistics 3 Years Ending June 30, 2019



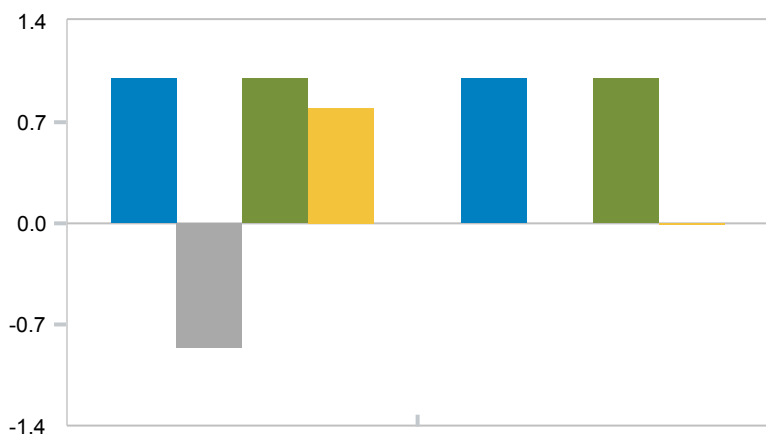
	Vanguard Intl Eq (VTMGX)	MSCI EAFE Index
Alpha	-1.04	0.00
Beta	1.03	1.00
Sharpe Ratio	0.66	0.75
Treynor Ratio	0.08	0.09

Risk / Reward Historical Statistics 5 Years Ending June 30, 2019



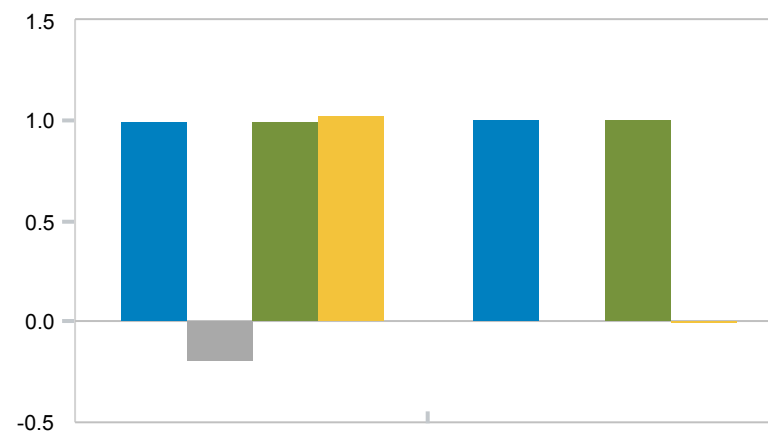
	Vanguard Intl Eq (VTMGX)	MSCI EAFE Index
Alpha	-0.22	0.00
Beta	1.01	1.00
Sharpe Ratio	0.20	0.22
Treynor Ratio	0.02	0.03

Benchmark Relative Historical Statistics 3 Years Ending June 30, 2019



	Vanguard Intl Eq (VTMGX)	MSCI EAFE Index
Actual Correlation	1.00	1.00
Information Ratio	-0.87	N/A
R-Squared	1.00	1.00
Tracking Error	0.80	0.00

Benchmark Relative Historical Statistics 5 Years Ending June 30, 2019



	Vanguard Intl Eq (VTMGX)	MSCI EAFE Index
Actual Correlation	1.00	1.00
Information Ratio	-0.19	N/A
R-Squared	0.99	1.00
Tracking Error	1.02	0.00

Benchmark: MSCI EAFE Index



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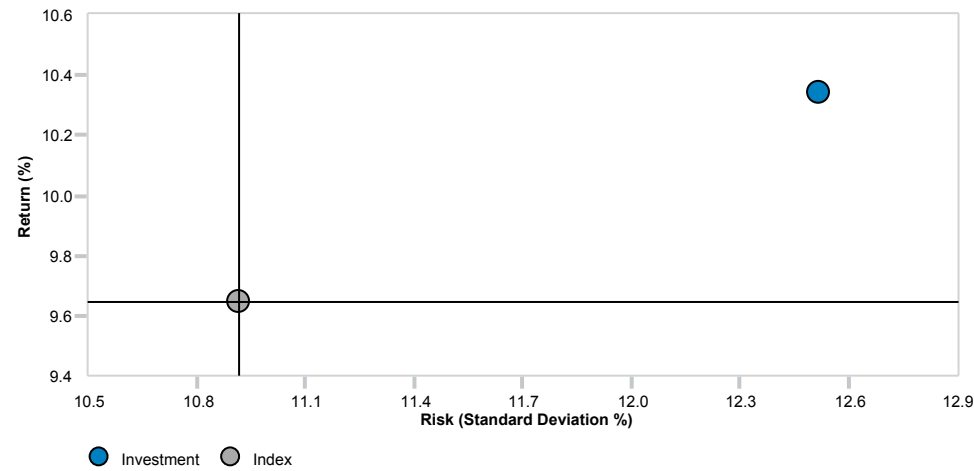
Historical Statistics 3 Years

	Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters
Investment	10.34	12.52	0.74	108.27	7	108.17	5
Index	9.65	10.92	0.77	100.00	8	100.00	4

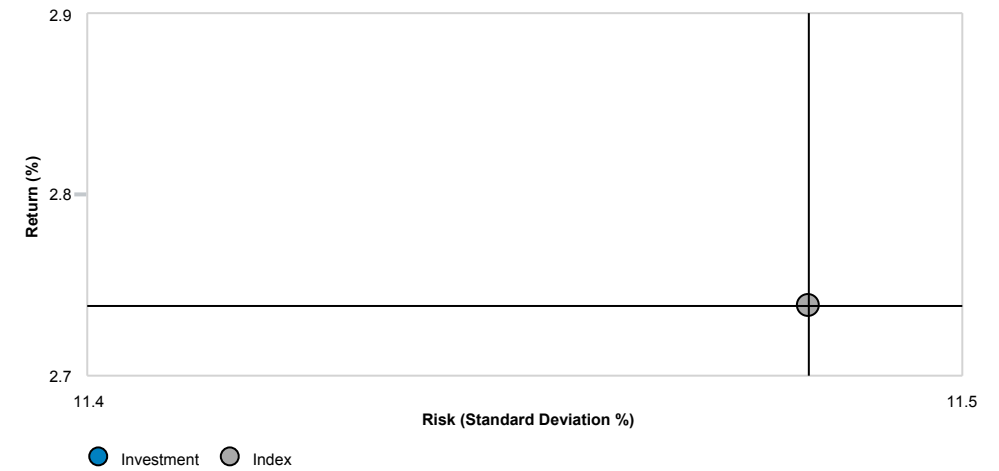
Historical Statistics 5 Years

	Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters
Investment	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Index	2.74	11.48	0.22	100.00	11	100.00	9

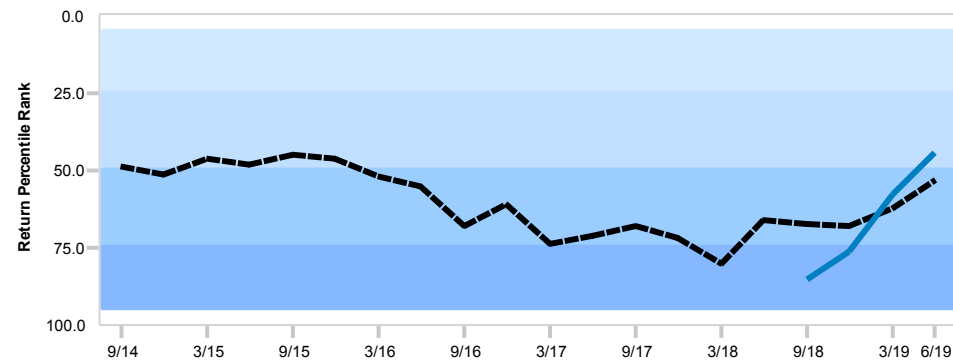
Risk and Return 3 Years



Risk and Return 5 Years

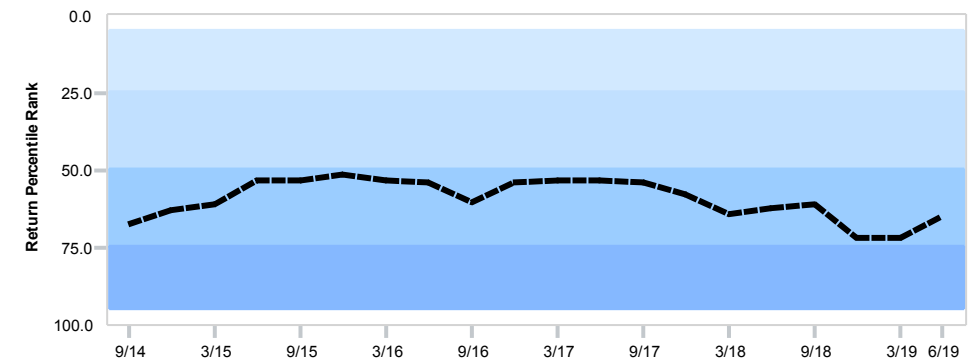


3 Year Rolling Percentile Rank IM International Equity (SA+CF)



	Total Period	5-25 Count	25-Median Count	Median-75 Count	75-95 Count
Investment	4	0 (0%)	1 (25%)	1 (25%)	2 (50%)
Index	20	0 (0%)	5 (25%)	14 (70%)	1 (5%)

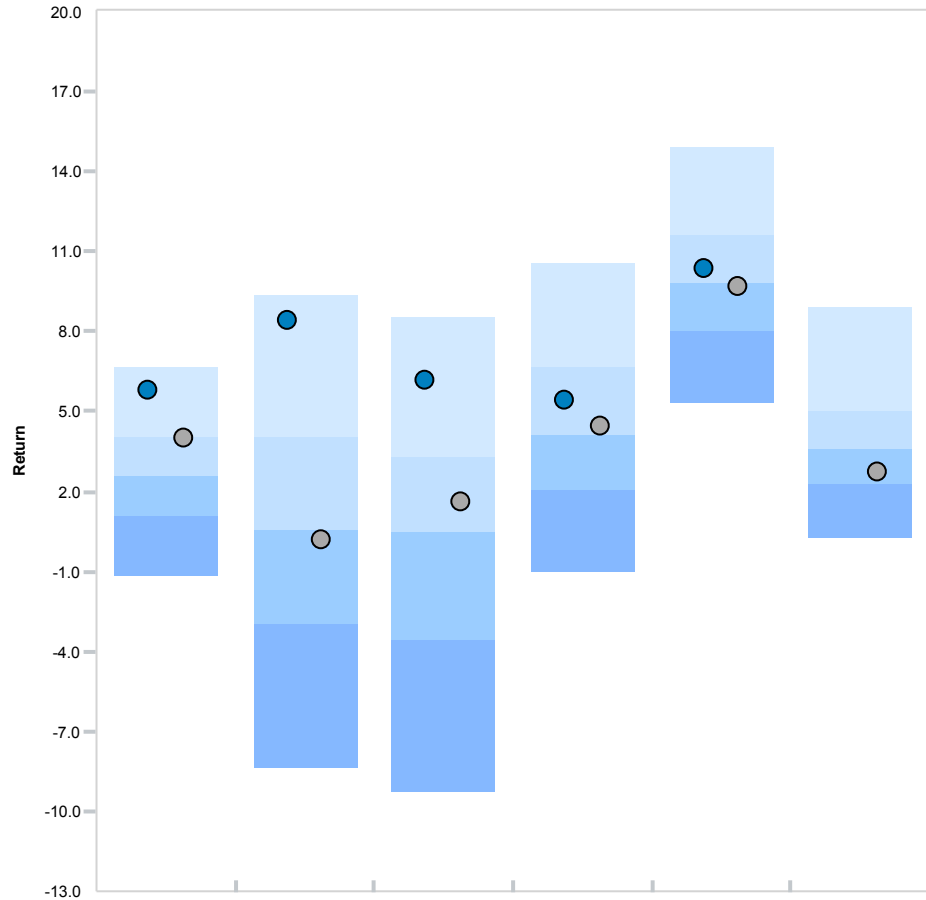
5 Year Rolling Percentile Rank IM International Equity (SA+CF)



	Total Period	5-25 Count	25-Median Count	Median-75 Count	75-95 Count
Investment	0	0	0	0	0
Index	20	0 (0%)	0 (0%)	20 (100%)	0 (0%)

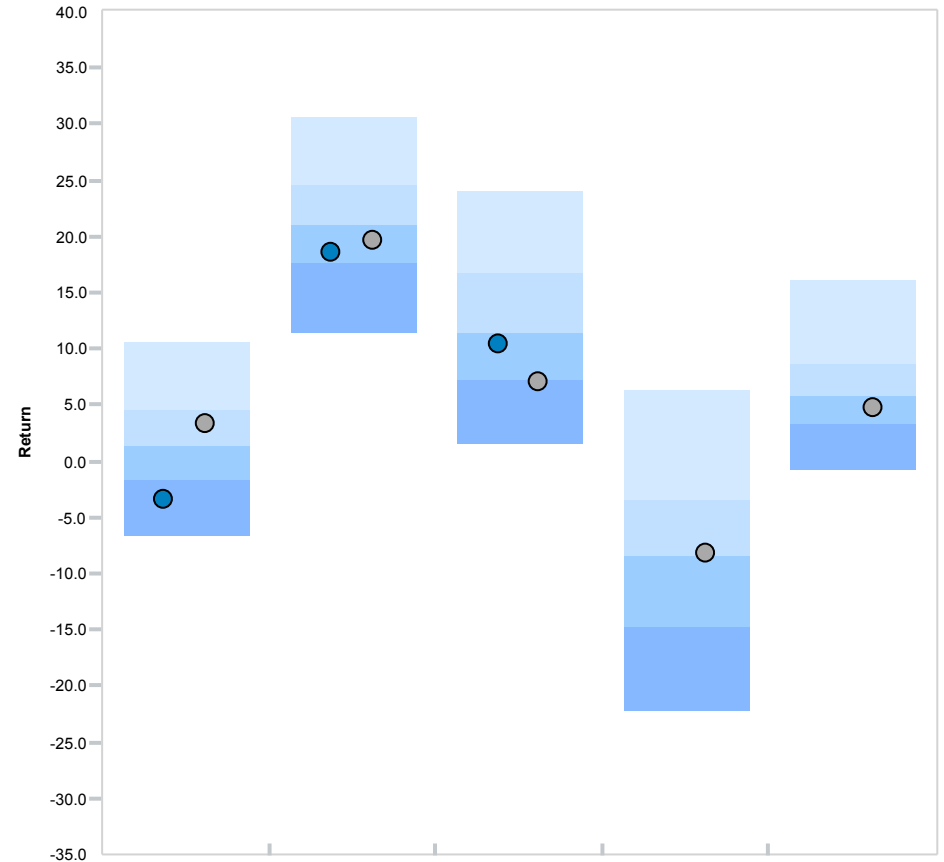


Plan Sponsor Peer Group Analysis vs. IM International Equity (SA+CF)



	QTR	FYTD	1 YR	2 YR	3 YR	5 YR
Investment	5.79 (10)	8.42 (7)	6.15 (11)	5.45 (35)	10.34 (44)	N/A
Index	3.97 (27)	0.18 (54)	1.60 (40)	4.45 (48)	9.65 (53)	2.74 (65)
Median	2.58	0.57	0.47	4.17	9.83	3.59

Plan Sponsor Peer Group Analysis vs. IM International Equity (SA+CF)



	4 Quarters Ending Sep-2018	4 Quarters Ending Sep-2017	4 Quarters Ending Sep-2016	4 Quarters Ending Sep-2015	4 Quarters Ending Sep-2014
Investment	-3.43 (85)	18.60 (70)	10.45 (56)	N/A	N/A
Index	3.25 (33)	19.65 (61)	7.06 (77)	-8.27 (50)	4.70 (63)
Median	1.39	21.01	11.49	-8.38	5.80

Comparative Performance

	1 Qtr Ending Mar-2019	1 Qtr Ending Dec-2018	1 Qtr Ending Sep-2018	1 Qtr Ending Jun-2018	1 Qtr Ending Mar-2018	1 Qtr Ending Dec-2017
Investment	13.56 (15)	-9.75 (35)	-2.10 (76)	-3.67 (62)	-1.67 (81)	4.14 (73)
Index	10.13 (58)	-12.50 (55)	1.42 (25)	-0.97 (26)	-1.41 (77)	4.27 (70)
Median	10.54	-11.81	0.11	-2.65	-0.09	5.53



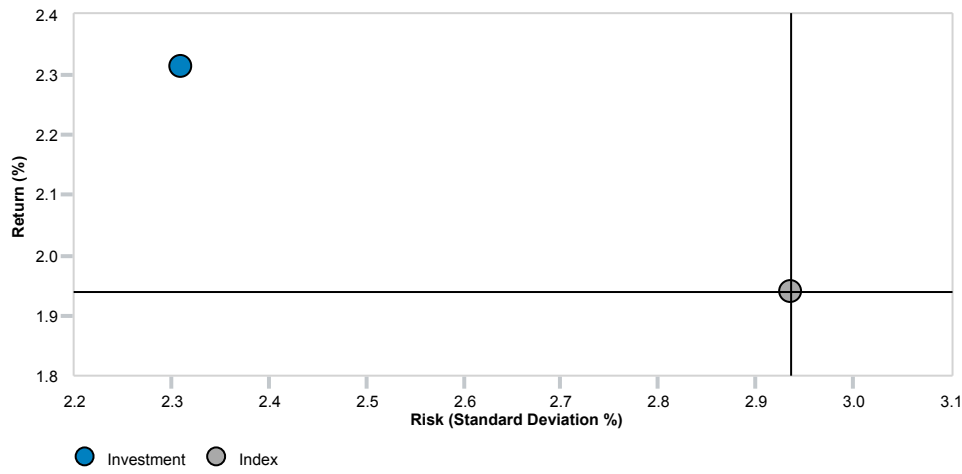
Historical Statistics 3 Years

	Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters
Investment	2.31	2.31	0.43	84.40	9	61.87	3
Index	1.94	2.94	0.21	100.00	9	100.00	3

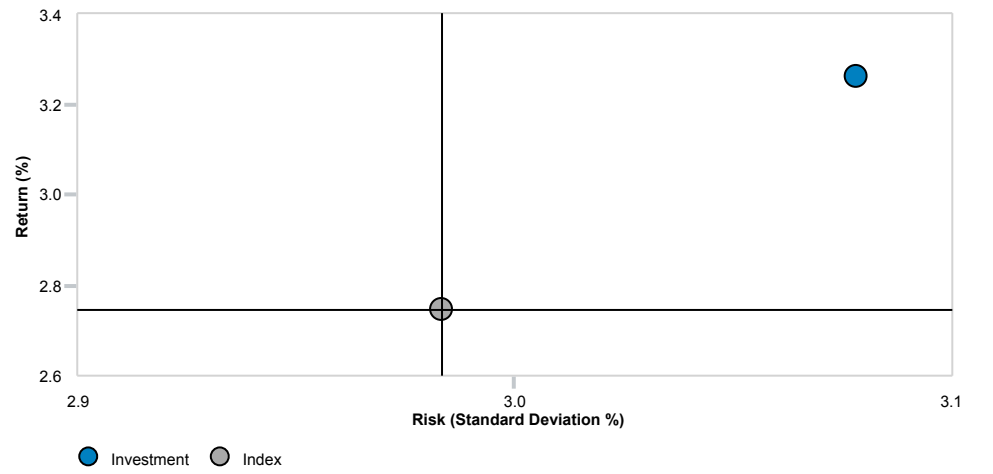
Historical Statistics 5 Years

	Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters
Investment	3.26	3.08	0.79	111.16	15	95.87	5
Index	2.75	2.98	0.66	100.00	15	100.00	5

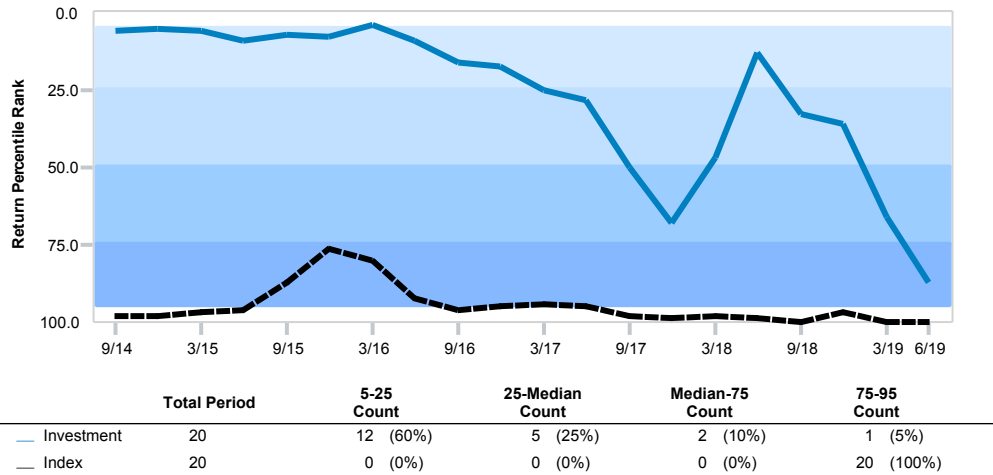
Risk and Return 3 Years



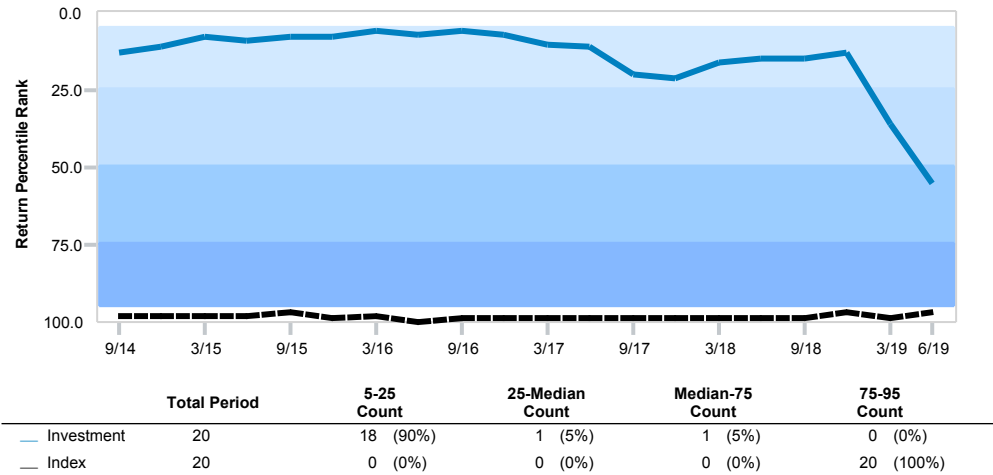
Risk and Return 5 Years



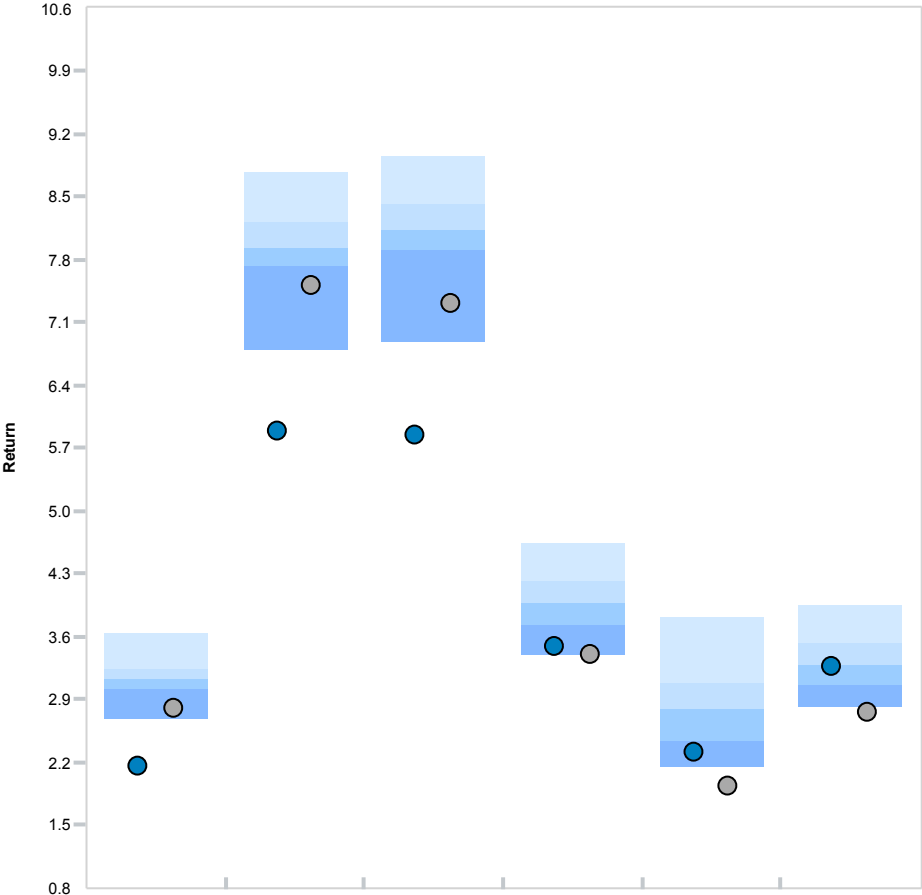
3 Year Rolling Percentile Rank IM U.S. Broad Market Core Fixed Income (SA+CF)



5 Year Rolling Percentile Rank IM U.S. Broad Market Core Fixed Income (SA+CF)

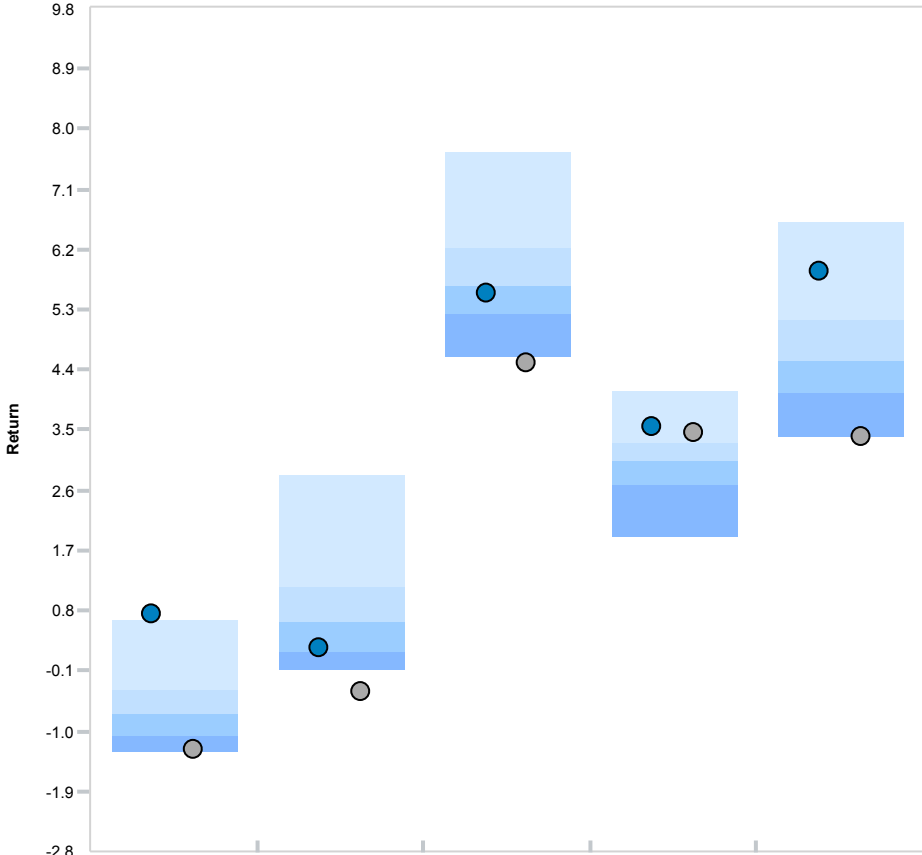


Plan Sponsor Peer Group Analysis vs. IM U.S. Broad Market Core Fixed Income (SA+CF)



	QTR	FYTD	1 YR	2 YR	3 YR	5 YR
● Investment	2.15 (98)	5.88 (98)	5.84 (98)	3.50 (94)	2.31 (87)	3.26 (55)
● Index	2.81 (94)	7.51 (88)	7.32 (94)	3.40 (95)	1.94 (100)	2.75 (97)
Median	3.14	7.93	8.12	3.98	2.79	3.29

Plan Sponsor Peer Group Analysis vs. IM U.S. Broad Market Core Fixed Income (SA+CF)



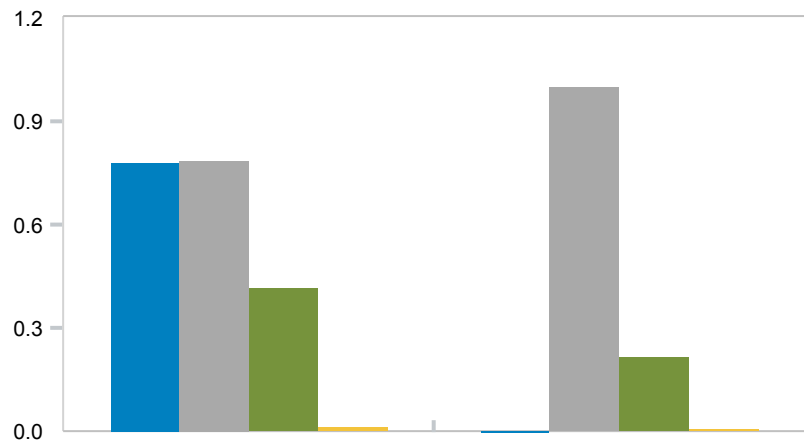
	4 Quarters Ending Sep-2018	4 Quarters Ending Sep-2017	4 Quarters Ending Sep-2016	4 Quarters Ending Sep-2015	4 Quarters Ending Sep-2014
● Investment	0.74 (4)	0.23 (71)	5.53 (62)	3.53 (12)	5.87 (12)
● Index	-1.28 (95)	-0.42 (100)	4.50 (96)	3.44 (17)	3.39 (96)
Median	-0.74	0.62	5.67	3.02	4.51

Comparative Performance

	1 Qtr Ending Mar-2019	1 Qtr Ending Dec-2018	1 Qtr Ending Sep-2018	1 Qtr Ending Jun-2018	1 Qtr Ending Mar-2018	1 Qtr Ending Dec-2017
Investment	2.25 (99)	1.37 (53)	-0.04 (91)	0.56 (2)	-0.60 (6)	0.82 (9)
Index	2.49 (96)	2.03 (8)	-0.18 (95)	0.00 (28)	-1.35 (46)	0.26 (95)
Median	3.22	1.40	0.18	-0.09	-1.37	0.51

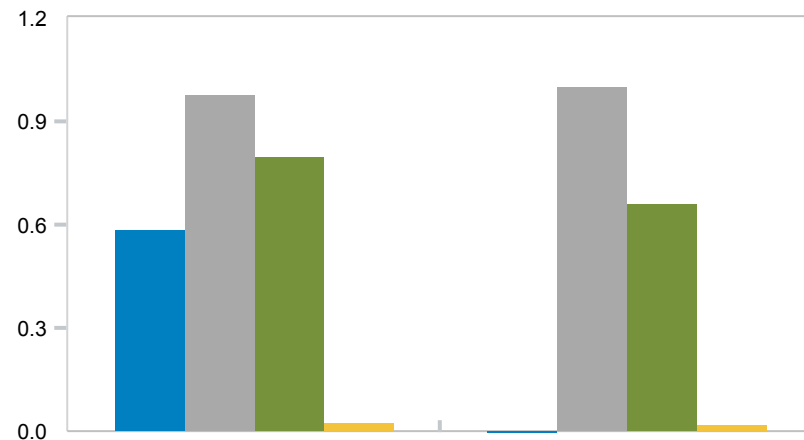


Risk / Reward Historical Statistics 3 Years Ending June 30, 2019



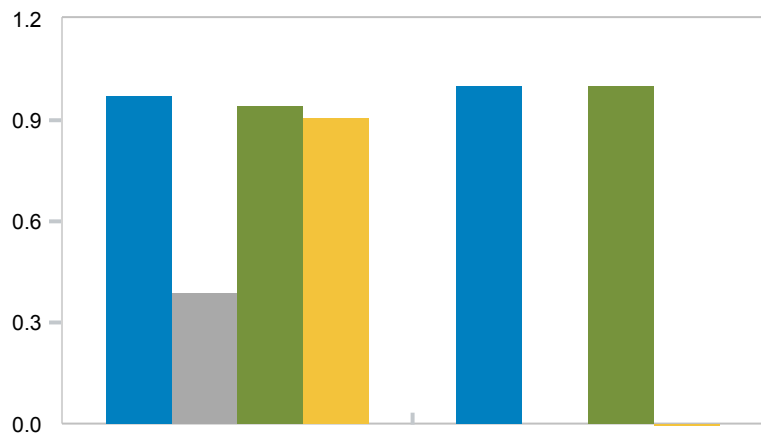
	GHA A+ Fixed Income	Blmbg. Barc. U.S. Aggregate: A+
Alpha	0.78	0.00
Beta	0.78	1.00
Sharpe Ratio	0.42	0.21
Treynor Ratio	0.01	0.01

Risk / Reward Historical Statistics 5 Years Ending June 30, 2019



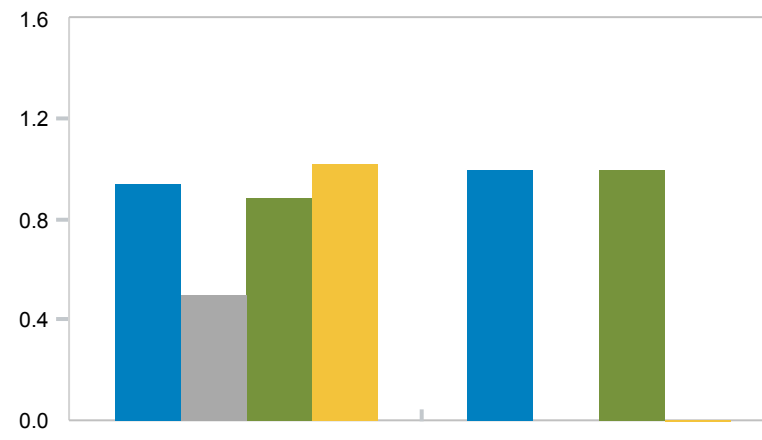
	GHA A+ Fixed Income	Blmbg. Barc. U.S. Aggregate: A+
Alpha	0.58	0.00
Beta	0.97	1.00
Sharpe Ratio	0.79	0.66
Treynor Ratio	0.02	0.02

Benchmark Relative Historical Statistics 3 Years Ending June 30, 2019



	GHA A+ Fixed Income	Blmbg. Barc. U.S. Aggregate: A+
Actual Correlation	0.97	1.00
Information Ratio	0.39	N/A
R-Squared	0.94	1.00
Tracking Error	0.91	0.00

Benchmark Relative Historical Statistics 5 Years Ending June 30, 2019



	GHA A+ Fixed Income	Blmbg. Barc. U.S. Aggregate: A+
Actual Correlation	0.94	1.00
Information Ratio	0.50	N/A
R-Squared	0.89	1.00
Tracking Error	1.02	0.00

Benchmark: Blmbg. Barc. U.S. Aggregate: A+



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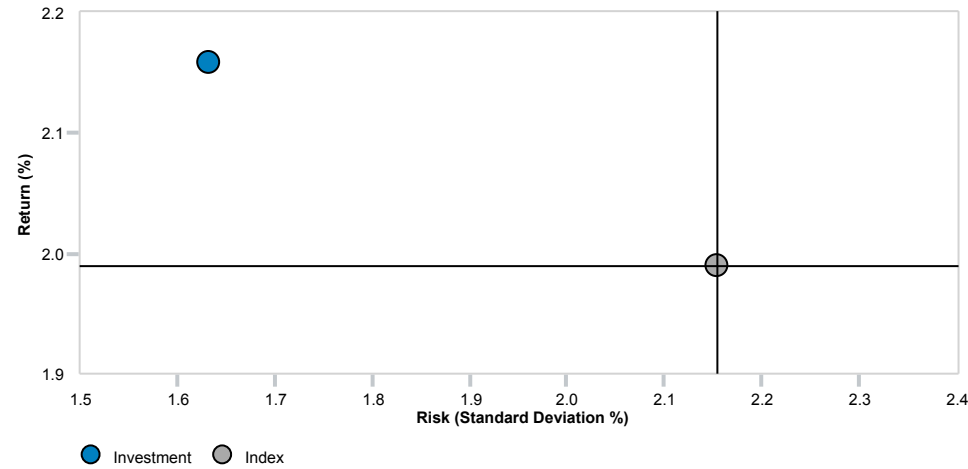
Historical Statistics 3 Years

	Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters
Investment	2.16	1.63	0.52	81.49	10	54.37	2
Index	1.99	2.15	0.31	100.00	9	100.00	3

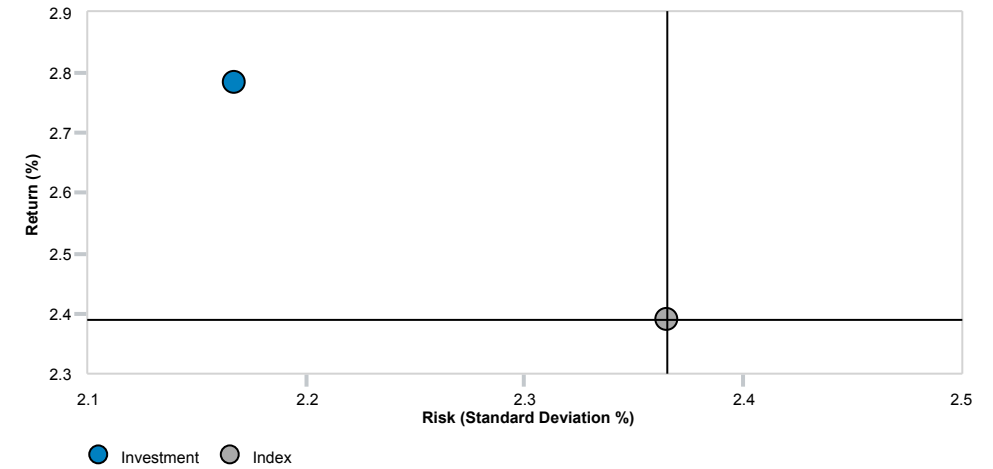
Historical Statistics 5 Years

	Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters
Investment	2.78	2.17	0.91	103.77	16	72.31	4
Index	2.39	2.37	0.68	100.00	14	100.00	6

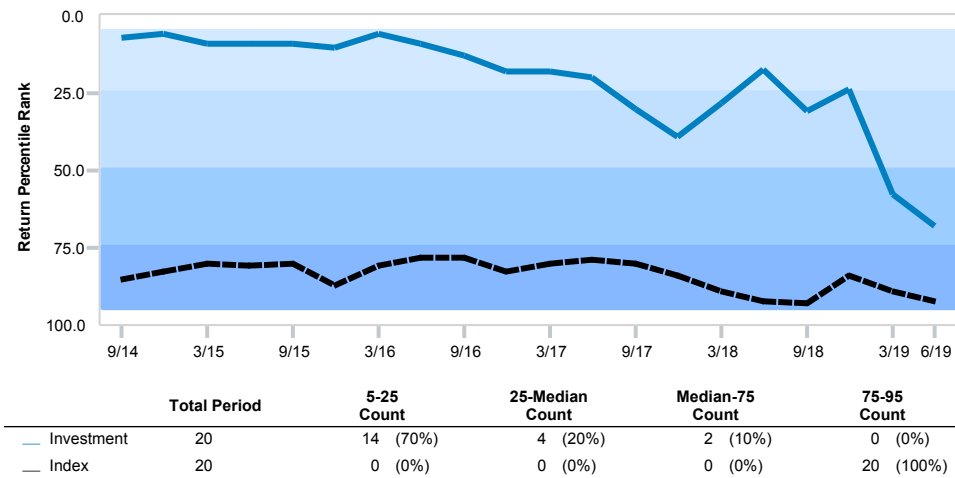
Risk and Return 3 Years



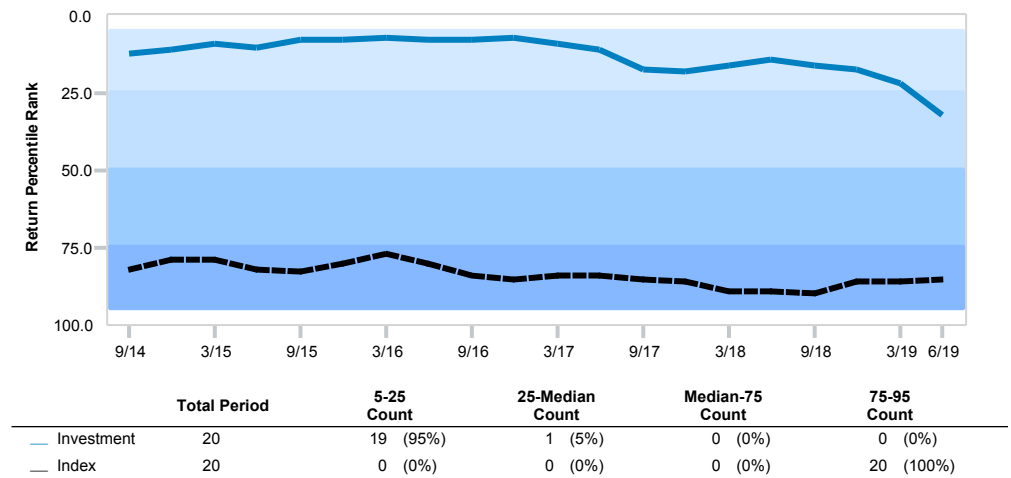
Risk and Return 5 Years



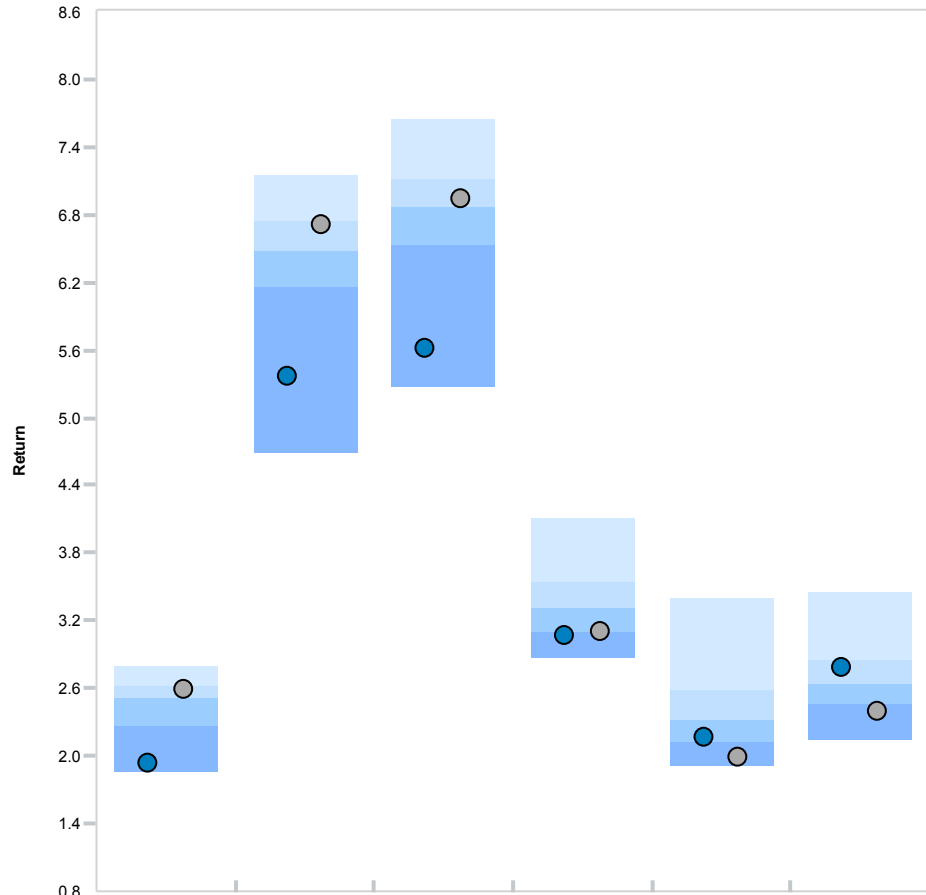
3 Year Rolling Percentile Rank IM U.S. Intermediate Duration (SA+CF)



5 Year Rolling Percentile Rank IM U.S. Intermediate Duration (SA+CF)

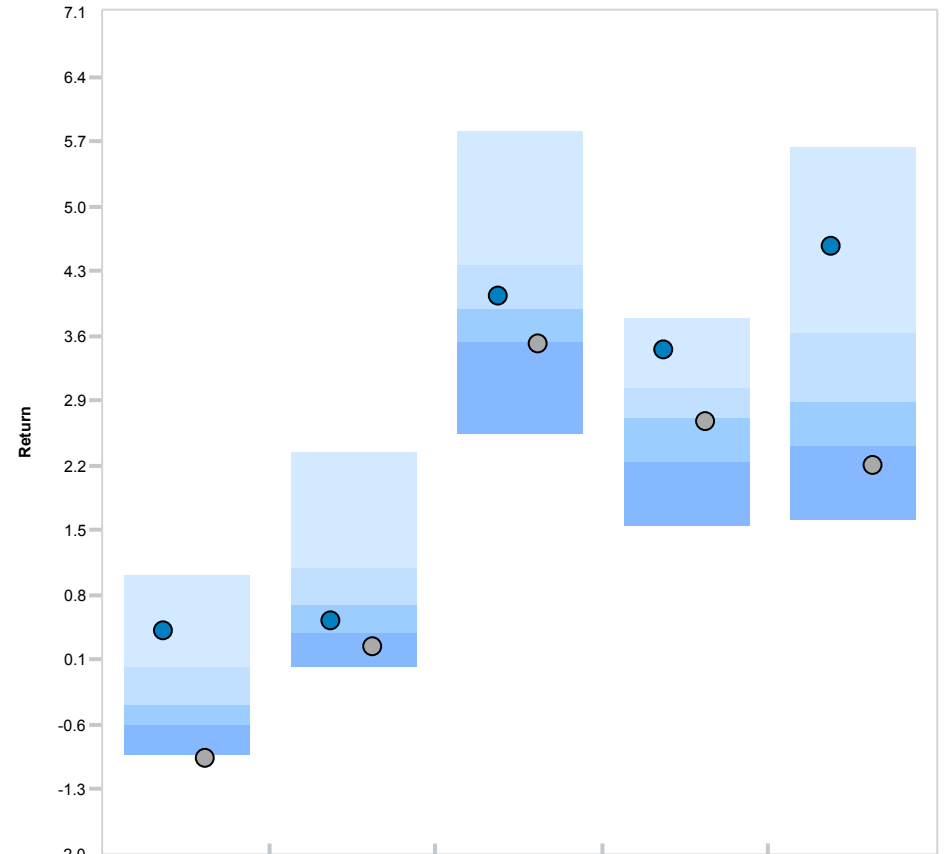


Plan Sponsor Peer Group Analysis vs. IM U.S. Intermediate Duration (SA+CF)



	QTR	FYTD	1 YR	2 YR	3 YR	5 YR
● Investment	1.94 (92)	5.36 (88)	5.61 (92)	3.07 (79)	2.16 (68)	2.78 (32)
● Index	2.59 (30)	6.70 (30)	6.93 (45)	3.11 (75)	1.99 (92)	2.39 (85)
Median	2.51	6.48	6.87	3.30	2.31	2.63

Plan Sponsor Peer Group Analysis vs. IM U.S. Intermediate Duration (SA+CF)



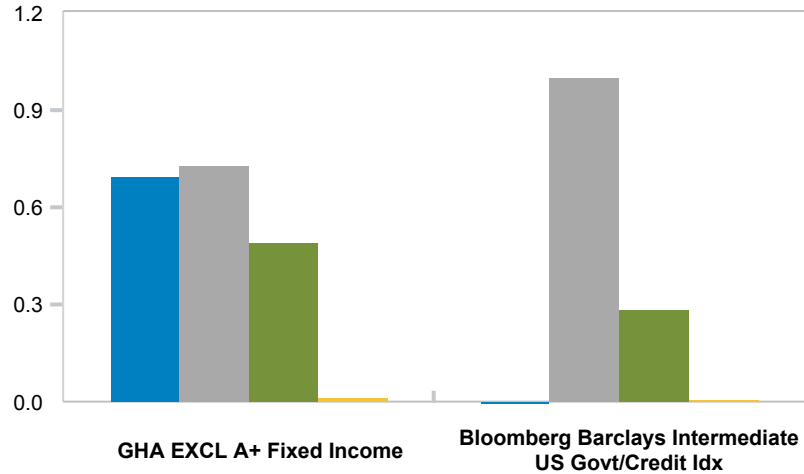
	4 Quarters Ending Sep-2018	4 Quarters Ending Sep-2017	4 Quarters Ending Sep-2016	4 Quarters Ending Sep-2015	4 Quarters Ending Sep-2014
● Investment	0.42 (13)	0.52 (67)	4.03 (42)	3.45 (7)	4.56 (11)
● Index	-0.96 (97)	0.23 (88)	3.52 (77)	2.68 (52)	2.20 (85)
Median	-0.38	0.69	3.90	2.70	2.88

Comparative Performance

	1 Qtr Ending Mar-2019	1 Qtr Ending Dec-2018	1 Qtr Ending Sep-2018	1 Qtr Ending Jun-2018	1 Qtr Ending Mar-2018	1 Qtr Ending Dec-2017
Investment	1.90 (91)	1.42 (44)	0.24 (79)	0.50 (4)	-0.50 (17)	0.17 (24)
Index	2.32 (68)	1.65 (22)	0.21 (85)	0.01 (86)	-0.98 (70)	-0.20 (94)
Median	2.45	1.39	0.37	0.12	-0.90	0.02

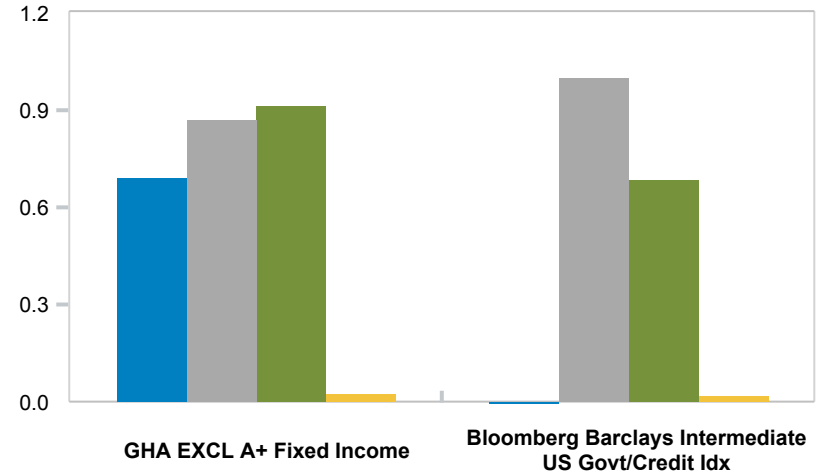


Risk / Reward Historical Statistics 3 Years Ending June 30, 2019



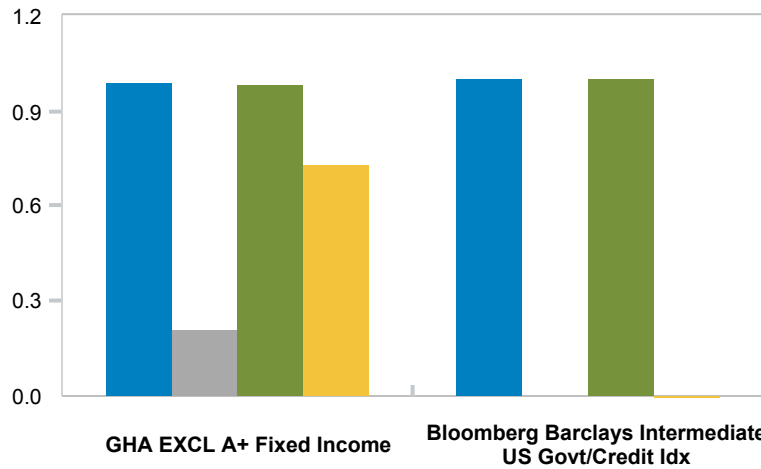
Alpha	0.69	0.00
Beta	0.73	1.00
Sharpe Ratio	0.49	0.28
Treynor Ratio	0.01	0.01

Risk / Reward Historical Statistics 5 Years Ending June 30, 2019



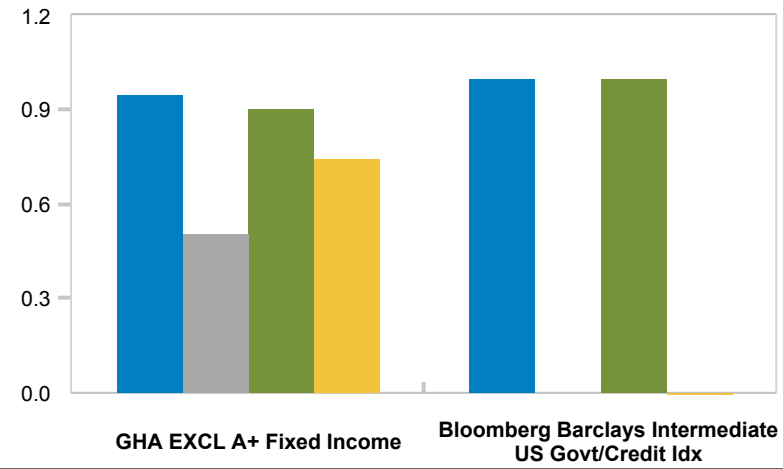
Alpha	0.69	0.00
Beta	0.87	1.00
Sharpe Ratio	0.91	0.68
Treynor Ratio	0.02	0.02

Benchmark Relative Historical Statistics 3 Years Ending June 30, 2019



Actual Correlation	0.99	1.00
Information Ratio	0.21	N/A
R-Squared	0.98	1.00
Tracking Error	0.73	0.00

Benchmark Relative Historical Statistics 5 Years Ending June 30, 2019



Actual Correlation	0.95	1.00
Information Ratio	0.51	N/A
R-Squared	0.90	1.00
Tracking Error	0.75	0.00

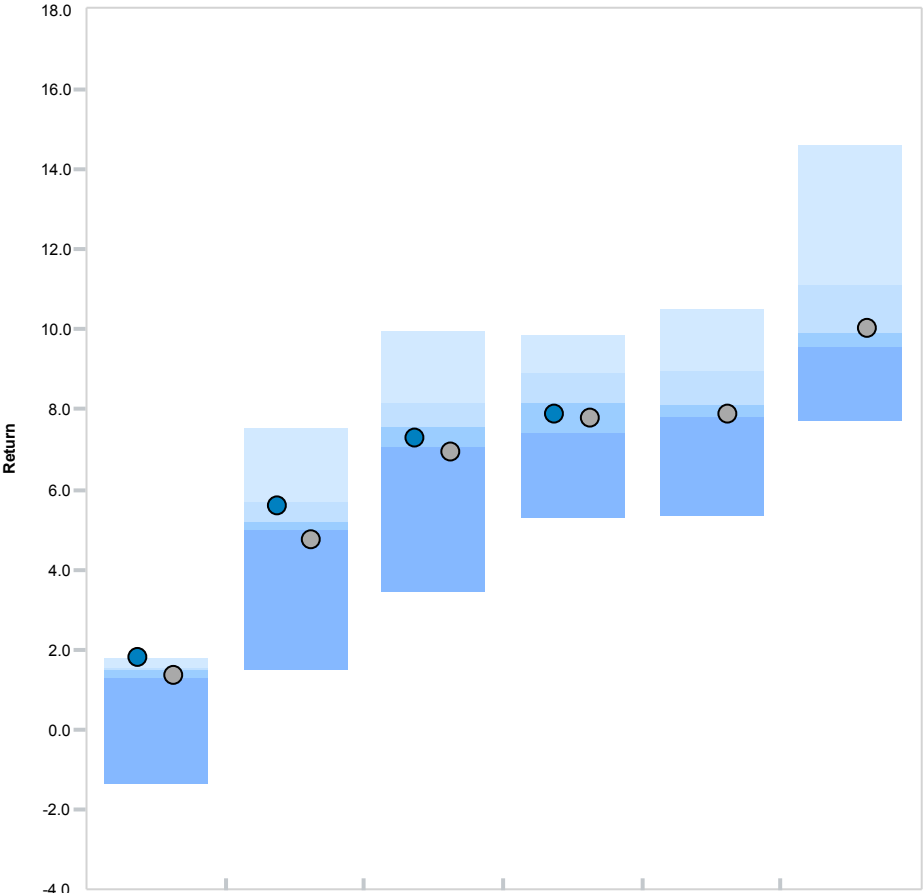
Benchmark: Bloomberg Barclays Intermediate US Govt/Credit Idx



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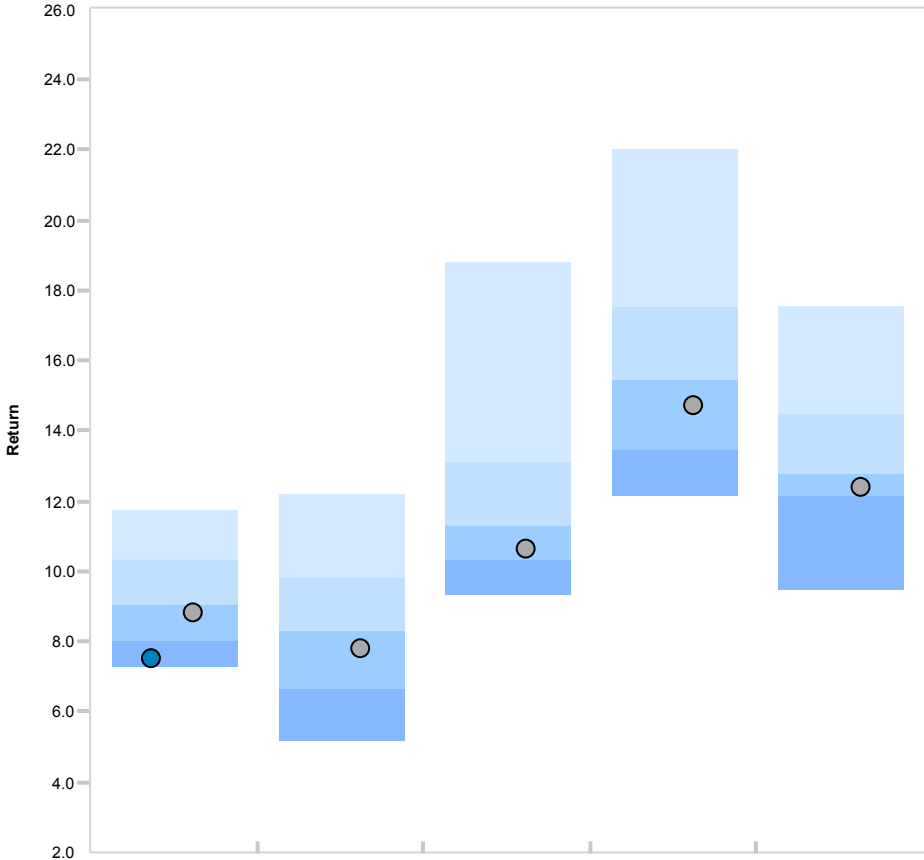


Plan Sponsor Peer Group Analysis vs. IM U.S. Open End Private Real Estate (SA+CF)



	QTR	FYTD	1 YR	2 YR	3 YR	5 YR
● Investment	1.79 (9)	5.59 (30)	7.27 (70)	7.85 (68)	N/A	N/A
● Index	1.35 (70)	4.73 (85)	6.91 (81)	7.76 (71)	7.88 (72)	10.03 (48)
Median	1.48	5.18	7.59	8.15	8.14	9.91

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



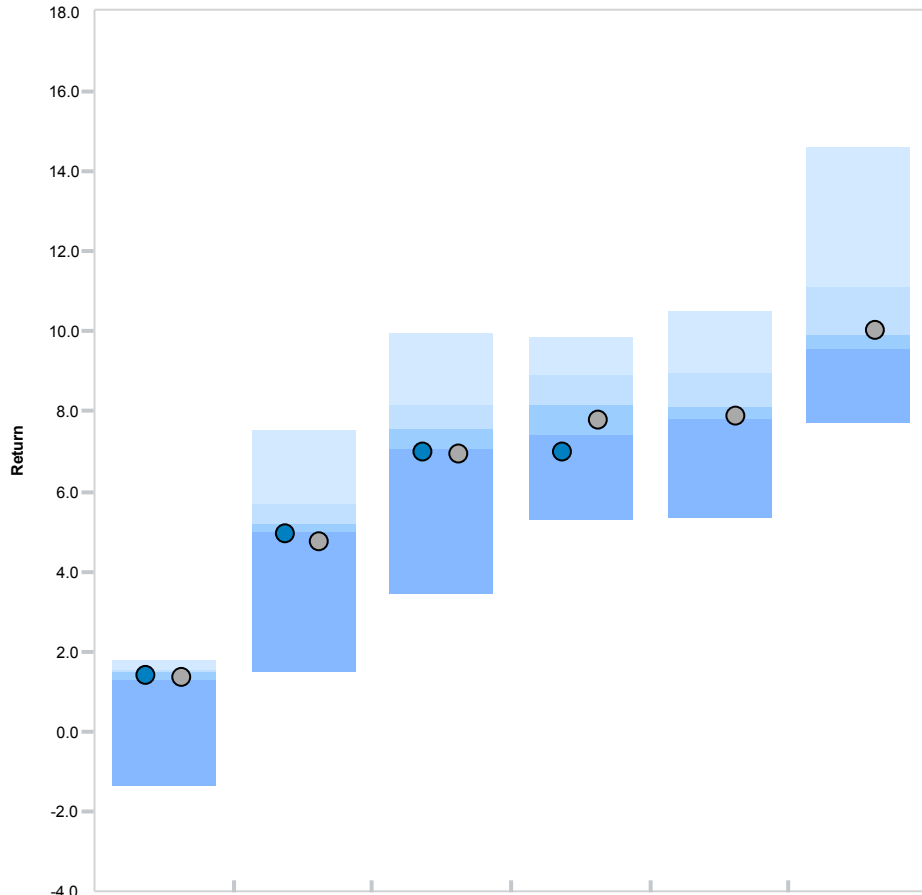
	4 Quarters Ending Sep-2018	4 Quarters Ending Sep-2017	4 Quarters Ending Sep-2016	4 Quarters Ending Sep-2015	4 Quarters Ending Sep-2014
● Investment	7.51 (92)	N/A	N/A	N/A	N/A
● Index	8.82 (59)	7.81 (60)	10.62 (69)	14.71 (62)	12.39 (68)
Median	9.04	8.29	11.32	15.45	12.78

Comparative Performance

	1 Qtr Ending Mar-2019	1 Qtr Ending Dec-2018	1 Qtr Ending Sep-2018	1 Qtr Ending Jun-2018	1 Qtr Ending Mar-2018	1 Qtr Ending Dec-2017
Investment	2.07 (37)	1.62 (62)	1.59 (89)	2.17 (55)	1.84 (83)	1.71 (90)
Index	1.69 (82)	1.62 (62)	2.09 (54)	2.13 (61)	2.17 (55)	2.15 (57)
Median	1.99	1.76	2.10	2.22	2.21	2.25

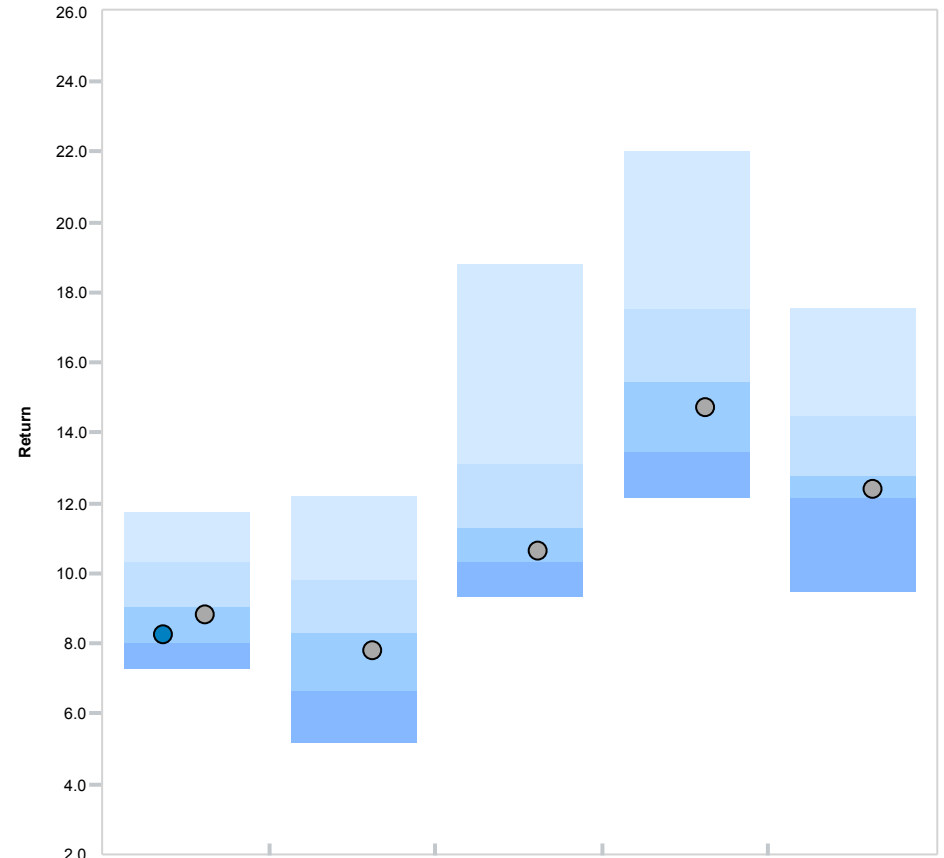


Plan Sponsor Peer Group Analysis vs. IM U.S. Open End Private Real Estate (SA+CF)



	QTR	FYTD	1 YR	2 YR	3 YR	5 YR
● Investment	1.39 (67)	4.93 (82)	6.99 (79)	7.00 (80)	N/A	N/A
● Index	1.35 (70)	4.73 (85)	6.91 (81)	7.76 (71)	7.88 (72)	10.03 (48)
Median	1.48	5.18	7.59	8.15	8.14	9.91

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



	4 Quarters Ending Sep-2018	4 Quarters Ending Sep-2017	4 Quarters Ending Sep-2016	4 Quarters Ending Sep-2015	4 Quarters Ending Sep-2014
● Investment	8.26 (70)	N/A	N/A	N/A	N/A
● Index	8.82 (59)	7.81 (60)	10.62 (69)	14.71 (62)	12.39 (68)
Median	9.04	8.29	11.32	15.45	12.78

Comparative Performance

	1 Qtr Ending Mar-2019	1 Qtr Ending Dec-2018	1 Qtr Ending Sep-2018	1 Qtr Ending Jun-2018	1 Qtr Ending Mar-2018	1 Qtr Ending Dec-2017
Investment	2.01 (43)	1.45 (74)	1.96 (58)	1.99 (70)	2.00 (70)	2.06 (71)
Index	1.69 (82)	1.62 (62)	2.09 (54)	2.13 (61)	2.17 (55)	2.15 (57)
Median	1.99	1.76	2.10	2.22	2.21	2.25



Total Fund Historical Hybrid Composition			
Allocation Mandate	Weight (%)	Allocation Mandate	Weight (%)
Jan-1998		Jul-2010	
S&P 500 Index	60.00	Russell 1000 Value Index	15.50
ICE BofAML Govt/ Corp Master	40.00	Bloomberg Barclays Intermediate US Govt/Credit Idx	20.00
Jan-2000		S&P MidCap 400 Index	10.00
S&P 500 Index	50.00	Russell 2500 Index	10.00
Bimbg. Barc. U.S. Aggregate Index	40.00	Russell 1000 Growth Index	15.50
MSCI EAFE Index	10.00	MSCI EAFE Index	9.00
Apr-2004		Bimbg. Barc. U.S. Aggregate: A+	20.00
S&P 500 Index	50.00	Jul-2017	
Bimbg. Barc. U.S. Aggregate Index	40.00	Russell 1000 Value Index	15.50
Russell 2000 Value Index	10.00	Bloomberg Barclays Intermediate US Govt/Credit Idx	16.00
Jan-2007		S&P MidCap 400 Index	10.00
S&P 500 Index	50.00	Russell 2500 Index	10.00
Bloomberg Barclays Intermediate US Govt/Credit Idx	24.00	Russell 1000 Growth Index	15.50
Russell 2000 Value Index	10.00	MSCI EAFE Index	9.00
Barclays Aggregate A+	16.00	Bimbg. Barc. U.S. Aggregate: A+	16.00
Jan-2008		NCREIF Fund Index-Open End Diversified Core (EW)	8.00
S&P 500 Index	40.00	Apr-2008	
Bloomberg Barclays Intermediate US Govt/Credit Idx	24.00	Russell 1000 Value Index	20.00
S&P MidCap 400 Index	10.00	Bloomberg Barclays Intermediate US Govt/Credit Idx	25.00
Barclays Aggregate A+	16.00	S&P MidCap 400 Index	10.00
Russell 2000 Value Index	10.00	Barclays Aggregate A+	15.00
Apr-2009		Russell 2000 Value Index	10.00
Russell 1000 Value Index	20.00	Russell 1000 Growth Index	20.00
Bloomberg Barclays Intermediate US Govt/Credit Idx	20.00	Apr-2009	
S&P MidCap 400 Index	10.00	Russell 1000 Value Index	20.00
Barclays Aggregate A+	20.00	Bloomberg Barclays Intermediate US Govt/Credit Idx	20.00
Russell 2000 Value Index	10.00	S&P MidCap 400 Index	10.00
Russell 1000 Growth Index	20.00	Barclays Aggregate A+	20.00



Total Equity Historical Hybrid Composition		Total Fixed Income Historical Hybrid Composition	
Allocation Mandate	Weight (%)	Allocation Mandate	Weight (%)
Jan-1998		Jan-1998	
S&P 500 Index	100.00	ICE BofAML Govt/ Corp Master	100.00
Jan-2000		Jan-2000	
S&P 500 Index	83.30	Blmbg. Barc. U.S. Aggregate Index	100.00
MSCI EAFE Index	16.70		
Apr-2004		Jan-2007	
S&P 500 Index	83.30	Bloomberg Barclays Intermediate US Govt/Credit Idx	60.00
Russell 2000 Value Index	16.70	Blmbg. Barc. U.S. Corporate A+ Index	40.00
Jan-2008		Apr-2008	
S&P 500 Index	66.60	Bloomberg Barclays Intermediate US Govt/Credit Idx	62.50
Russell 2000 Value Index	16.70	Blmbg. Barc. U.S. Corporate A+ Index	37.50
S&P MidCap 400 Index	16.70		
Apr-2008		Apr-2009	
Russell 1000 Growth Index	33.30	Bloomberg Barclays Intermediate US Govt/Credit Idx	50.00
Russell 2000 Value Index	16.70	Blmbg. Barc. U.S. Aggregate: A+	50.00
S&P MidCap 400 Index	16.70		
Russell 1000 Value Index	33.30		
Jul-2010			
Russell 1000 Growth Index	25.83		
Russell 2500 Index	16.67		
S&P MidCap 400 Index	16.67		
Russell 1000 Value Index	25.83		
MSCI EAFE Index	15.00		



**Sunrise Police
Fee Analysis
As of June 30, 2019**

	Estimated Annual Fee (%)	Market Value (\$)	Estimated Annual Fee (\$)	Fee Schedule
Ceredex Equity	0.57	24,564,875	140,542	0.75 % of First \$10 M 0.45 % of Next \$40 M 0.25 % Thereafter
Rhumblin R1000G	0.05	12,518,817	6,259	0.05 % of Assets
Polen Capital	0.60	12,791,507	76,749	0.60 % of Assets
Mutual of America Equity	0.07	15,984,449	11,189	0.07 % of Assets
Great Lakes SMID Cap	0.55	7,690,635	42,298	0.55 % of First \$50 M 0.45 % of Next \$50 M 0.35 % Thereafter
Vanguard R2000 (VRTIX)	0.08	7,846,879	6,278	0.08 % of Assets
JPM International Equity	0.75	6,754,393	50,658	0.75 % of Assets
Vanguard Intl Eq (VTMGX)	0.09	7,303,182	6,573	0.09 % of Assets
Total Equity Composite	0.36	95,454,737	340,546	
GHA EXCL A+ Fixed Income	0.25	23,531,190	58,828	0.25 % of Assets
GHA A+ Fixed Income	0.25	25,541,850	63,855	0.25 % of Assets
Total Fixed Income Composite	0.25	49,073,040	122,683	
Barings Real Estate	1.10	6,836,373	75,200	1.10 % of Assets
ASB Real Estate	1.21	5,884,972	71,350	1.25 % of First \$5 M 1.00 % of Next \$10 M 0.90 % of Next \$60 M 0.75 % Thereafter
Total Real Estate	1.15	12,721,345	146,550	
R&D Cash		424,787	-	
Total Fund Composite	0.39	157,673,909	609,779	

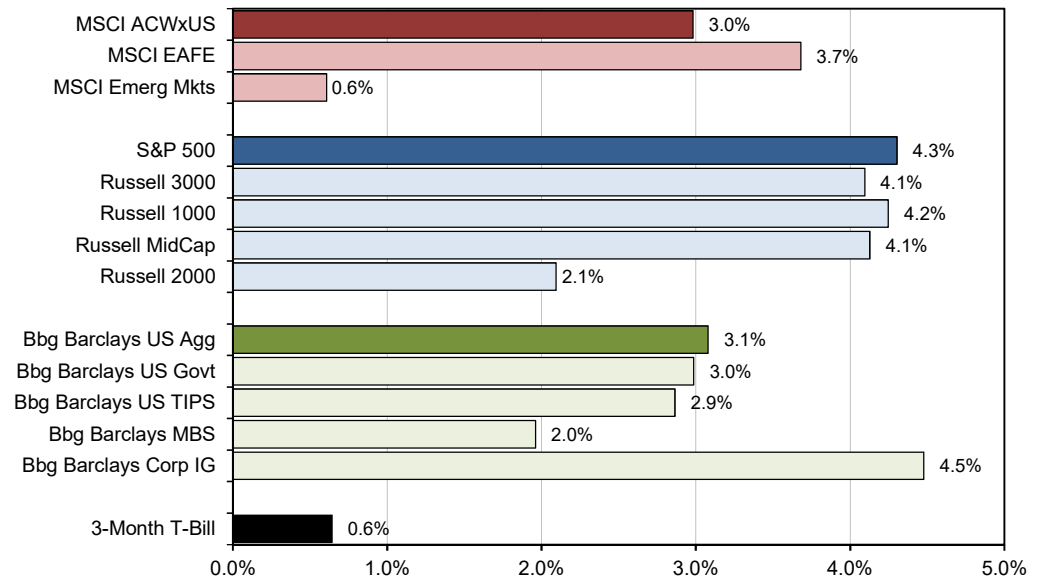


2nd Quarter 2019 Market Environment

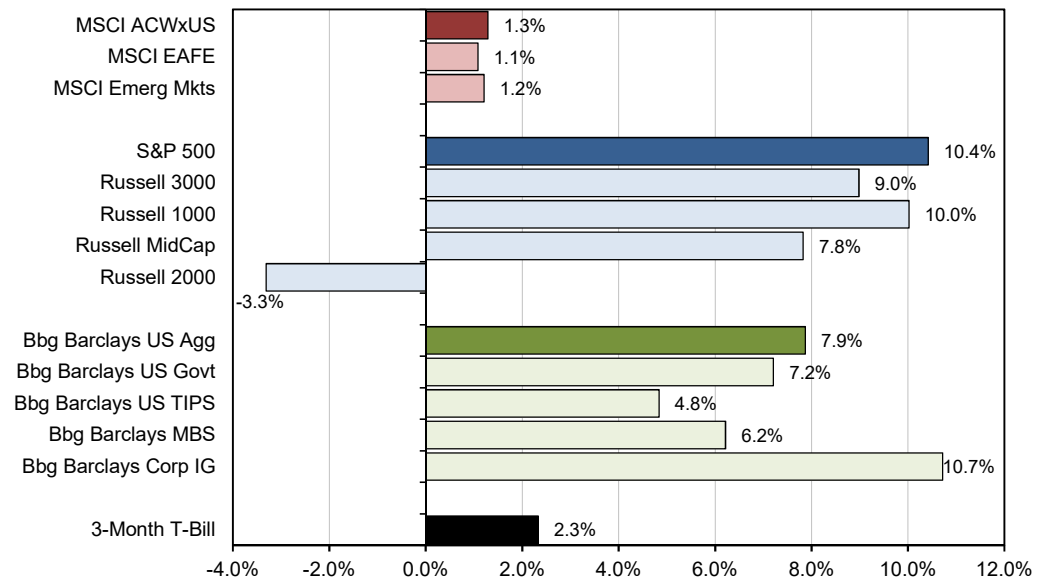


- Broad asset class returns were positive during the 2nd quarter of 2019 with both equity and fixed income indices extending their year-to-date gains. US stocks outperformed international stocks during a very volatile quarter. Equity indices rose to start the period as progress in global trade negotiations outweighed signs of weakness in macroeconomic data. However, trade discussions between the US and China fell apart in May prompting increased tariffs and sharp declines in equity markets. The softening in economic data, stubbornly low inflation and the threat of slower future growth caused by ongoing disruption in trade led the Federal Reserve (Fed) to communicate a shift toward a more accommodative policy stance. This change in central bank posture caused markets to rebound strongly, ending the quarter higher for the period. Fixed income returns were also positive during the quarter as the prospect of more accommodative monetary policy pushed interest rates lower, increasing bond prices. Within domestic equity markets, large cap stocks outperformed small cap equities during the quarter with the S&P 500 Index returning 4.3% versus a 2.1% return on the small cap Russell 2000 Index. US equity returns over the 1-year period were positive within large and mid cap stocks, returning 10.4% and 7.8% respectively, but small cap stocks posted a loss, falling -3.3%.
- Similar to US markets, international markets were volatile during the 2nd quarter as investors reacted to mixed economic data, heightened geopolitical uncertainty, particularly around the outlook for global trade and Brexit, and increased accommodation in central bank policy with the European Central Bank (ECB) and People's Bank of China (PBoC) pledging additional stimulus if needed. Developed markets outperformed emerging markets during the period with the MSCI EAFE Index returning 3.7% versus a 0.6% return on the MSCI Emerging Markets Index. Both developing and emerging markets posted modest gains over the 1-year period, returning 1.1% and 1.2% respectively.
- Fixed income returns were in line with equities during the 2nd quarter. The broad market Bloomberg Barclays Aggregate Index returned 3.1% as a more dovish stance from the Fed and other global central banks pushed interest rates lower across the US Treasury Yield Curve. The curve steepened but remained inverted with shorter-term maturities paying higher interest rates than those in the middle of the curve. Investment grade corporate issues were the best performing securities for the second quarter in a row, outperforming Treasury and securitized issues. The Bloomberg Barclays Corporate IG Index returned 4.5% for the period, as corporate credit had tailwinds due to greater interest rate sensitivity, higher yields and tightening credit spreads. Corporate issues also outperformed the other major fixed income sectors over the 1-year period, returning 10.7% versus a 7.9% return for the Bloomberg Barclays Aggregate Index.

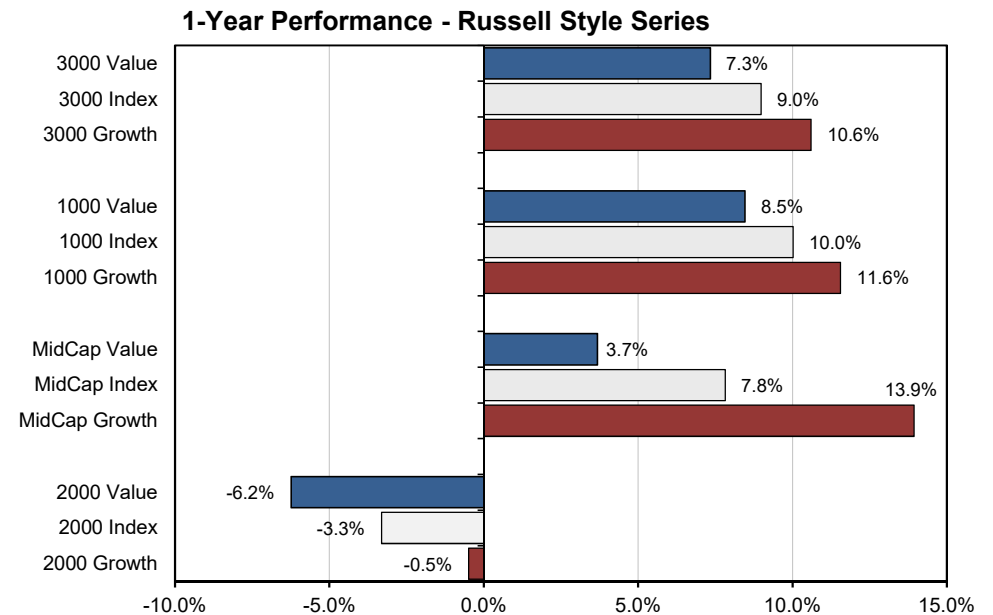
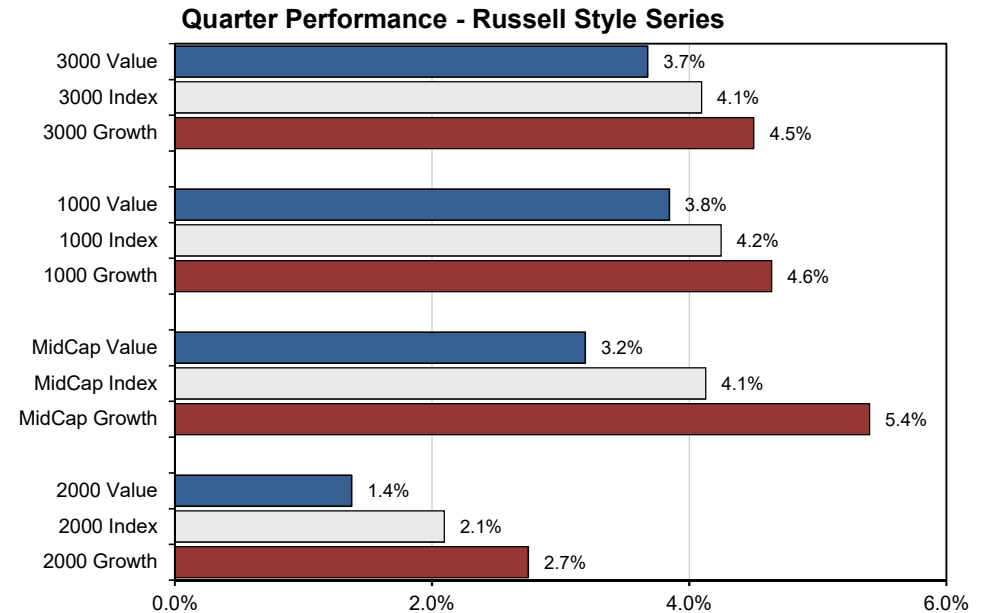
Quarter Performance



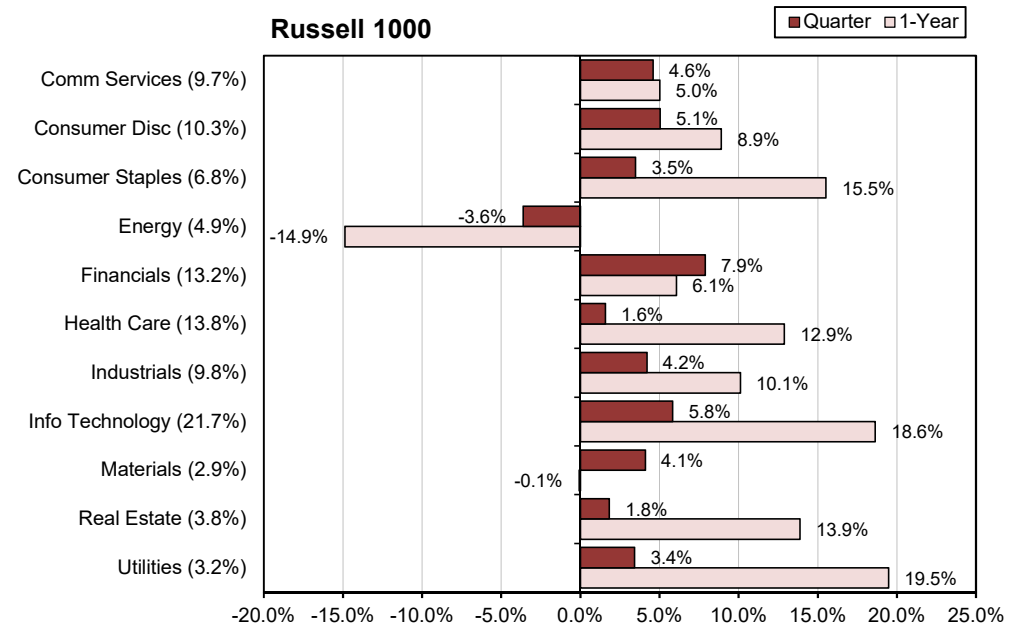
1-Year Performance



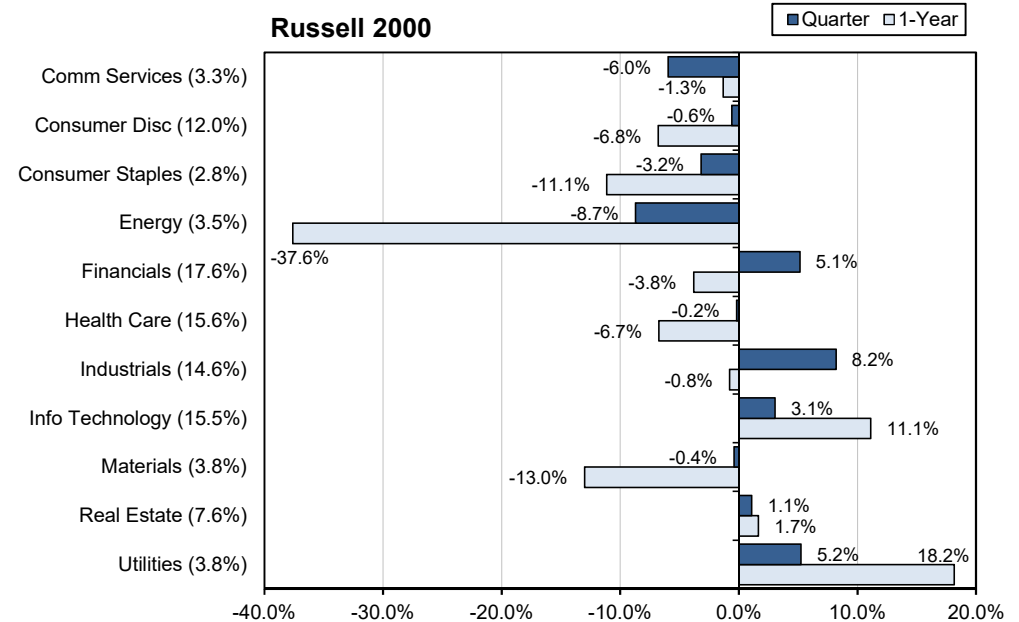
- US equity index returns were modestly positive across the style and capitalization spectrum for the 2nd quarter. Corporate earnings reported during the quarter surprised to the upside, but economic data released during the period showed signs of slowing growth. Developments around global trade were particularly prominent during the period, heavily influencing market sentiment. Positive developments in trade negotiations with China came to an abrupt halt in May leading the US to increase tariffs on \$200 billion of Chinese imports from 10% to 25% and announce that the US would consider tariffs on the remaining \$300 billion in goods imported from China. China retaliated by increasing the tariff range on \$60 billion of US goods from 5-10% to 5-25%. Additionally, the US instituted a ban on sales of technology equipment to Chinese telecommunications firm Huawei citing national security risks. China is expected to take similar action in retaliation although nothing has been announced. Trade talks are ready to resume and both sides have agreed to cease escalations following a meeting between President Trump and President Jinping at the G20 summit held at the end of the quarter. In addition, President Trump threatened a 5% tariff on all Mexican imports as a tact to reduce the level of illegal immigration at the US border with Mexico, and US waivers on sanctions for Iranian oil ended leading to increased tensions in the region that were further escalated after Iran downed a US drone. Despite these headwinds, markets rose following comments from an increasingly accommodative Fed as investors priced in greater odds of easy monetary policy going forward.
- During the quarter, higher market cap stocks outperformed lower market cap stocks across the style spectrum with the only exception being the outperformance of mid cap growth stocks relative to large cap growth stocks. The large cap Russell 1000 Index gained 4.2% during the period versus a 4.1% return for the Russell MidCap Index and a 2.1% gain on the small cap Russell 2000 Index as market participants may be moving toward the relative safety of large cap names as the economy continues to show growing signs of weakness. When viewed over the most recent 1-year period, large cap stocks outperformed relative to small cap stocks. The Russell 1000 returned 10.0% for the year while the Russell 2000 fell -3.3%.
- Growth indices outperformed value indices across the market cap spectrum during the 2nd quarter. Growth stocks have outperformed value in nine of the last ten quarters. The Russell MidCap Growth Index was the best performing style index for the period, returning 5.4% for the quarter with the small cap value index posting the lowest relative return, a gain of 1.4%. The trend of growth outperformance is also visible over the 1-year period as growth indices have benefitted from larger exposures to technology which has been a large driver of index performance over the last year, as well as a meaningful underweight to energy which has been a relative detractor.



- Sector performance was broadly positive across large cap sectors for the 2nd quarter. There were gains for ten out of eleven sectors within the Russell 1000 Index during the period with four sectors outpacing the return of the index. Cyclical sectors such as technology, industrials and consumer discretionary were some of the best performers through the quarter returning 5.8%, 4.2% and 5.1% respectively. Financials also outperformed, returning 7.9%, as investors weighed the benefits of continued economic expansion due to easing monetary policy against the effects of lower interest rates on bank earnings. More defensive higher yielding sectors such as consumer staples, real estate and utilities underperformed for the quarter returning 3.5%, 1.8% and 3.4% respectively. The energy sector was the only large cap sector to post a negative return during the quarter, falling -3.6%, as headwinds from weakening economic data and low oil and natural gas prices weighed on 1st quarter earnings. Health care stocks also lagged as continued discussions in Washington around the potential for increased regulation on drug pricing acted as a headwind. Returns over the 1-year period were positive with nine out of eleven sectors posting gains, six of which were over 10%. Defensive sectors such as utilities, REITs and consumer staples performed well returning 19.5%, 13.9% and 15.5% respectively. Technology returns were also strong gaining 18.6%. Energy and materials were the only sectors to post negative results over the 1-year period with energy falling -14.9% and materials returning -0.1%.



- Quarterly results for small cap sectors were generally worse than their large capitalization counterparts with only two of eleven sectors (industrials and utilities) outperforming their corresponding large cap equivalents. Five of eleven sectors produced gains during the period with four of eleven economic sectors outpacing the Russell 2000 Index return for the quarter. Similar to large caps, cyclical sectors performed well on hopes that any Fed policy easing would counteract the recent weakness in economic growth. The industrials sector performed particularly well returning 8.2%, financials posted a 5.1% gain and technology returned 3.1%. Utilities also outperformed returning 5.2%. The largest detractors over the period were energy and communication services which returned -8.7% and -6.0% respectively. Over the trailing 1-year period, returns were broadly negative. Utilities and technology were relative bright spots returning 18.2% and 11.1%. The energy sector was an outlier in terms of negative returns losing -37.6% during the period. There were also notable losses in materials and consumer staples with materials losing -13.0% and consumer staples falling -11.1%.



The Market Environment
Top 10 Index Weights & Quarterly Performance for the Russell 1000 & 2000
As of June 30, 2019

Top 10 Weighted Stocks				
Russell 1000	Weight	1-Qtr Return	1-Year Return	Sector
Microsoft Corp	3.71%	14.0%	37.5%	Information Technology
Apple Inc	3.44%	4.6%	8.6%	Information Technology
Amazon.com Inc	2.85%	6.3%	11.4%	Consumer Discretionary
Facebook Inc A	1.68%	15.8%	-0.7%	Communication Services
Berkshire Hathaway Inc B	1.51%	6.1%	14.2%	Financials
Johnson & Johnson	1.37%	0.3%	17.9%	Health Care
JPMorgan Chase & Co	1.35%	11.3%	10.3%	Financials
Alphabet Inc Class C	1.20%	-7.9%	-3.1%	Communication Services
Exxon Mobil Corp	1.19%	-4.1%	-3.3%	Energy
Alphabet Inc A	1.18%	-8.0%	-4.1%	Communication Services

Top 10 Performing Stocks (by Quarter)				
Russell 1000	Weight	1-Qtr Return	1-Year Return	Sector
Adient PLC	0.01%	87.3%	-50.0%	Consumer Discretionary
Anadarko Petroleum Corp	0.13%	55.8%	-1.6%	Energy
Cypress Semiconductor Corp	0.03%	49.8%	46.9%	Information Technology
Okta Inc A	0.04%	49.3%	145.2%	Information Technology
Erie Indemnity Co Class A	0.02%	43.2%	122.5%	Financials
Heico Corp	0.02%	41.1%	83.9%	Industrials
Legg Mason Inc-LeggMason RETAIL	0.01%	39.9%	14.4%	Financials
Exact Sciences Corp	0.05%	36.3%	97.4%	Health Care
Caesars Entertainment Corp	0.02%	36.0%	10.5%	Consumer Discretionary
Ardagh Group SA	0.00%	35.9%	9.6%	Materials

Bottom 10 Performing Stocks (by Quarter)				
Russell 1000	Weight	1-Qtr Return	1-Year Return	Sector
2U Inc	0.01%	-46.9%	-55.0%	Information Technology
Alkermes PLC	0.01%	-38.2%	-45.2%	Health Care
Range Resources Corp	0.01%	-37.7%	-58.0%	Energy
Antero Resources Corp	0.00%	-37.4%	-74.1%	Energy
Chesapeake Energy Corp	0.01%	-37.1%	-62.8%	Energy
RPC Inc	0.00%	-36.5%	-48.8%	Energy
Realogy Holdings Corp	0.00%	-35.8%	-67.4%	Real Estate
The Chemours Co	0.02%	-34.7%	-44.2%	Materials
United Therapeutics Corp	0.01%	-33.5%	-31.0%	Health Care
Mylan NV	0.04%	-32.8%	-47.3%	Health Care

Top 10 Weighted Stocks				
Russell 2000	Weight	1-Qtr Return	1-Year Return	Sector
Array BioPharma Inc	0.48%	90.0%	176.1%	Health Care
The Trade Desk Inc A	0.37%	15.1%	142.8%	Information Technology
Etsy Inc	0.36%	-8.7%	45.5%	Consumer Discretionary
Coupa Software Inc	0.35%	39.2%	103.4%	Information Technology
Five Below Inc	0.32%	-3.4%	22.8%	Consumer Discretionary
Planet Fitness Inc A	0.31%	5.4%	64.9%	Consumer Discretionary
HubSpot Inc	0.31%	2.6%	36.0%	Information Technology
Haemonetics Corp	0.30%	37.6%	34.2%	Health Care
Woodward Inc	0.30%	19.4%	48.0%	Industrials
Ciena Corp	0.29%	10.1%	55.1%	Information Technology

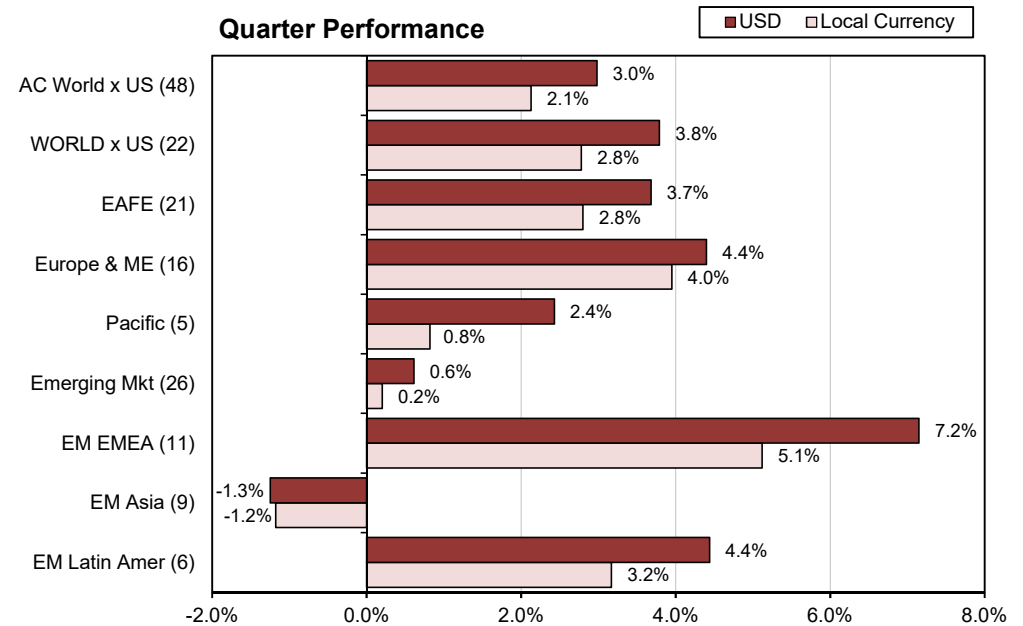
Top 10 Performing Stocks (by Quarter)				
Russell 2000	Weight	1-Qtr Return	1-Year Return	Sector
Iovance Biotherapeutics Inc	0.13%	157.8%	91.6%	Health Care
Arqule Inc	0.06%	129.9%	99.1%	Health Care
Adverum Biotechnologies Inc	0.03%	126.9%	124.3%	Health Care
Chimerix Inc	0.01%	105.7%	-9.2%	Health Care
Enphase Energy Inc	0.08%	97.5%	170.9%	Information Technology
Maxar Technologies Inc	0.02%	94.8%	-84.0%	Industrials
Array BioPharma Inc	0.48%	90.0%	176.1%	Health Care
Melinta Therapeutics Inc	0.00%	87.3%	-79.1%	Health Care
G1 Therapeutics Inc	0.03%	84.7%	-29.5%	Health Care
Foundation Building Materials Inc	0.01%	80.7%	15.6%	Industrials

Bottom 10 Performing Stocks (by Quarter)				
Russell 2000	Weight	1-Qtr Return	1-Year Return	Sector
FuelCell Energy Inc	0.00%	-94.0%	-98.9%	Industrials
Halcon Resources Corp	0.00%	-86.9%	-96.0%	Energy
Pioneer Energy Services Corp	0.00%	-85.7%	-95.7%	Energy
Eros International PLC	0.00%	-85.2%	-89.6%	Communication Services
Superior Energy Services Inc	0.01%	-72.2%	-86.7%	Energy
electroCore Inc	0.00%	-71.4%	-87.9%	Health Care
Ultra Petroleum Corp	0.00%	-70.5%	-92.2%	Energy
Nuvecra Corp	0.00%	-69.6%	-83.7%	Health Care
Dean Foods Co	0.00%	-69.5%	-91.1%	Consumer Staples
Kirkland's Inc	0.00%	-67.9%	-80.6%	Consumer Discretionary

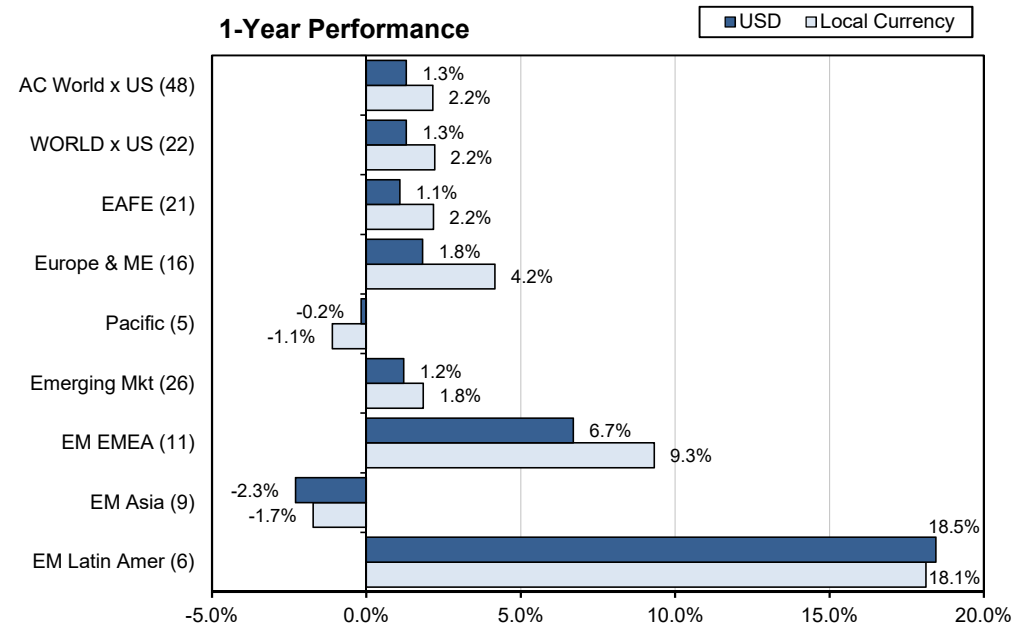


- Broad international equity returns were positive for the quarter in both local currency and USD terms. The MSCI ACWI ex US Index gained 2.1% in local currency terms and 3.0% in US dollar (USD) terms during the 2nd quarter. Similar to US markets, international equity investors balanced difficulties around global trade with central bank shifts toward more accommodative policies as a response to slowing global growth. Notably the ECB President Mario Draghi stated that further monetary policy action may need to be taken if inflation remains below target and the PBoC launched stimulus measures designed to encourage growth following the deterioration of trade negotiations with the US. Returns in USD largely outperformed those in local currency during the quarter as the USD depreciated against most major developed currencies following dovish Fed comments in June. However, the recent USD strength can still be seen over the 1-year period with USD returns trailing most local currency returns. Returns for the MSCI ACWI ex US Index were 2.2% in local currency terms and 1.3% in USD terms for the trailing year.
- Results for developed market international indices were positive in both local currency and USD terms during the 2nd quarter, with the MSCI EAFE Index returning 2.8% and 3.7% respectively. Outside of central bank policy and trade, there was notable news out of the UK with Prime Minister Theresa May resigning from her post after her Brexit withdrawal plan failed to gain parliamentary approval and a new vote for the office is currently underway. UK markets were pressured by continued uncertainty around Brexit with the UK having until October to strike an agreement with the European Union (EU) or withdraw with no agreement in place. Despite the growing uncertainty, the Bank of England (BoE) left monetary policy unchanged. Japan also underperformed as the yen appreciated due to its perceived safe haven status and trade headwinds were expected to affect its export driven economy. The MSCI EAFE Index returned 2.2% and 1.1% for the last twelve months in local currency and USD terms respectively.
- Emerging markets underperformed relative to developed markets for the 2nd quarter, slightly appreciating in both local currency and USD terms. The MSCI Emerging Markets Index gained 0.2% and 0.6% respectively. As expected, geopolitical tensions around trade put pressure on emerging market stocks, with Chinese equities underperforming relative to most countries. Latin American stocks performed well with Brazil and Argentina posting strong returns as commodity prices appreciated from recent lows at the end of 2018 and interest rates fell. Russian equities also performed well, benefiting from increasing commodity prices, but also had a tailwind from a decrease in the likelihood of future US sanctions. One year returns for the MSCI Emerging Market Index were 1.8% in local currency terms and 1.2% in USD terms.

Quarter Performance



1-Year Performance



The Market Environment
US Dollar International Index Attribution & Country Detail
As of June 30, 2019

MSCI - EAFE	Sector Weight	Quarter Return	1-Year Return
Communication Services	5.4%	4.0%	4.3%
Consumer Discretionary	11.1%	5.9%	-2.6%
Consumer Staples	11.7%	1.9%	4.8%
Energy	5.6%	0.4%	-5.5%
Financials	18.9%	4.3%	-2.9%
Health Care	11.2%	2.0%	7.5%
Industrials	14.8%	5.9%	2.4%
Information Technology	6.7%	6.6%	2.7%
Materials	7.4%	3.9%	0.2%
Real Estate	3.6%	-2.2%	2.3%
Utilities	3.6%	1.5%	9.8%
Total	100.0%	3.7%	1.1%

MSCI - ACWIxUS	Sector Weight	Quarter Return	1-Year Return
Communication Services	6.9%	1.0%	5.6%
Consumer Discretionary	11.3%	3.8%	-3.6%
Consumer Staples	9.8%	2.2%	4.6%
Energy	7.2%	0.5%	-1.4%
Financials	21.9%	4.4%	2.0%
Health Care	8.3%	1.2%	4.2%
Industrials	11.9%	5.2%	2.9%
Information Technology	8.5%	4.0%	-0.7%
Materials	7.6%	2.9%	-0.5%
Real Estate	3.3%	-1.6%	4.3%
Utilities	3.3%	2.2%	10.1%
Total	100.0%	3.0%	1.3%

MSCI - Emerging Mkt	Sector Weight	Quarter Return	1-Year Return
Communication Services	11.7%	-2.4%	4.5%
Consumer Discretionary	13.5%	-1.2%	-7.6%
Consumer Staples	6.6%	3.3%	0.9%
Energy	7.9%	1.2%	16.3%
Financials	25.2%	4.0%	11.9%
Health Care	2.6%	-6.6%	-24.7%
Industrials	5.3%	0.0%	4.1%
Information Technology	13.9%	-0.1%	-6.1%
Materials	7.6%	-1.2%	-1.9%
Real Estate	3.0%	-0.2%	10.1%
Utilities	2.7%	2.9%	9.0%
Total	100.0%	0.6%	1.2%

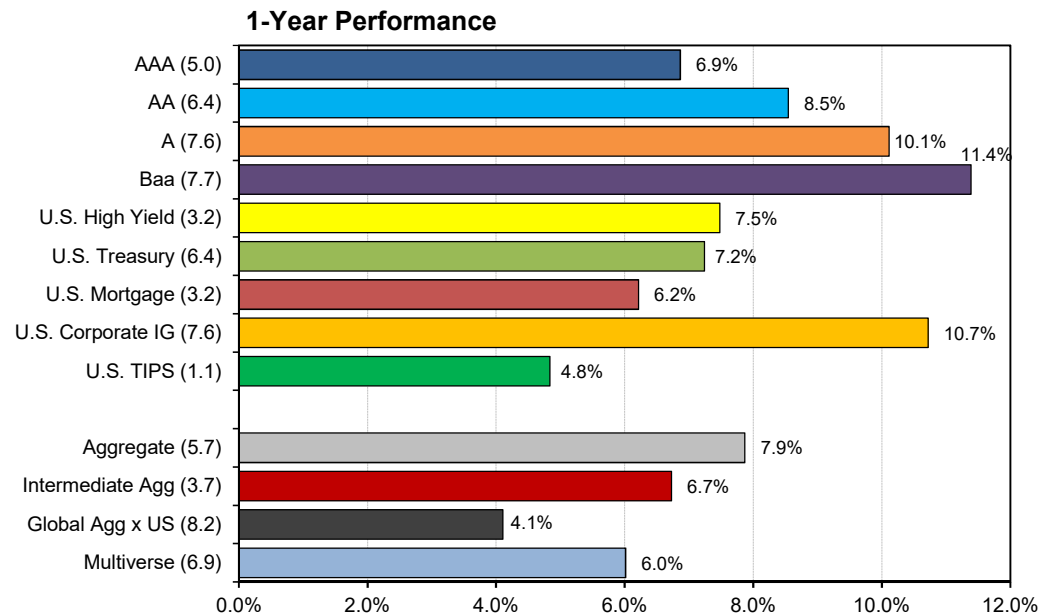
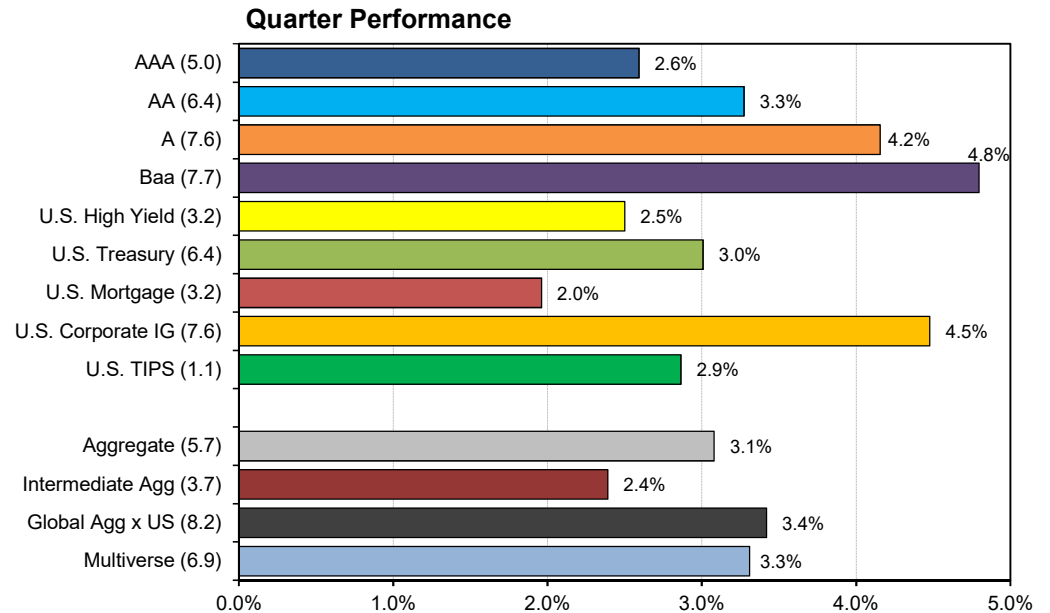
Country	MSCI-EAFE Weight	MSCI-ACWIxUS Weight	Quarter Return	1-Year Return
Japan	23.7%	15.8%	1.0%	-4.2%
United Kingdom	16.8%	11.2%	0.9%	-2.1%
France	11.4%	7.6%	6.5%	3.0%
Switzerland	9.3%	6.2%	8.4%	19.8%
Germany	8.8%	5.9%	7.1%	-3.8%
Australia	7.1%	4.8%	7.3%	6.6%
Hong Kong	4.0%	2.7%	1.0%	10.4%
Netherlands	3.6%	2.4%	5.8%	5.3%
Spain	3.0%	2.0%	2.6%	-2.1%
Sweden	2.7%	1.8%	4.9%	3.4%
Italy	2.3%	1.6%	2.9%	-0.7%
Denmark	1.7%	1.1%	1.6%	5.8%
Singapore	1.4%	0.9%	7.0%	8.3%
Finland	1.0%	0.7%	0.2%	-4.7%
Belgium	1.0%	0.7%	1.2%	-9.1%
Norway	0.7%	0.5%	2.4%	-4.3%
Israel	0.6%	0.4%	-3.6%	-4.5%
Ireland	0.5%	0.4%	4.7%	-9.2%
New Zealand	0.3%	0.2%	3.9%	16.0%
Austria	0.2%	0.2%	0.8%	-13.1%
Portugal	0.2%	0.1%	1.6%	-4.6%
Total EAFE Countries	100.0%	66.8%	3.7%	1.1%
Canada		6.8%	4.9%	3.3%
Total Developed Countries		73.6%	3.8%	1.3%
China		8.3%	-4.0%	-6.7%
Korea		3.3%	-1.0%	-9.1%
Taiwan		2.9%	0.9%	1.1%
India		2.4%	0.5%	7.9%
Brazil		2.0%	7.2%	39.4%
South Africa		1.6%	6.6%	-0.8%
Russia		1.1%	16.9%	27.1%
Thailand		0.8%	9.3%	19.8%
Saudi Arabia		0.8%	0.6%	11.0%
Mexico		0.7%	1.1%	-7.4%
Indonesia		0.6%	3.2%	20.3%
Malaysia		0.6%	1.2%	-0.8%
Philippines		0.3%	4.4%	19.7%
Poland		0.3%	3.5%	10.5%
Qatar		0.3%	0.6%	18.8%
Chile		0.2%	-5.6%	-12.1%
United Arab Emirates		0.2%	-2.7%	3.0%
Turkey		0.1%	2.8%	-17.1%
Colombia		0.1%	-2.4%	-3.7%
Peru		0.1%	-1.9%	3.5%
Argentina		0.1%	31.7%	15.8%
Greece		0.1%	16.2%	-9.2%
Hungary		0.1%	-4.1%	12.7%
Czech Republic		0.0%	2.6%	1.1%
Egypt		0.0%	7.8%	5.4%
Pakistan		0.0%	-20.8%	-36.7%
Total Emerging Countries		26.4%	0.6%	1.2%
Total ACWIxUS Countries		100.0%	3.0%	1.3%

Source: Morningstar Direct, MSCI Global Index Monitor (Returns are Net in USD)

As a result of the GICS classification changes on 9/28/2018 and certain associated reporting limitations, sector performance represents backward looking performance for the prior year of each sector's current constituency, post creation of the Communication Services sector.

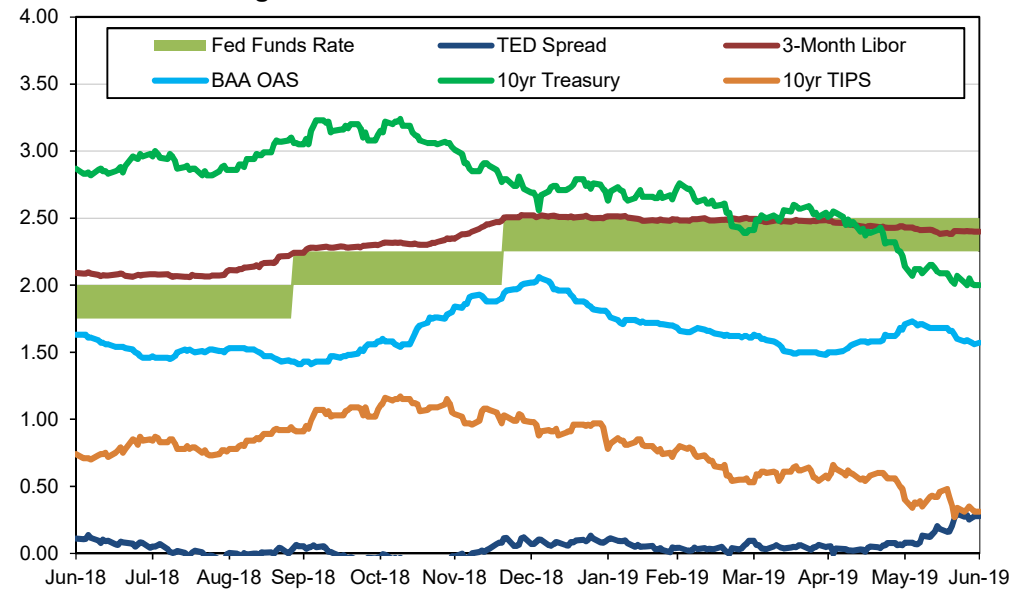


- Broad fixed income benchmarks built on their early 2019 gains during the 2nd quarter. During the 1st quarter, the Federal Open Market Committee (FOMC) reacted to a difficult end to 2018 by issuing guidance that the FOMC is no longer projecting any further interest rate increases through 2019. Federal Reserve Chair Jerome Powell also stated that the Fed would begin tapering the roll off from the planned balance sheet reduction program in May with a plan to halt the program entirely in September. The stoppage of the balance sheet reduction program represents an easing of monetary policy. The Fed took an increasingly dovish stance during the 2nd quarter reacting to softening economic data, tepid inflation and increased risks around global trade. While the committee left interest rates unchanged, the minutes from the June FOMC meeting indicate that the committee felt “downside risks to the outlook for economic activity had risen materially” during the quarter with several participants noting that a “near-term cut in the target range for the Federal Funds Rate could help cushion the effects of possible future adverse shocks to the economy”. These comments led market participants to forecast greater odds of an interest rate cut this year, pushing markets higher. Interest rates fell across all maturities on the US Treasury Yield Curve with the greatest declines occurring in the mid- and long-term issues. The curve remains inverted with short-term maturities paying higher interest rates than issues in the mid- to long-end of the curve. The bellwether Bloomberg Barclays US Aggregate Index posted positive returns for both the 1st quarter and the 1-year period, returning 3.1% and 7.9% respectively.
- Within investment grade credit, lower quality issues outperformed higher quality issues as investors gravitated toward higher risk securities during the quarter. Lower quality issues also benefitted from their higher durations. On an absolute basis, without negating the duration differences in the sub-indices, Baa rated credit was the best performing investment grade credit quality segment returning 4.8% for the quarter, while AAA was the worst performing, returning 2.6%. High yield issues returned 2.5% for the quarter as these issues did not commensurately benefit from the drop in interest rates due to their lower durations. Returns over the 1-year period generally show lower quality securities outperforming higher quality issues.
- Investment grade corporates outperformed the more defensive Treasury and mortgage backed sectors of the Bloomberg Barclays US Aggregate Index’s three broad sectors during the 2nd quarter. Investment grade corporate credit returned 4.5%, as falling interest rates benefitted these securities to a greater degree and credit spreads have continued to tighten since the end of 2018. When viewed over the 1-year period, corporate credit outperformed both Treasuries and mortgage backed securities. Corporate issues returned 10.7% versus a 6.2% return for mortgages and 7.2% gain on Treasury securities.

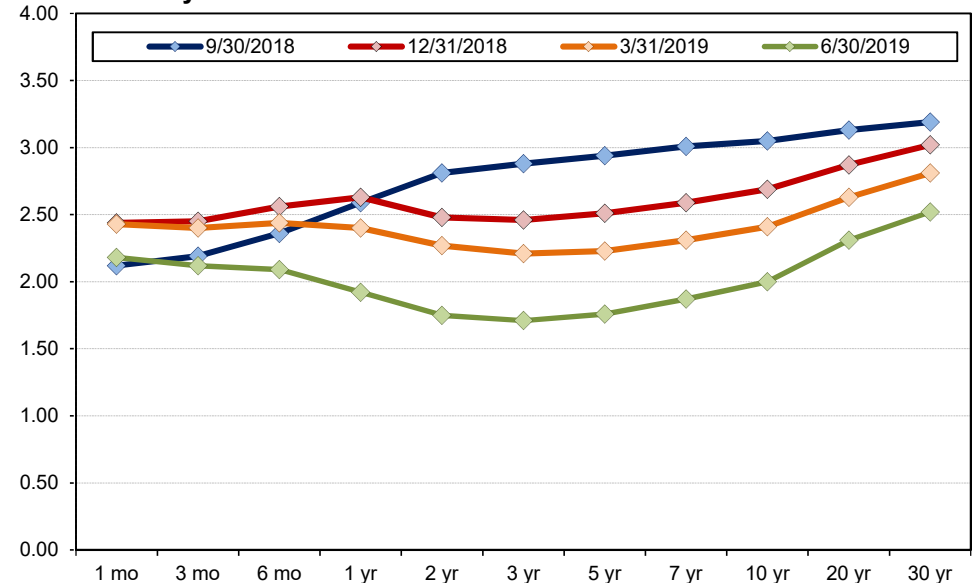


- Global fixed income returns were in line with their domestic counterparts, slightly outperforming during the 2nd quarter. These indices have lower, or in some cases (Germany, Japan), negative yields, but have higher durations. The returns of these indices are also significantly influenced by fluctuations in their currency denomination relative to the USD. The USD depreciated against most other developed currencies, acting as a tailwind to global bond indices. The return on global bonds, as represented by the Bloomberg Barclays Global Aggregate ex US Index, was 3.4%. Global bonds still trail over the 1-year period with the Global Aggregate ex US Index returning 4.1% versus a 7.9% return on the domestically focused Barclays Aggregate Index. As global growth has shown signs of stalling, several international central banks have started to step back from more restrictive postures. The ECB and the PBoC have moved toward an easing of monetary policy and implemented various stimulus programs designed to support their respective economies. The Bank of England and the Bank of Japan made no major policy changes during the quarter as they continue to review macroeconomic data within their respective countries.
- Much of the index performance detailed in the bar graphs on the previous page is visible on a time series basis by reviewing the line graphs to the right. The '1-Year Trailing Market Rates' chart illustrates that the 10-year Treasury yield (green line) fell from recent high's greater than 3.0%, to 2.0% to end the quarter. The blue line illustrates changes in the BAA OAS (Option Adjusted Spread). This measure quantifies the additional yield premium that investors require to purchase and hold non-Treasury issues. This line illustrates an abrupt increase in credit spreads during the 4th quarter of 2018 as investors moved to higher quality assets during the quarter's risk-off environment. Subsequently, spreads dropped steadily until they rose again in May and then later declined in June. This spread tightening is equivalent to an interest rate decrease on corporate bonds, which produces an additional tailwind for corporate bond index returns. These credit spreads have tightened by about 6 basis points over the last three months. The green band across the graph illustrates the gradual increase in the Federal Funds Rate due to the tightening of US monetary policy during 2018. There have been no changes to the Federal Funds Rate in 2019.
- The lower graph provides a snapshot of the US Treasury yield curve at the end of each of the last four calendar quarters. The downward shift in interest rates as well as a general steepening of the yield curve are clearly visible over the last quarter. As mentioned, the yield curve continues to invert as yields on shorter-term maturities fell less than interest rates in the middle- to long-end of the curve.

1-Year Trailing Market Rates



Treasury Yield Curve



Source: US Department of Treasury, FRED (Federal Reserve of St. Louis)



Disclosures

Disclosures as they pertain to GHA balanced account:

- Due to the balanced account, Total Equity, Total Fixed Income Composites, GHA LCG, and GHA EXCL A+ returns are shown as segment level returns that do not include their respective cash balances and returns prior to 12/31/2017.

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.



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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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