

Investment Performance Review
Period Ending September 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

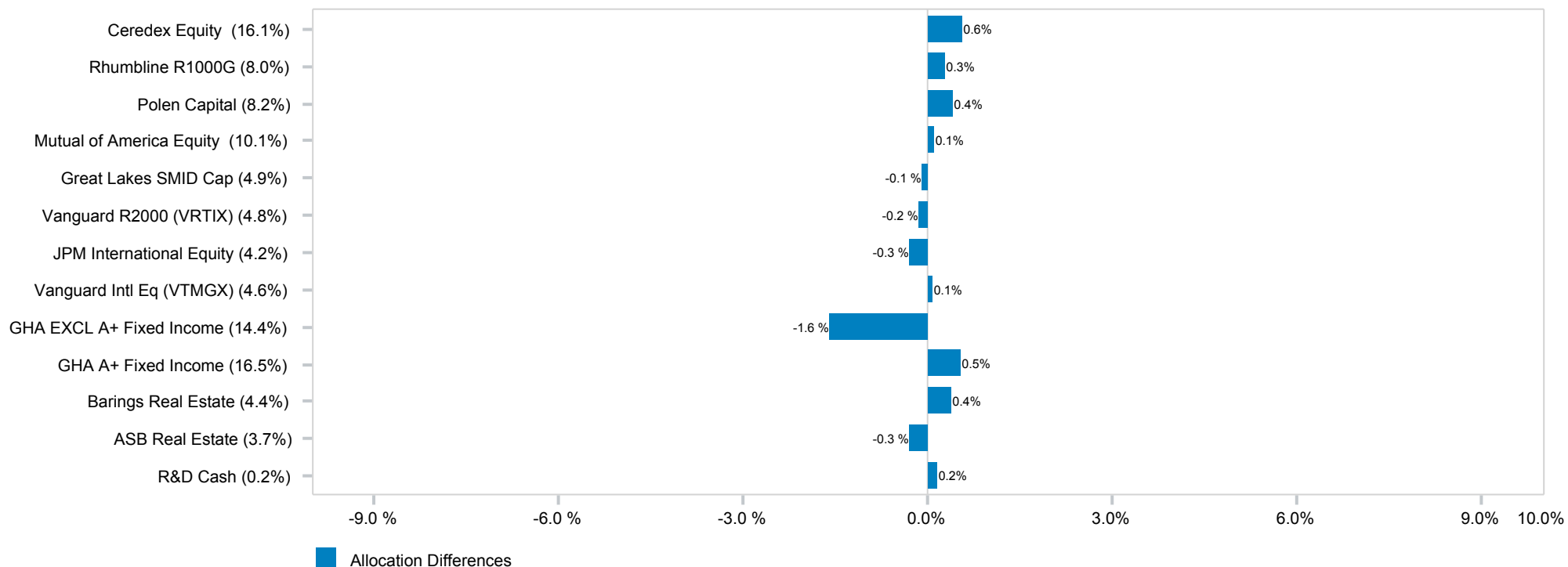
** Since Inception

Net performance used when available



Asset Allocation Compliance

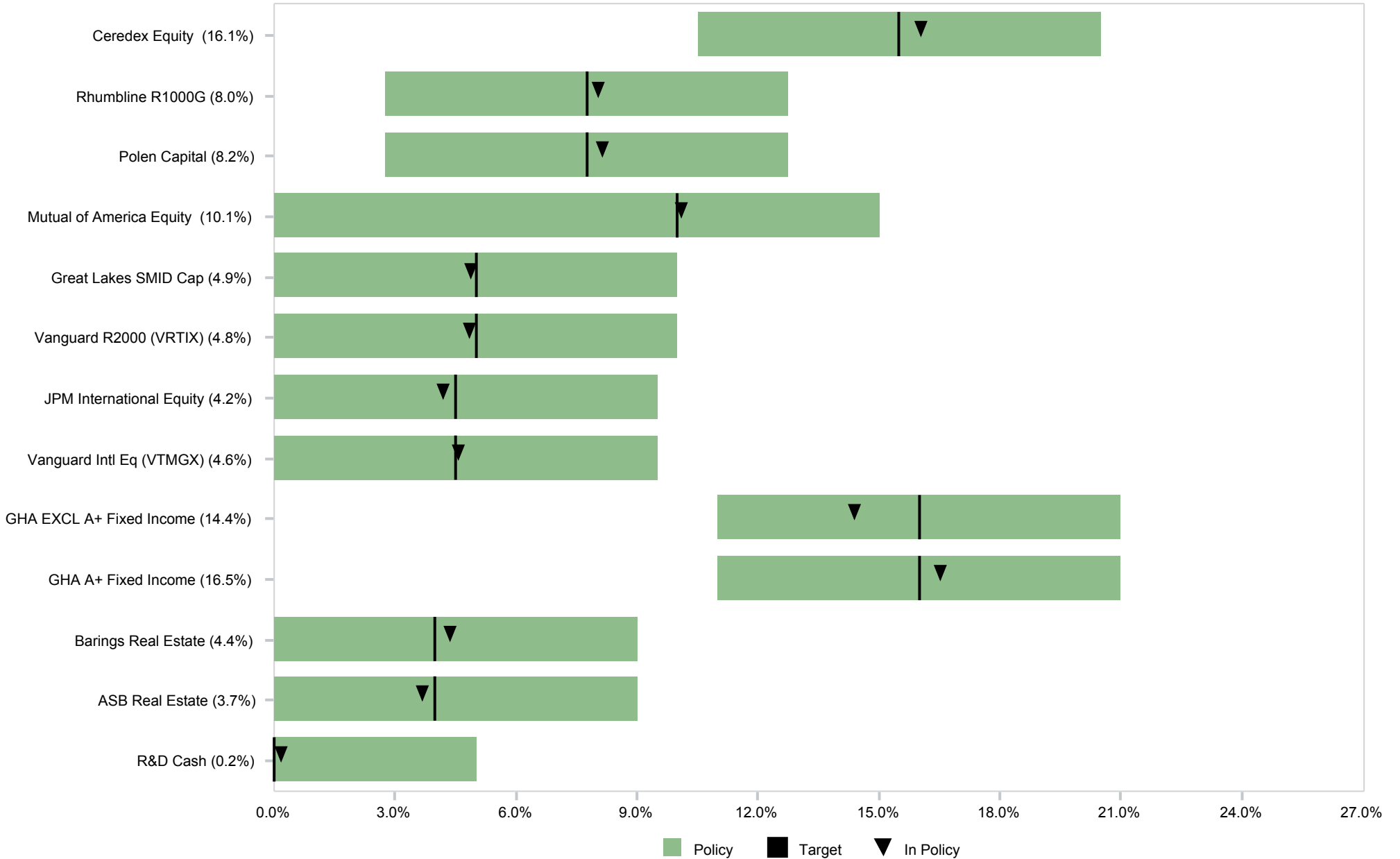
	Asset Allocation \$	Current Allocation (%)	Target Allocation (%)	Differences (%)	Target Rebal. (\$000)
Total Fund Composite	158,111,606	100.0	100.0	0.0	-
Ceredex Equity	25,381,621	16.1	15.5	0.6	-874,323
Rhumblin R1000G	12,705,408	8.0	7.8	0.3	-451,759
Polen Capital	12,890,756	8.2	7.8	0.4	-637,106
Mutual of America Equity	15,966,814	10.1	10.0	0.1	-155,653
Great Lakes SMID Cap	7,731,454	4.9	5.0	-0.1	174,126
Vanguard R2000 (VRTIX)	7,659,036	4.8	5.0	-0.2	246,544
JPM International Equity	6,636,399	4.2	4.5	-0.3	478,624
Vanguard Intl Eq (VTMGX)	7,230,878	4.6	4.5	0.1	-115,856
GHA EXCL A+ Fixed Income	22,772,900	14.4	16.0	-1.6	2,524,957
GHA A+ Fixed Income	26,141,219	16.5	16.0	0.5	-843,362
Barings Real Estate	6,914,565	4.4	4.0	0.4	-590,101
ASB Real Estate	5,834,716	3.7	4.0	-0.3	489,749
R&D Cash	245,840	0.2	0.0	0.2	-245,840



Allocation Differences

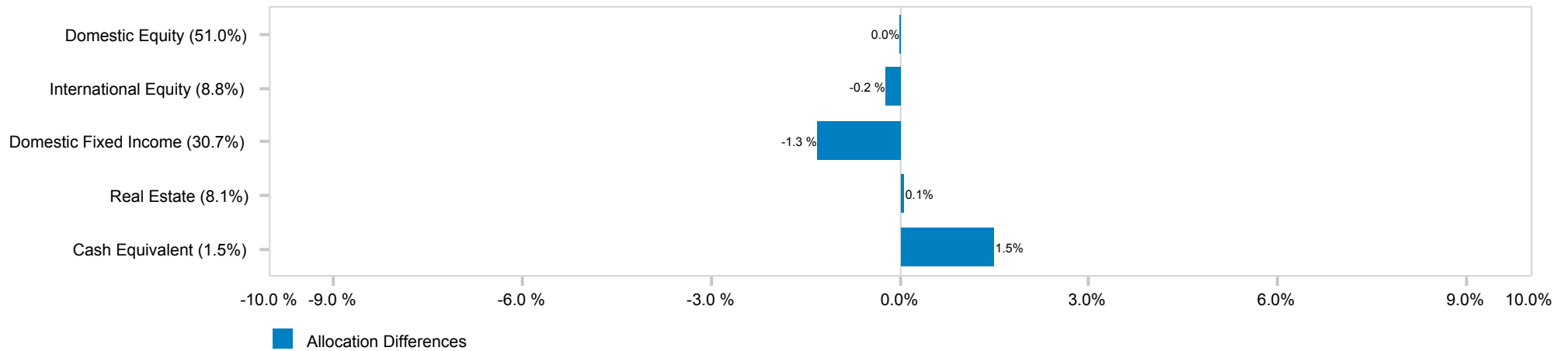


Executive Summary

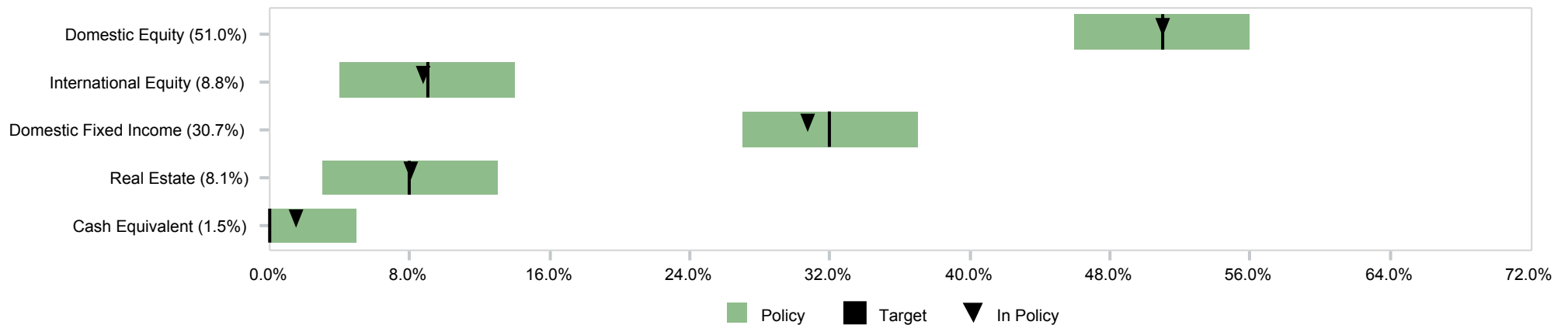


Asset Allocation Compliance

	Asset Allocation \$	Current Allocation (%)	Target Allocation (%)	Differences (%)	Target Rebal. (\$000)
Domestic Equity	80,617,866	51.0	51.0	0.0	19,053
International Equity	13,867,277	8.8	9.0	-0.2	362,768
Domestic Fixed Income	48,520,208	30.7	32.0	-1.3	2,075,506
Real Estate	12,749,281	8.1	8.0	0.1	-100,352
Cash Equivalent	2,356,974	1.5	0.0	1.5	-2,356,974
Total Fund	158,111,606	100.0	100.0	0.0	-

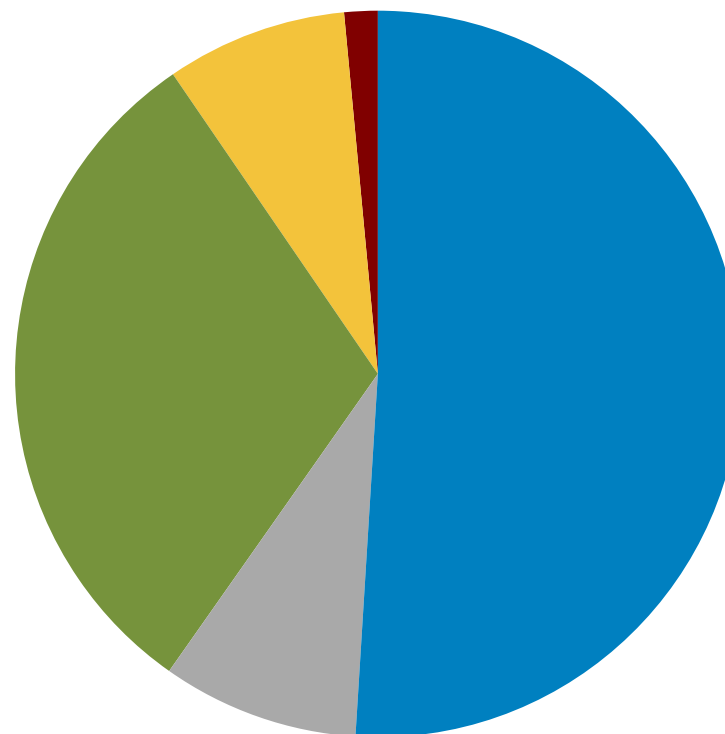
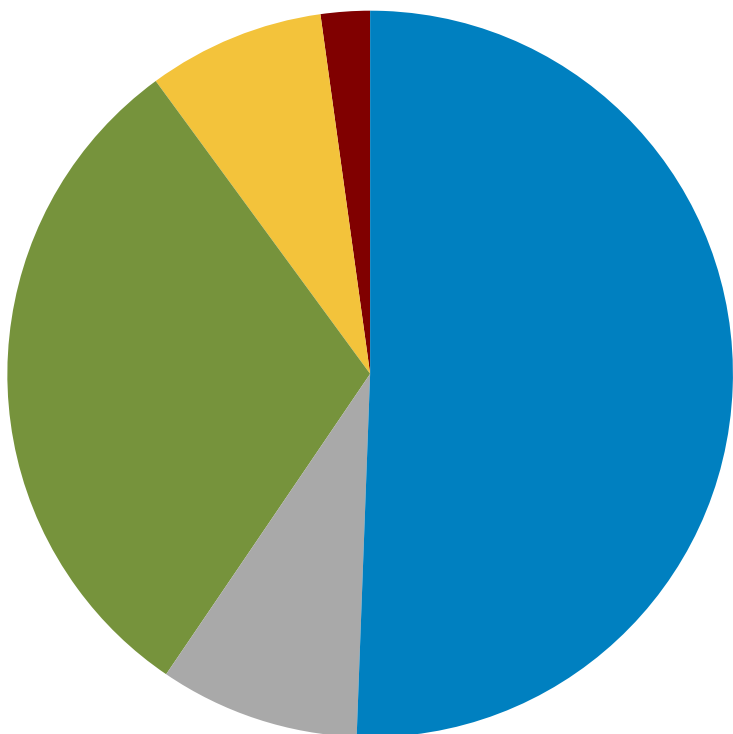


Executive Summary



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

Asset Allocation By Segment as of
 September 30, 2019 : \$158,111,606

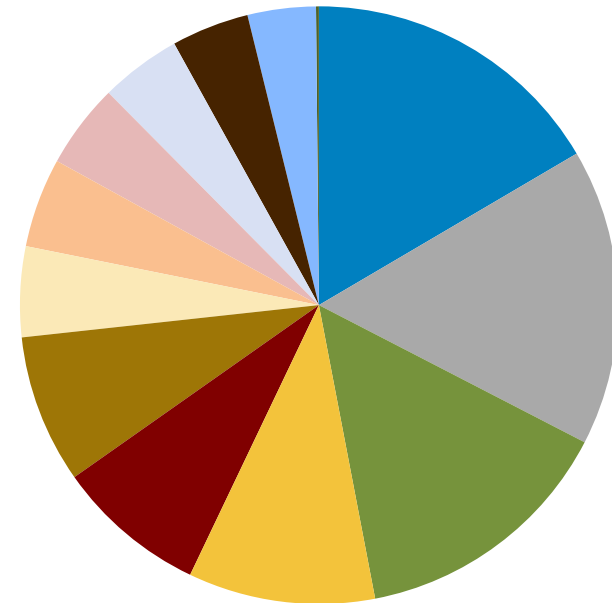
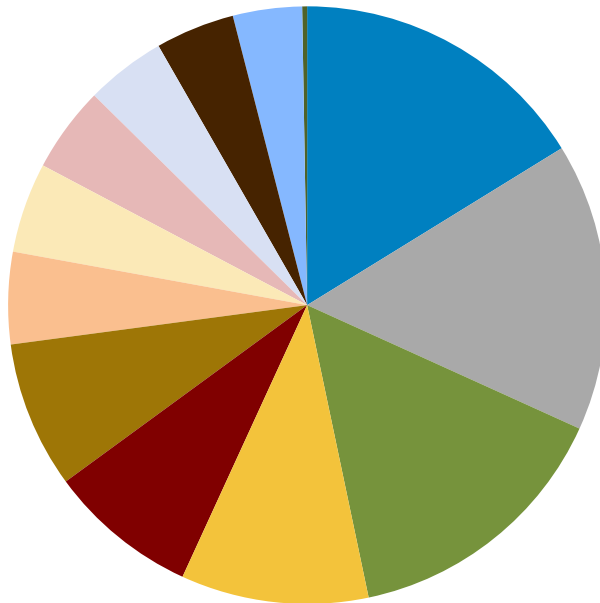


Allocation			Allocation		
Segments	Market Value	Allocation	Segments	Market Value	Allocation
■ Domestic Equity	79,769,676	50.6	■ Domestic Equity	80,617,866	51.0
■ International Equity	14,057,575	8.9	■ International Equity	13,867,277	8.8
■ Domestic Fixed Income	47,970,300	30.4	■ Domestic Fixed Income	48,520,208	30.7
■ Real Estate	12,421,345	7.9	■ Real Estate	12,749,281	8.1
■ Cash Equivalent	3,455,013	2.2	■ Cash Equivalent	2,356,974	1.5

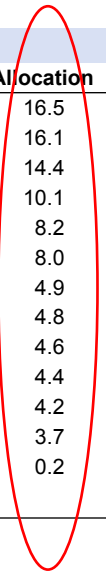


Asset Allocation By Manager as of
 June 30, 2019 : \$157,673,909

Asset Allocation By Manager as of
 September 30, 2019 : \$158,111,606



Allocation			Allocation		
	Market Value	Allocation		Market Value	Allocation
■ GHA A+ Fixed Income	25,541,850	16.2	■ GHA A+ Fixed Income	26,141,219	16.5
■ Ceredex Equity	24,564,875	15.6	■ Ceredex Equity	25,381,621	16.1
■ GHA EXCL A+ Fixed Income	23,531,190	14.9	■ GHA EXCL A+ Fixed Income	22,772,900	14.4
■ Mutual of America Equity	15,984,449	10.1	■ Mutual of America Equity	15,966,814	10.1
■ Polen Capital	12,791,507	8.1	■ Polen Capital	12,890,756	8.2
■ Rhumblin R1000G	12,518,817	7.9	■ Rhumblin R1000G	12,705,408	8.0
■ Vanguard R2000 (VRTIX)	7,846,879	5.0	■ Great Lakes SMID Cap	7,731,454	4.9
■ Great Lakes SMID Cap	7,690,635	4.9	■ Vanguard R2000 (VRTIX)	7,659,036	4.8
■ Vanguard Intl Eq (VTMGX)	7,303,182	4.6	■ Vanguard Intl Eq (VTMGX)	7,230,878	4.6
■ Barings Real Estate	6,836,373	4.3	■ Barings Real Estate	6,914,565	4.4
■ JPM International Equity	6,754,393	4.3	■ JPM International Equity	6,636,399	4.2
■ ASB Real Estate	5,884,972	3.7	■ ASB Real Estate	5,834,716	3.7
■ R&D Cash	424,787	0.3	■ R&D Cash	245,840	0.2



Comparative Performance Trailing Returns

	QTR	YTD	FYTD	1 YR	3 YR	5 YR	Inception	Inception Date
Total Fund Composite (Gross)	1.26 (20)	13.64 (60)	3.94 (58)	3.94 (58)	7.95 (57)	6.75 (34)	6.30 (61)	01/01/1998
Total Fund Policy Index	0.92 (49)	13.88 (50)	4.31 (41)	4.31 (41)	8.03 (53)	6.89 (27)	6.40 (58)	
Difference	0.34	-0.24	-0.37	-0.37	-0.08	-0.14	-0.10	
All Public Plans-Total Fund Median	0.92	13.85	4.14	4.14	8.11	6.40	6.48	
Total Fund Composite (Net)	1.17	13.37	3.60	3.60	7.58	6.39	5.95	01/01/1998
Total Fund Policy Index	0.92	13.88	4.31	4.31	8.03	6.89	6.40	
Difference	0.25	-0.51	-0.71	-0.71	-0.45	-0.50	-0.45	
Total Equity Composite (Gross)	0.98	19.49	1.68	1.68	11.10	8.99	6.18	01/01/1998
Total Equity Policy Index	0.37	18.58	0.83	0.83	11.07	9.01	6.93	
Difference	0.61	0.91	0.85	0.85	0.03	-0.02	-0.75	
Total Domestic Equity								
Ceredex Equity (Gross)	3.97 (5)	21.01 (18)	4.95 (26)	4.95 (26)	11.01 (40)	8.58 (41)	12.85 (43)	01/01/2012
Russell 1000 Value Index	1.36 (59)	17.81 (49)	4.00 (37)	4.00 (37)	9.43 (69)	7.79 (61)	12.25 (62)	
Difference	2.61	3.20	0.95	0.95	1.58	0.79	0.60	
IM U.S. Large Cap Value Equity (SA+CF) Median	1.66	17.56	2.21	2.21	10.45	8.11	12.63	
Ceredex Equity (Net)	3.84	20.52	4.39	4.39	10.41	7.98	12.23	01/01/2012
Russell 1000 Value Index	1.36	17.81	4.00	4.00	9.43	7.79	12.25	
Difference	2.48	2.71	0.39	0.39	0.98	0.19	-0.02	
Polen Capital (Gross)	0.94 (47)	25.41 (22)	9.69 (13)	9.69 (13)	N/A	N/A	19.42 (5)	01/01/2018
Russell 1000 Growth Index	1.49 (32)	23.30 (39)	3.71 (56)	3.71 (56)	16.89 (39)	13.39 (39)	11.73 (51)	
Difference	-0.55	2.11	5.98	5.98	N/A	N/A	7.69	
IM U.S. Large Cap Growth Equity (SA+CF) Median	0.83	22.42	4.30	4.30	16.23	12.83	11.80	
Polen Capital (Net)	0.79	24.85	9.03	9.03	N/A	N/A	18.79	01/01/2018
Russell 1000 Growth Index	1.49	23.30	3.71	3.71	16.89	13.39	11.73	
Difference	-0.70	1.55	5.32	5.32	N/A	N/A	7.06	
Rhumblin R1000G (Gross)	1.49 (32)	23.28 (39)	3.71 (56)	3.71 (56)	N/A	N/A	11.73 (51)	01/01/2018
Russell 1000 Growth Index	1.49 (32)	23.30 (39)	3.71 (56)	3.71 (56)	16.89 (39)	13.39 (39)	11.73 (51)	
Difference	0.00	-0.02	0.00	0.00	N/A	N/A	0.00	
IM U.S. Large Cap Growth Equity (SA+CF) Median	0.83	22.42	4.30	4.30	16.23	12.83	11.80	
Rhumblin R1000G (Net)	1.49	23.25	3.67	3.67	N/A	N/A	11.70	01/01/2018
Russell 1000 Growth Index	1.49	23.30	3.71	3.71	16.89	13.39	11.73	
Difference	0.00	-0.05	-0.04	-0.04	N/A	N/A	-0.03	

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



Comparative Performance

Total Fund

As of September 30, 2019

	QTR	YTD	FYTD	1 YR	3 YR	5 YR	Inception	Inception Date
Mutual of America Equity (Gross)	-0.10 (52)	17.82 (76)	-2.50 (73)	-2.50 (73)	9.33 (58)	8.84 (45)	9.83 (24)	04/01/2008
S&P MidCap 400 Index	-0.09 (52)	17.87 (76)	-2.49 (73)	-2.49 (73)	9.38 (57)	8.88 (45)	9.94 (22)	
Difference	-0.01	-0.05	-0.01	-0.01	-0.05	-0.04	-0.11	
IM U.S. Mid Cap Equity (MF) Median	0.03	21.31	1.37	1.37	10.31	8.36	8.76	
Mutual of America Equity (Net)	-0.10	17.80	-2.53	-2.53	9.26	8.77	9.75	04/01/2008
S&P MidCap 400 Index	-0.09	17.87	-2.49	-2.49	9.38	8.88	9.94	
Difference	-0.01	-0.07	-0.04	-0.04	-0.12	-0.11	-0.19	
Great Lakes SMID Cap (Gross)	0.68 (27)	14.60 (98)	-5.51 (75)	-5.51 (75)	N/A	N/A	-6.43 (82)	09/01/2018
Russell 2500 Index	-1.28 (75)	17.72 (68)	-4.04 (60)	-4.04 (60)	9.51 (76)	8.57 (75)	-5.09 (68)	
Difference	1.96	-3.12	-1.47	-1.47	N/A	N/A	-1.34	
IM U.S. SMID Cap Core Equity (SA+CF) Median	-0.33	19.70	-2.99	-2.99	10.04	9.64	-3.60	
Great Lakes SMID Cap (Net)	0.55	14.14	-5.94	-5.94	N/A	N/A	-6.83	09/01/2018
Russell 2500 Index	-1.28	17.72	-4.04	-4.04	9.51	8.57	-5.09	
Difference	1.83	-3.58	-1.90	-1.90	N/A	N/A	-1.74	
Vanguard R2000 (VRTIX) (Net)	-2.39 (80)	14.22 (21)	-8.83 (35)	-8.83 (35)	N/A	N/A	-10.21 (35)	09/01/2018
Russell 2000 Index	-2.40 (80)	14.18 (22)	-8.89 (35)	-8.89 (35)	8.23 (33)	8.19 (39)	-10.27 (35)	
Difference	0.01	0.04	0.06	0.06	N/A	N/A	0.06	
IM U.S. Small Cap Core Equity (MF) Median	-0.92	12.64	-9.88	-9.88	7.03	7.40	-11.57	
Total International Equity								
Vanguard Intl Eq (VTMGX) (Net)	-0.99 (25)	12.63 (39)	-2.08 (52)	-2.08 (52)	6.27 (35)	3.61 (35)	5.36 (30)	07/01/2013
MSCI EAFE Index	-1.00 (25)	13.35 (33)	-0.82 (41)	-0.82 (41)	7.01 (24)	3.77 (32)	5.61 (26)	
Difference	0.01	-0.72	-1.26	-1.26	-0.74	-0.16	-0.25	
IM International Equity (MF) Median	-1.90	11.44	-1.94	-1.94	5.44	2.81	4.47	
JPM International Equity (Net)	-1.75 (48)	18.04 (12)	6.53 (9)	6.53 (9)	6.86 (44)	N/A	7.74 (50)	10/01/2015
MSCI EAFE Index	-1.00 (31)	13.35 (37)	-0.82 (43)	-0.82 (43)	7.01 (41)	3.77 (56)	7.02 (61)	
Difference	-0.75	4.69	7.35	7.35	-0.15	N/A	0.72	
IM International Equity (SA+CF) Median	-1.83	11.88	-1.55	-1.55	6.53	4.09	7.73	

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



Comparative Performance

Total Fund

As of September 30, 2019

	QTR	YTD	FYTD	1 YR	3 YR	5 YR	Inception	Inception Date
Total Fixed Income Composite	2.01	6.26	7.74	7.74	2.84	3.36	5.61	01/01/1998
Total Fixed Income Policy Index	1.74	7.00	8.97	8.97	2.49	2.91	4.42	
Difference	0.27	-0.74	-1.23	-1.23	0.35	0.45	1.19	
GHA A+ Fixed Income (Gross)	2.42 (32)	6.98 (98)	8.45 (97)	8.45 (97)	3.07 (76)	3.65 (59)	5.65 (3)	01/01/2007
Blmbg. Barc. U.S. Aggregate: A+	2.11 (89)	7.60 (96)	9.78 (88)	9.78 (88)	2.58 (98)	3.13 (98)	4.10 (96)	
Difference	0.31	-0.62	-1.33	-1.33	0.49	0.52	1.55	
IM U.S. Broad Market Core Fixed Income (SA+CF) Median	2.33	8.99	10.47	10.47	3.35	3.72	4.84	
GHA A+ Fixed Income (Net)	2.36	6.78	8.18	8.18	2.81	3.39	5.39	01/01/2007
Blmbg. Barc. U.S. Aggregate: A+	2.11	7.60	9.78	9.78	2.58	3.13	4.10	
Difference	0.25	-0.82	-1.60	-1.60	0.23	0.26	1.29	
GHA EXCL A+ Fixed Income (Gross)	1.55 (24)	5.49 (85)	6.99 (86)	6.99 (86)	2.60 (59)	3.05 (33)	5.35 (9)	01/01/1998
Bloomberg Barclays Intermediate US Govt/Credit Idx	1.37 (63)	6.41 (60)	8.17 (39)	8.17 (39)	2.40 (86)	2.68 (82)	4.50 (88)	
Difference	0.18	-0.92	-1.18	-1.18	0.20	0.37	0.85	
IM U.S. Intermediate Duration (SA+CF) Median	1.42	6.51	8.04	8.04	2.63	2.92	4.80	
GHA EXCL A+ Fixed Income (Net)	1.49	5.29	6.74	6.74	2.45	2.96	5.33	01/01/1998
Bloomberg Barclays Intermediate US Govt/Credit Idx	1.37	6.41	8.17	8.17	2.40	2.68	4.50	
Difference	0.12	-1.12	-1.43	-1.43	0.05	0.28	0.83	
Total Real Estate (Gross)	0.49 (100)	4.20 (87)	5.81 (91)	5.81 (91)	N/A	N/A	6.59 (N/A)	06/01/2017
NCREIF Fund Index-Open End Diversified Core (EW)	1.38 (85)	4.47 (83)	6.16 (89)	6.16 (89)	7.59 (84)	9.59 (71)	8.02 (N/A)	
Difference	-0.89	-0.27	-0.35	-0.35	N/A	N/A	-1.43	
IM U.S. Open End Private Real Estate (SA+CF) Median	1.75	5.37	6.88	6.88	8.42	9.92	N/A	
Barings Real Estate (Gross)	1.39 (85)	5.35 (53)	7.06 (39)	7.06 (39)	N/A	N/A	7.61 (78)	07/01/2017
NCREIF Fund Index-Open End Diversified Core (EW)	1.38 (85)	4.47 (83)	6.16 (89)	6.16 (89)	7.59 (84)	9.59 (71)	7.51 (80)	
Difference	0.01	0.88	0.90	0.90	N/A	N/A	0.10	
IM U.S. Open End Private Real Estate (SA+CF) Median	1.75	5.37	6.88	6.88	8.42	9.92	8.36	
Barings Real Estate (Net)	1.14	4.59	6.04	6.04	N/A	N/A	6.51	07/01/2017
NCREIF Fund Index-Open End Diversified Core (EW)	1.38	4.47	6.16	6.16	7.59	9.59	7.51	
Difference	-0.24	0.12	-0.12	-0.12	N/A	N/A	-1.00	
ASB Real Estate (Gross)	-0.55 (100)	2.86 (94)	4.35 (94)	4.35 (94)	N/A	N/A	5.94 (95)	07/01/2017
NCREIF Fund Index-Open End Diversified Core (EW)	1.38 (85)	4.47 (83)	6.16 (89)	6.16 (89)	7.59 (84)	9.59 (71)	7.51 (80)	
Difference	-1.93	-1.61	-1.81	-1.81	N/A	N/A	-1.57	
IM U.S. Open End Private Real Estate (SA+CF) Median	1.75	5.37	6.88	6.88	8.42	9.92	8.36	
ASB Real Estate (Net)	-0.85	1.92	3.08	3.08	N/A	N/A	4.64	07/01/2017
NCREIF Fund Index-Open End Diversified Core (EW)	1.38	4.47	6.16	6.16	7.59	9.59	7.51	
Difference	-2.23	-2.55	-3.08	-3.08	N/A	N/A	-2.87	

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)	3.94 (58)	8.38 (39)	11.66 (48)	9.56 (44)	0.60 (20)	9.19 (59)	13.87 (16)	18.40 (28)	1.31 (17)
Total Fund Policy Index	4.31 (41)	9.00 (29)	10.90 (70)	10.01 (28)	0.59 (20)	9.47 (52)	13.44 (22)	18.12 (35)	1.19 (18)
Difference	-0.37	-0.62	0.76	-0.45	0.01	-0.28	0.43	0.28	0.12
All Public Plans-Total Fund Median	4.14	7.86	11.60	9.29	-0.63	9.52	11.72	17.46	-0.32
Total Fund Composite (Net)	3.60	8.01	11.28	9.25	0.22	8.71	13.36	17.84	0.85
Total Fund Policy Index	4.31	9.00	10.90	10.01	0.59	9.47	13.44	18.12	1.19
Difference	-0.71	-0.99	0.38	-0.76	-0.37	-0.76	-0.08	-0.28	-0.34
Total Equity Composite (Gross)	1.68	13.02	19.33	13.45	-1.15	12.14	23.86	25.54	-0.21
Total Equity Policy Index	0.83	14.65	18.53	13.79	-1.26	13.94	24.01	27.57	-1.42
Difference	0.85	-1.63	0.80	-0.34	0.11	-1.80	-0.15	-2.03	1.21
Total Domestic Equity									
Ceredex Equity (Gross)	4.95 (26)	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	4.00 (37)	9.45 (77)	15.12 (75)	16.19 (26)	-4.42 (65)	18.89 (42)	22.30 (60)	30.92 (26)	-1.89 (62)
Difference	0.95	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	2.21	11.72	17.89	13.33	-3.29	18.40	23.73	28.15	-0.98
Ceredex Equity (Net)	4.39	10.15	17.06	15.91	-5.89	16.50	25.93	N/A	N/A
Russell 1000 Value Index	4.00	9.45	15.12	16.19	-4.42	18.89	22.30	30.92	-1.89
Difference	0.39	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 (71)	17.32 (60)	12.80 (99)	27.88 (50)	3.11 (36)
Russell 1000 Growth Index	3.71 (56)	26.30 (36)	21.94 (37)	13.76 (23)	3.17 (54)	19.15 (40)	19.27 (64)	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	4.30	24.41	20.81	11.62	3.55	18.18	20.25	27.68	1.38
Polen Capital (Gross)	9.69 (13)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Russell 1000 Growth Index	3.71 (56)	26.30 (36)	21.94 (37)	13.76 (23)	3.17 (54)	19.15 (40)	19.27 (64)	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	4.30	24.41	20.81	11.62	3.55	18.18	20.25	27.68	1.38
Polen Capital (Net)	9.03 (16)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Russell 1000 Growth Index	3.71 (56)	26.30 (36)	21.94 (37)	13.76 (23)	3.17 (54)	19.15 (40)	19.27 (64)	29.19 (39)	3.78 (30)
Difference	5.32	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	4.30	24.41	20.81	11.62	3.55	18.18	20.25	27.68	1.38

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



Comparative Performance

Total Fund

As of September 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)	3.71 (56)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Russell 1000 Growth Index	3.71 (56)	26.30 (36)	21.94 (37)	13.76 (23)	3.17 (54)	19.15 (40)	19.27 (64)	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	4.30	24.41	20.81	11.62	3.55	18.18	20.25	27.68	1.38
Rhumblin R1000G (Net)	3.67	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Russell 1000 Growth Index	3.71	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)	-2.50 (73)	14.25 (46)	17.31 (41)	15.25 (15)	1.41 (37)	11.52 (52)	27.64 (43)	28.61 (27)	-1.27 (39)
S&P MidCap 400 Index	-2.49 (73)	14.21 (47)	17.52 (39)	15.33 (14)	1.40 (37)	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	1.37	13.42	16.49	10.59	-0.36	11.70	27.10	25.56	-2.55
Mutual of America Equity (Net)	-2.53	14.15	17.23	15.17	1.35	11.48	27.55	28.54	-1.32
S&P MidCap 400 Index	-2.49	14.21	17.52	15.33	1.40	11.82	27.68	28.54	-1.28
Difference	-0.04	-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	-4.04 (36)	16.19 (13)	17.79 (77)	14.44 (61)	0.38 (55)	8.97 (31)	29.79 (64)	30.93 (52)	-2.22 (42)
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	-6.34	9.10	20.57	15.63	0.79	6.96	31.00	31.11	-2.88
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	-4.04	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)	-5.51 (75)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Russell 2500 Index	-4.04 (60)	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	-1.47	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	-2.99	16.28	18.86	12.61	2.28	11.29	30.27	30.24	-0.86
Great Lakes SMID Cap (Net)	-5.94	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Russell 2500 Index	-4.04	16.19	17.79	14.44	0.38	8.97	29.79	30.93	-2.22
Difference	-1.90	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Vanguard R2000 (VRTIX) (Net)	-8.83 (35)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Russell 2000 Index	-8.89 (35)	15.24 (25)	20.74 (33)	15.47 (35)	1.25 (41)	3.93 (65)	30.06 (43)	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	-9.88	11.79	19.59	13.84	0.21	4.81	29.01	28.84	-4.10

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



**Comparative Performance
Total Fund**

As of September 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)	-2.08 (52)	2.78 (24)	19.25 (52)	8.03 (59)	-7.90 (45)	4.01 (54)	N/A	N/A	N/A
MSCI EAFE Index	-0.82 (41)	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	-1.26	-0.47	-0.40	0.97	0.37	-0.69	N/A	N/A	N/A
IM International Equity (MF) Median	-1.94	0.08	19.36	9.32	-8.75	4.26	17.81	16.20	-12.08
JPM International Equity (Net)	6.53 (9)	-3.43 (85)	18.60 (70)	10.45 (56)	N/A	N/A	N/A	N/A	N/A
MSCI EAFE Index	-0.82 (43)	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	7.35	-6.68	-1.05	3.39	N/A	N/A	N/A	N/A	N/A
IM International Equity (SA+CF) Median	-1.55	1.36	21.05	11.48	-8.39	5.80	20.15	17.29	-9.60

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



Comparative Performance

Total Fund

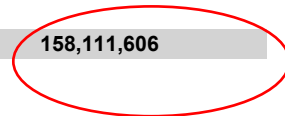
As of September 30, 2019

	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)	7.74	0.58	0.36	4.79	3.51	5.32	0.01	10.47	3.21
Total Fixed Income Policy Index	8.97	-1.12	-0.09	4.01	3.06	2.79	-1.09	4.40	4.35
Difference	-1.23	1.70	0.45	0.78	0.45	2.53	1.10	6.07	-1.14
GHA A+ Fixed Income (Gross)	8.45 (97)	0.74 (4)	0.23 (72)	5.53 (62)	3.53 (12)	5.87 (12)	-0.17 (14)	10.68 (3)	4.02 (92)
Blmbg. Barc. U.S. Aggregate: A+	9.78 (88)	-1.28 (95)	-0.42 (100)	4.50 (96)	3.44 (17)	3.39 (96)	-1.68 (79)	4.40 (98)	5.30 (47)
Difference	-1.33	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	10.47	-0.73	0.63	5.67	3.02	4.51	-1.23	6.61	5.26
GHA A+ Fixed Income (Net)	8.18	0.48	-0.02	5.27	3.27	5.62	-0.43	10.42	3.77
Blmbg. Barc. U.S. Aggregate: A+	9.78	-1.28	-0.42	4.50	3.44	3.39	-1.68	4.40	5.30
Difference	-1.60	1.76	0.40	0.77	-0.17	2.23	1.25	6.02	-1.53
GHA EXCL A+ Fixed Income (Gross)	6.99 (86)	0.42 (13)	0.52 (67)	4.03 (42)	3.45 (7)	4.56 (11)	0.18 (26)	9.98 (4)	2.13 (96)
Bloomberg Barclays Intermediate US Govt/Credit Idx	8.17 (39)	-0.96 (96)	0.23 (88)	3.52 (77)	2.68 (52)	2.20 (85)	-0.50 (66)	4.40 (81)	3.40 (62)
Difference	-1.18	1.38	0.29	0.51	0.77	2.36	0.68	5.58	-1.27
IM U.S. Intermediate Duration (SA+CF) Median	8.04	-0.39	0.69	3.90	2.70	2.88	-0.27	5.57	3.61
GHA EXCL A+ Fixed Income (Net)	6.74	0.22	0.52	4.03	3.45	4.56	0.18	9.98	2.13
Bloomberg Barclays Intermediate US Govt/Credit Idx	8.17	-0.96	0.23	3.52	2.68	2.20	-0.50	4.40	3.40
Difference	-1.43	1.18	0.29	0.51	0.77	2.36	0.68	5.58	-1.27
Total Real Estate (Gross)	5.81 (91)	7.85 (78)	N/A	N/A	N/A	N/A	N/A	N/A	N/A
NCREIF Fund Index-Open End Diversified Core (EW)	6.16 (89)	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	-0.35	-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	6.88	9.04	8.29	11.32	15.45	12.78	13.18	12.87	16.96
Barings Real Estate (Gross)	7.06 (39)	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)	6.16 (89)	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	0.90	-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	6.88	9.04	8.29	11.32	15.45	12.78	13.18	12.87	16.96
Barings Real Estate (Net)	6.04	6.36	N/A	N/A	N/A	N/A	N/A	N/A	N/A
NCREIF Fund Index-Open End Diversified Core (EW)	6.16	8.82	7.81	10.62	14.71	12.39	12.47	11.77	18.03
Difference	-0.12	-2.46	N/A	N/A	N/A	N/A	N/A	N/A	N/A
ASB Real Estate (Gross)	4.35 (94)	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)	6.16 (89)	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	-1.81	-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	6.88	9.04	8.29	11.32	15.45	12.78	13.18	12.87	16.96
ASB Real Estate (Net)	3.08	6.92	N/A	N/A	N/A	N/A	N/A	N/A	N/A
NCREIF Fund Index-Open End Diversified Core (EW)	6.16	8.82	7.81	10.62	14.71	12.39	12.47	11.77	18.03
Difference	-3.08	-1.90	N/A	N/A	N/A	N/A	N/A	N/A	N/A

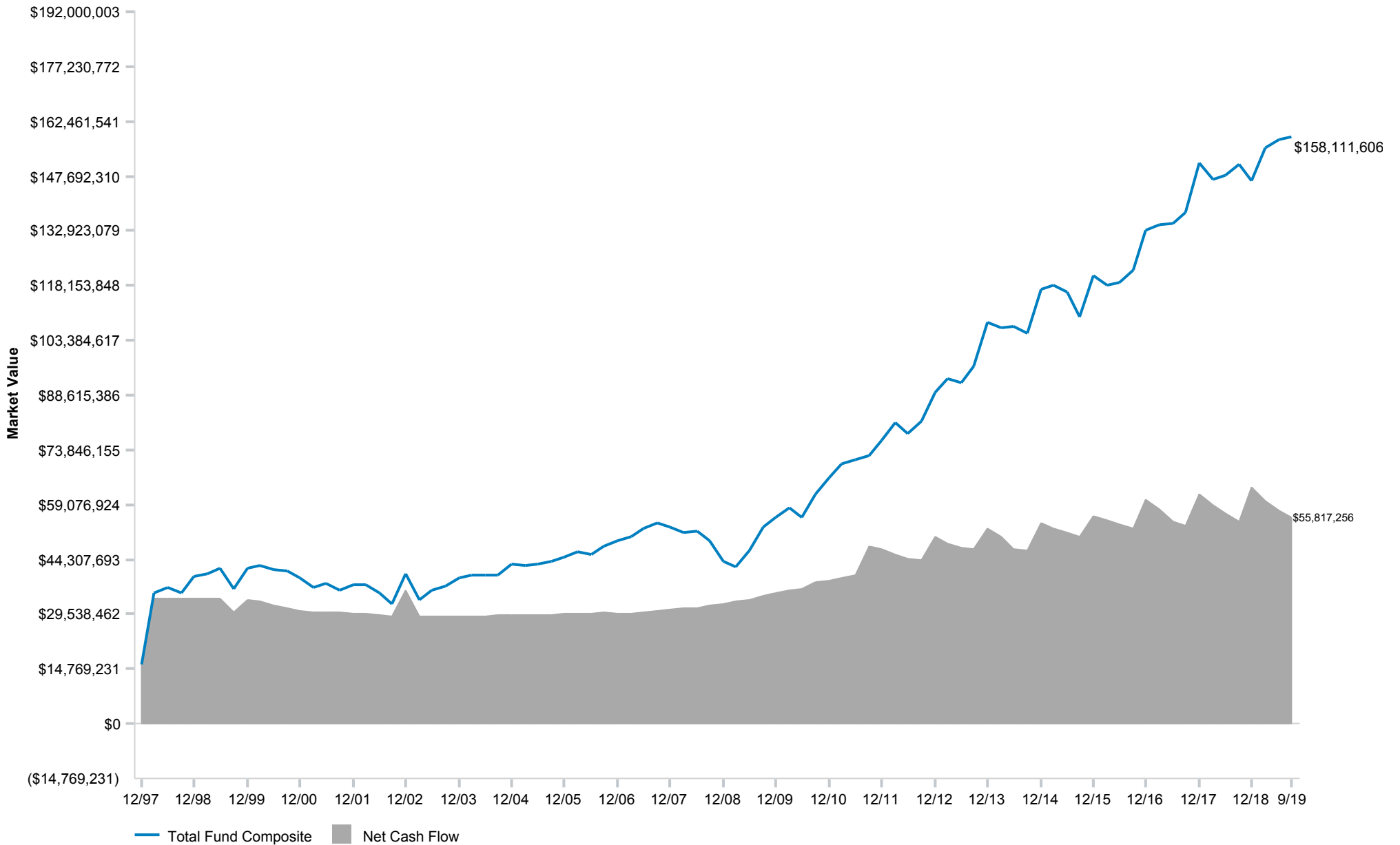
Returns for periods greater than one year are annualized. Returns are expressed as percentages.



Financial Reconciliation Quarter to Date					
	Market Value 07/01/2019	Apprec./ Deprec.	Income	Management Fees	Market Value 09/30/2019
Ceredex Equity	24,564,875	816,756	154,975	-33,033	25,381,621
Polen Capital	12,791,507	101,589	18,666	-19,135	12,890,756
Rhumblin R1000G	12,518,817	186,591	-	-	12,705,408
Mutual of America Equity	15,984,449	-85,107	69,810	-	15,966,814
Great Lakes SMID Cap	7,690,635	22,710	29,779	-10,546	7,731,454
Vanguard R2000 (VRTIX)	7,846,879	-218,710	30,867	-	7,659,036
Vanguard Intl Eq (VTMGX)	7,303,182	-120,156	47,852	-	7,230,878
JPM International Equity	6,754,393	-117,995	-	-	6,636,399
GHA A+ Fixed Income	25,541,850	420,451	198,718	-15,961	26,141,219
GHA EXCL A+ Fixed Income	23,531,190	190,385	165,613	-14,698	22,772,900
Barings Real Estate	6,836,373	39,045	55,810	-16,664	6,914,565
ASB Real Estate	5,884,972	-66,622	34,122	-17,756	5,834,716
R&D Cash	424,787	-	2,291	-	245,840
Total Fund Composite	157,673,909	1,168,937	808,504	-127,792	158,111,606



Schedule of Investable Assets



Schedule of Investable Assets
Total Fund
Since Inception Ending September 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 September 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 September 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
Sep-2019	157,673,909	2,823,219	4,362,964	-1,539,745	1,977,441	158,111,606	1.26
	15,998,300	271,703,421	231,884,464	39,818,956	102,294,349	158,111,606	6.30



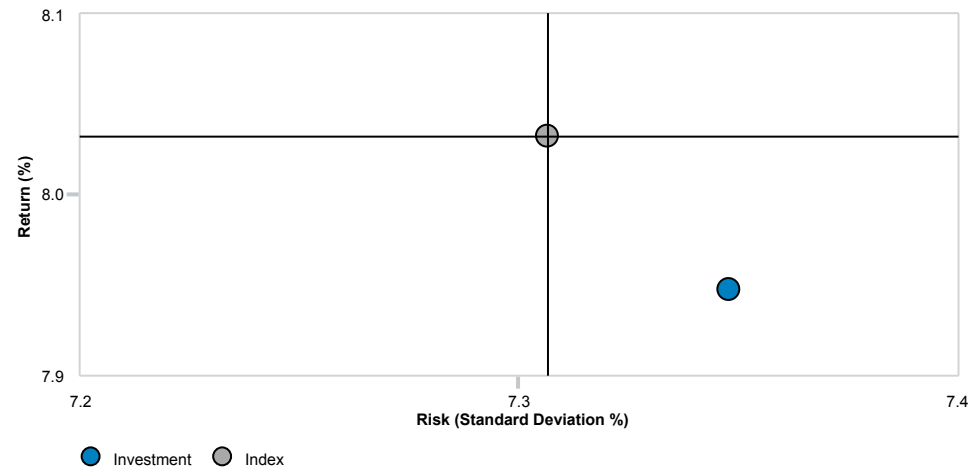
Historical Statistics 3 Years

	Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters
Investment	7.95	7.35	0.87	100.11	10	101.44	2
Index	8.03	7.31	0.89	100.00	10	100.00	2

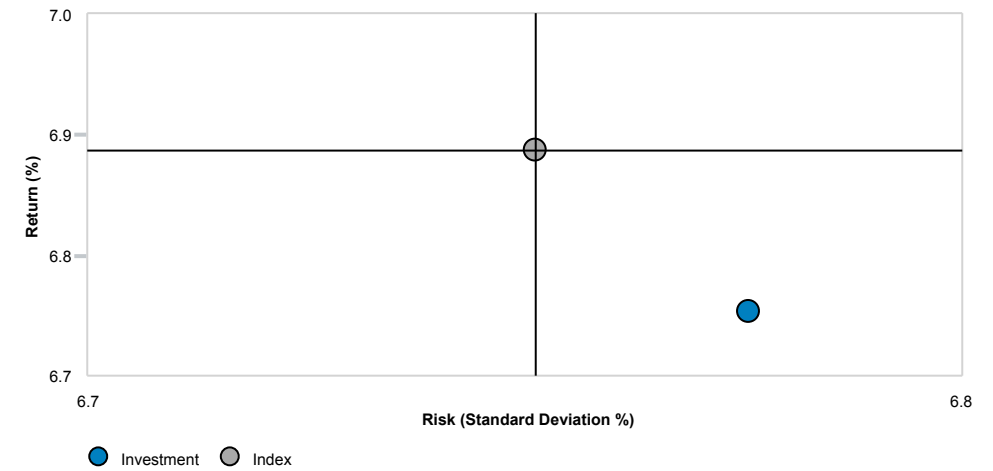
Historical Statistics 5 Years

	Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters
Investment	6.75	6.78	0.87	100.27	16	105.46	4
Index	6.89	6.75	0.89	100.00	16	100.00	4

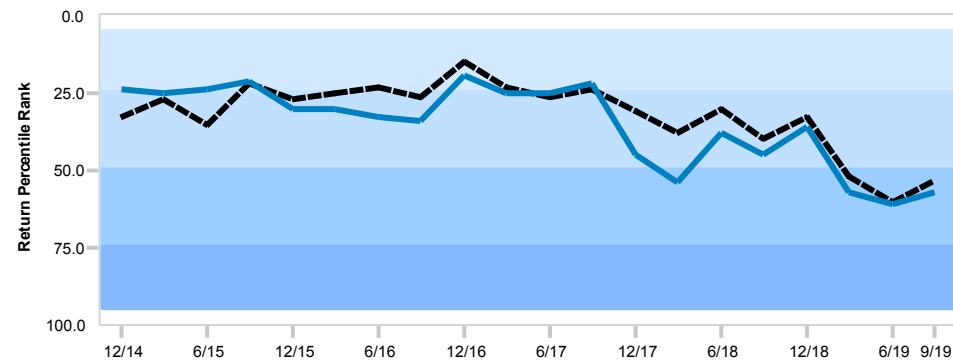
Risk and Return 3 Years



Risk and Return 5 Years

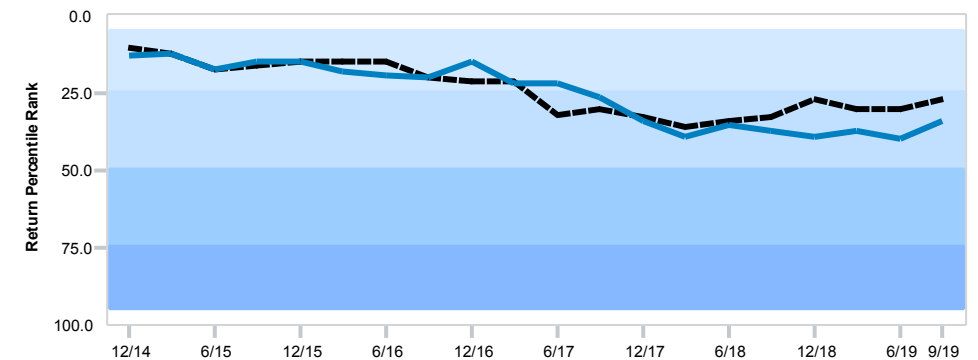


3 Year Rolling Percentile Rank All Public Plans-Total Fund



	Total Period	5-25 Count	25-Median Count	Median-75 Count	75-95 Count
Investment	20	8 (40%)	8 (40%)	4 (20%)	0 (0%)
Index	20	6 (30%)	11 (55%)	3 (15%)	0 (0%)

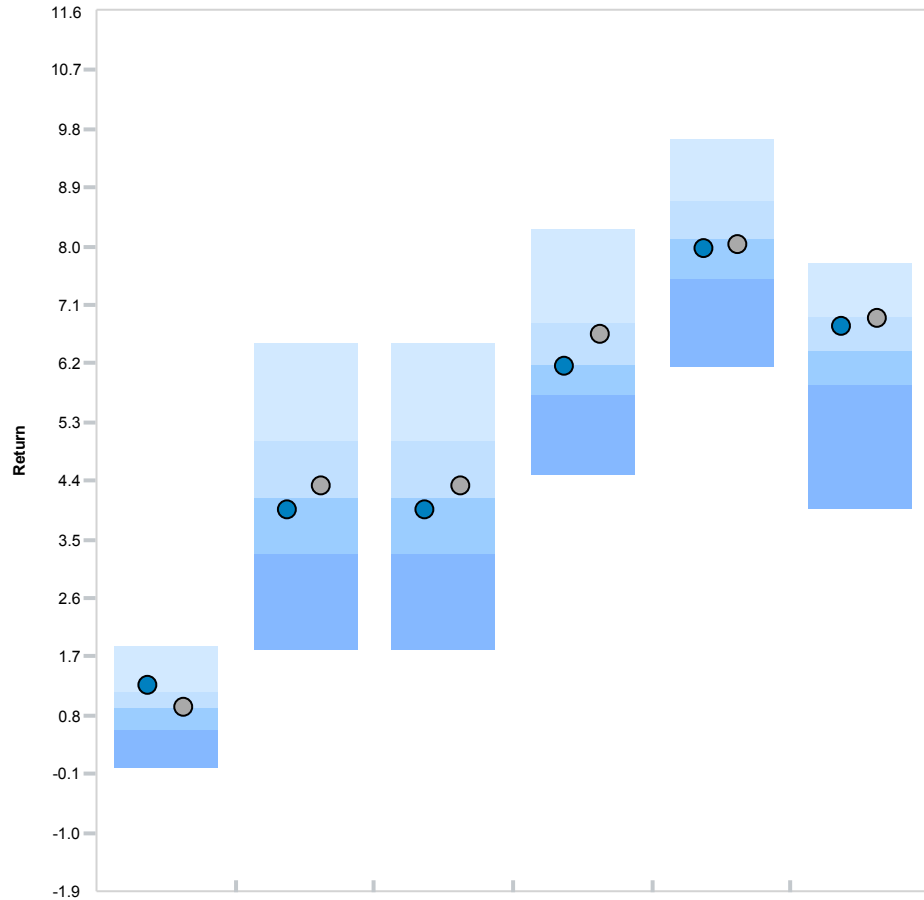
5 Year Rolling Percentile Rank All Public Plans-Total Fund



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

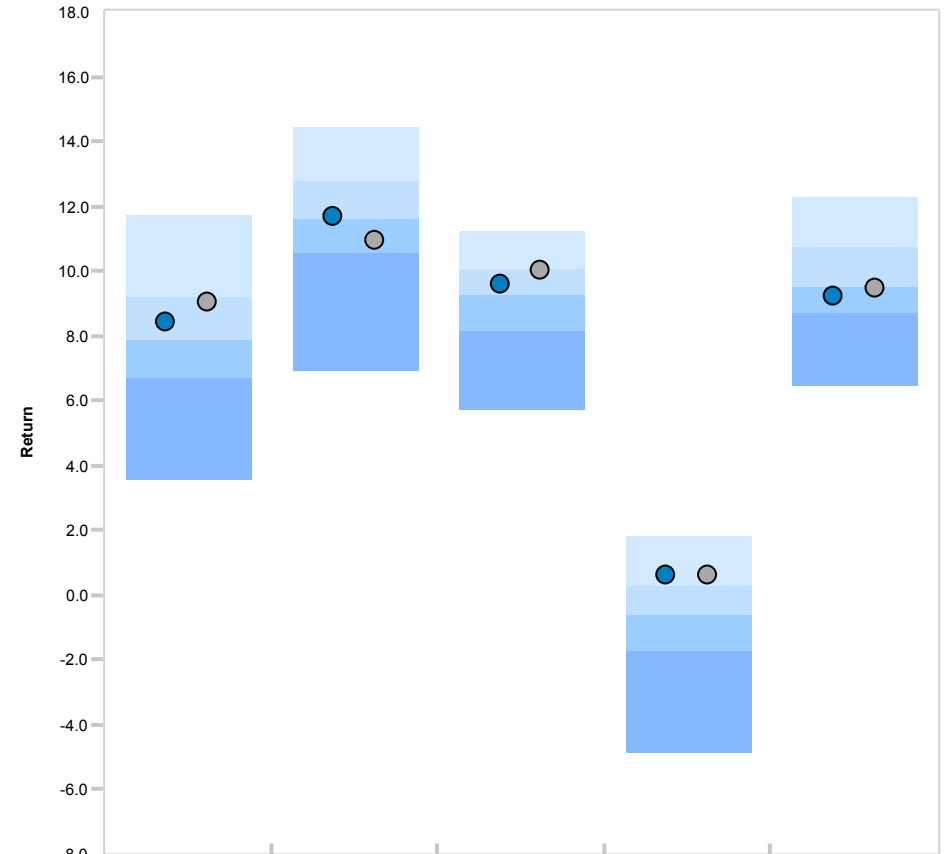


Plan Sponsor Peer Group Analysis vs. All Public Plans-Total Fund



	QTR	FYTD	1 YR	2 YR	3 YR	5 YR
● Investment	1.26 (20)	3.94 (58)	3.94 (58)	6.14 (56)	7.95 (57)	6.75 (34)
● Index	0.92 (49)	4.31 (41)	4.31 (41)	6.63 (31)	8.03 (53)	6.89 (27)
Median	0.92	4.14	4.14	6.19	8.11	6.40

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



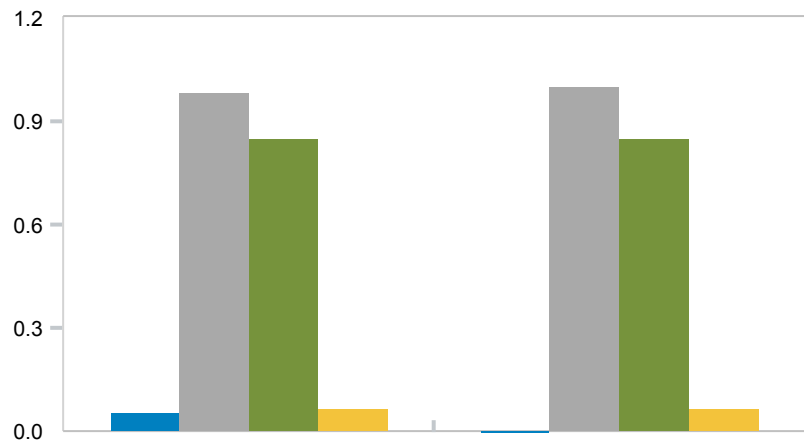
	4 Quarters Ending Sep-2018	4 Quarters Ending Sep-2017	4 Quarters Ending Sep-2016	4 Quarters Ending Sep-2015	4 Quarters Ending Sep-2014
● Investment	8.38 (39)	11.66 (48)	9.56 (44)	0.60 (20)	9.19 (59)
● Index	9.00 (29)	10.90 (70)	10.01 (28)	0.59 (20)	9.47 (52)
Median	7.86	11.60	9.29	-0.63	9.52

Comparative Performance

	1 Qtr Ending Jun-2019	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
Investment	3.15 (64)	8.81 (53)	-8.54 (58)	3.51 (30)	2.40 (7)	-0.90 (85)
Index	3.38 (41)	9.15 (40)	-8.40 (54)	3.45 (35)	2.16 (12)	-0.59 (65)
Median	3.29	8.88	-8.29	3.26	1.22	-0.49

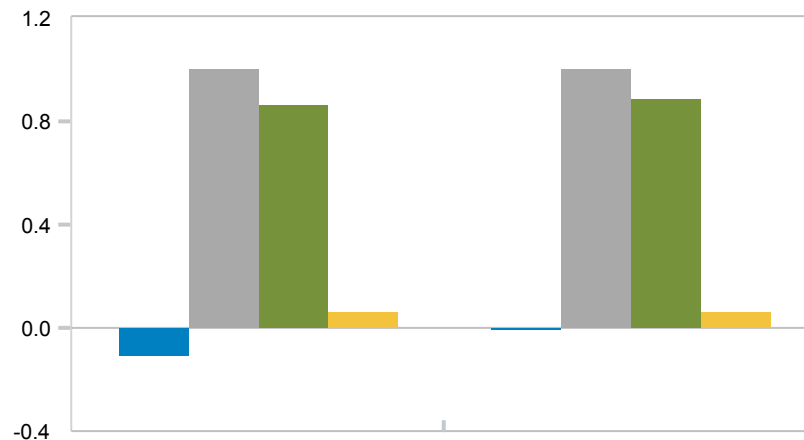


Risk / Reward Historical Statistics 3 Years Ending September 30, 2019



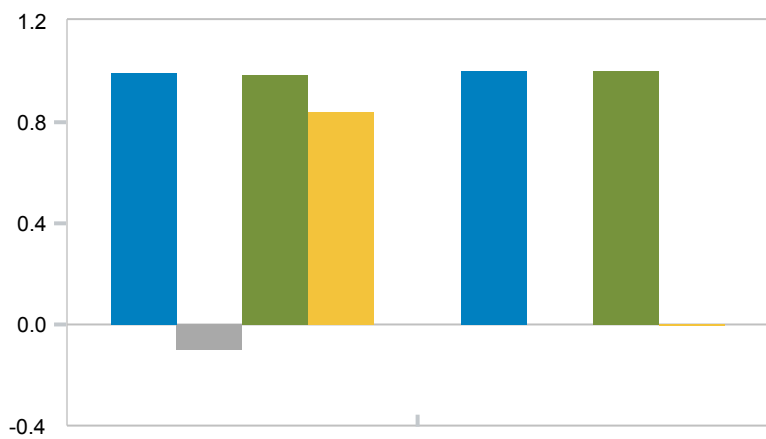
	Total Fund Composite	Total Fund Policy Index
Alpha	0.05	0.00
Beta	0.98	1.00
Sharpe Ratio	0.85	0.85
Treynor Ratio	0.07	0.07

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



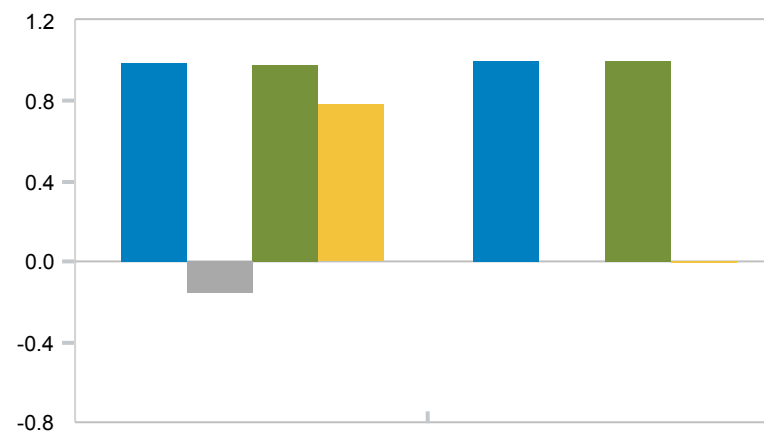
	Total Fund Composite	Total Fund Policy Index
Alpha	-0.10	0.00
Beta	1.00	1.00
Sharpe Ratio	0.87	0.89
Treynor Ratio	0.06	0.06

Benchmark Relative Historical Statistics 3 Years Ending September 30, 2019



	Total Fund Composite	Total Fund Policy Index
Actual Correlation	0.99	1.00
Information Ratio	-0.10	N/A
R-Squared	0.99	1.00
Tracking Error	0.84	0.00

Benchmark Relative Historical Statistics 5 Years Ending September 30, 2019

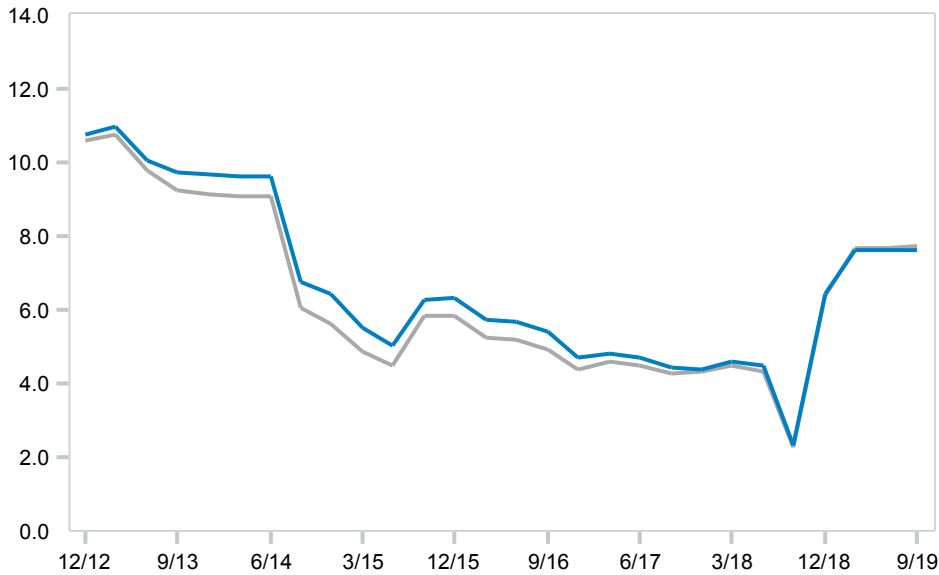


	Total Fund Composite	Total Fund Policy Index
Actual Correlation	0.99	1.00
Information Ratio	-0.16	N/A
R-Squared	0.99	1.00
Tracking Error	0.78	0.00

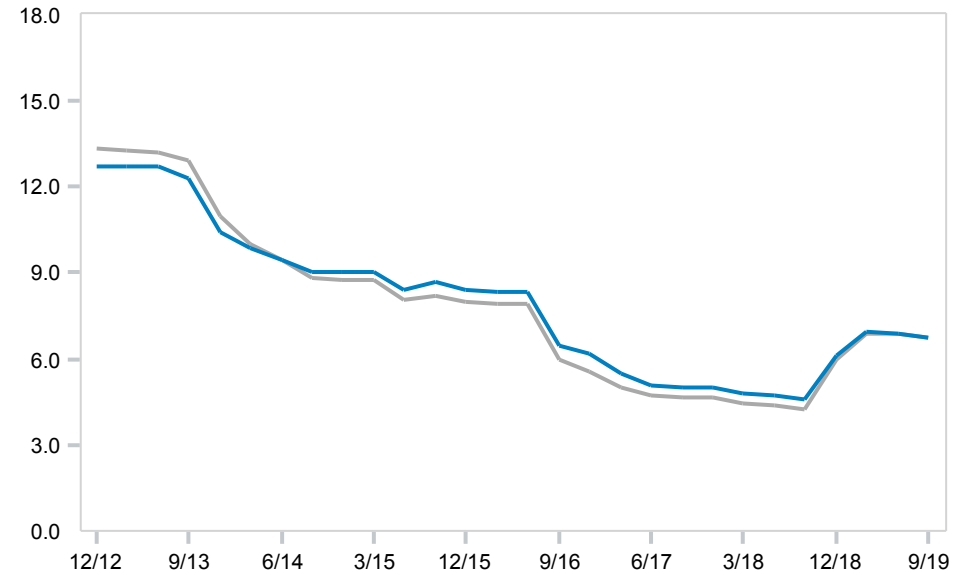
Benchmark: Total Fund Policy Index



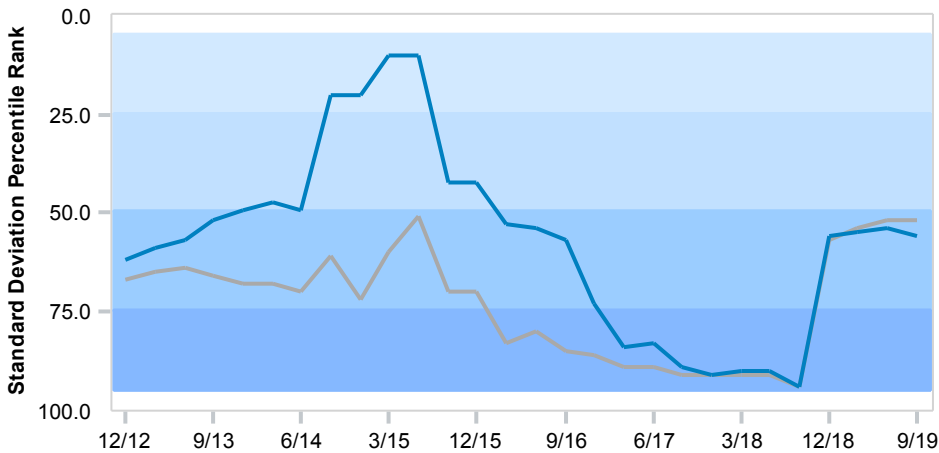
Standard Deviation 12 Quarters Rolling Periods As of September 30, 2019



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

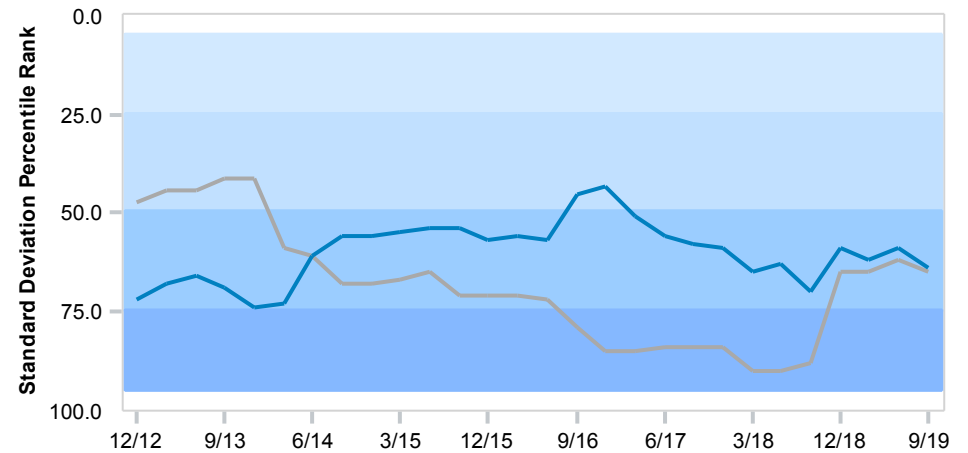


Rolling Percentile Ranking 12 Quarters Rolling Periods As of September 30, 2019



	Total Period	5-25 Count	25-50 Count	50-75 Count	75-95 Count
— Total Fund Composite	28	4 (14%)	5 (18%)	12 (43%)	7 (25%)
— Total Fund Policy Index	28	0 (0%)	0 (0%)	17 (61%)	11 (39%)

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



	Total Period	5-25 Count	25-50 Count	50-75 Count	75-95 Count
— Total Fund Composite	28	0 (0%)	2 (7%)	26 (93%)	0 (0%)
— Total Fund Policy Index	28	0 (0%)	5 (18%)	14 (50%)	9 (32%)

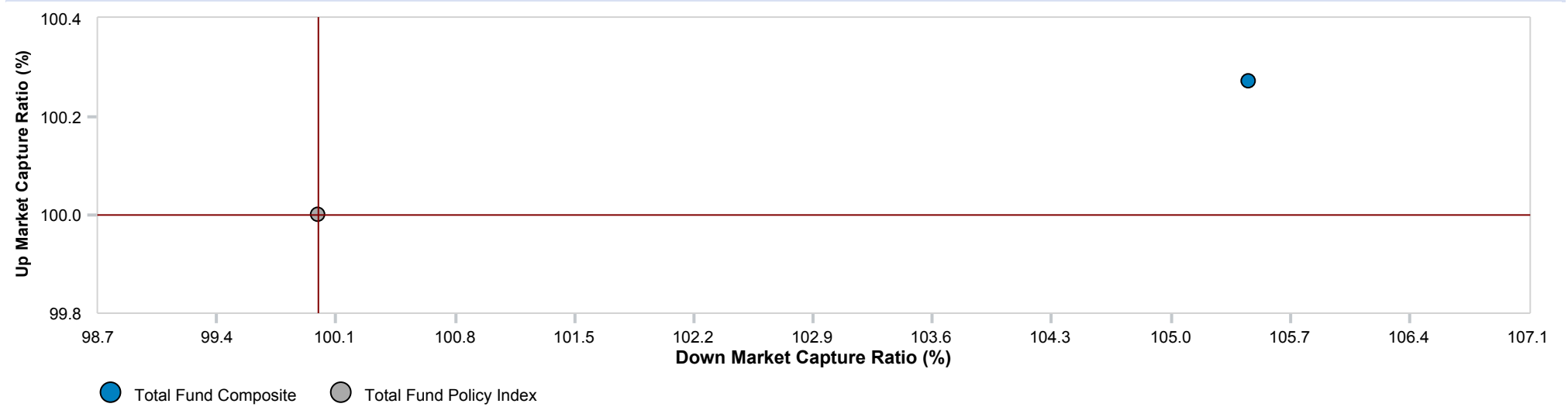
Peer: All Public Plans-Total Fund



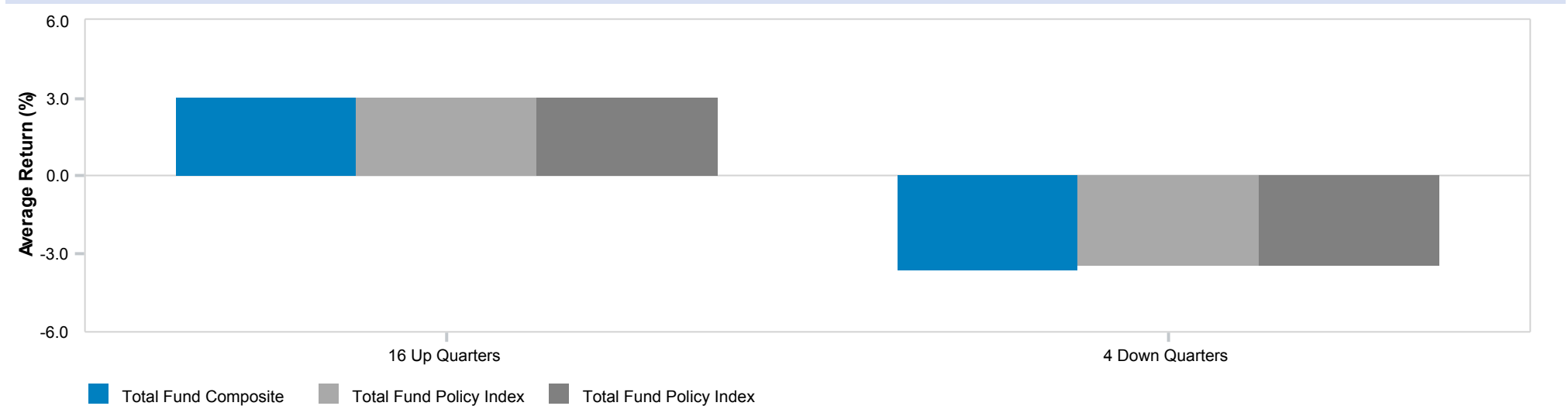
Up/Down Markets

	Full Period Return		Quarters Benchmark Up(16)				Quarters Benchmark Down(4)			
	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	6.75	6.89	7	0.43	9	-0.32	0	0.00	4	-0.19
Total Fund Policy Index	6.89	6.89	16	0.00	0	0.00	4	0.00	0	0.00

Up/Down Markets



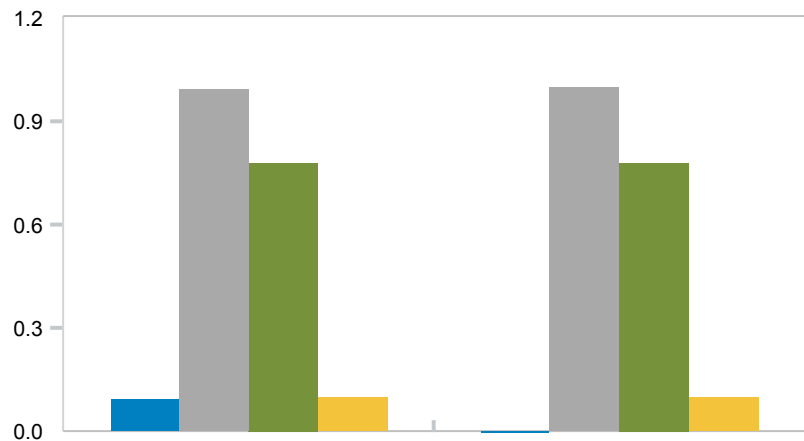
Up Down Market Bar Chart



Calculation based on quarterly periodicity.

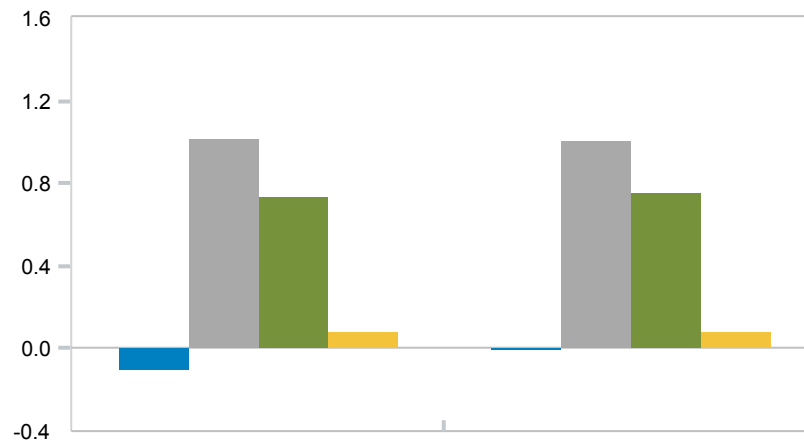


Risk / Reward Historical Statistics 3 Years Ending September 30, 2019



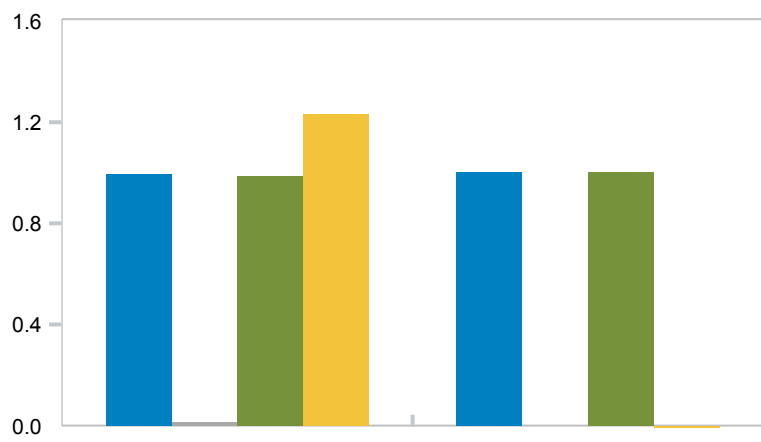
	Total Equity Composite	Total Equity Policy Index
Alpha	0.09	0.00
Beta	0.99	1.00
Sharpe Ratio	0.78	0.78
Treynor Ratio	0.10	0.10

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



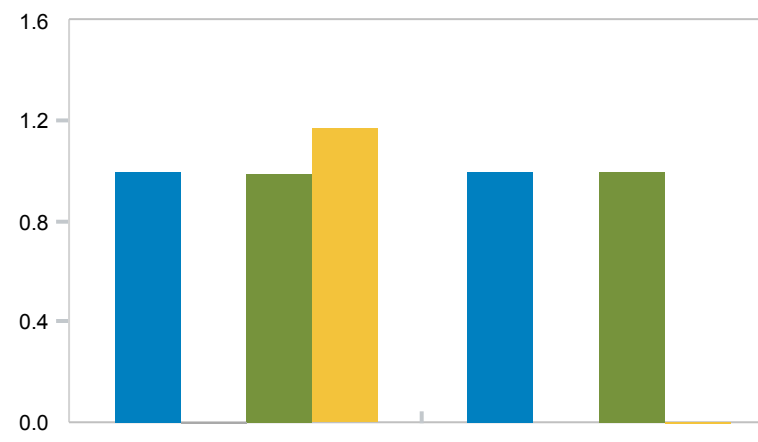
	Total Equity Composite	Total Equity Policy Index
Alpha	-0.10	0.00
Beta	1.01	1.00
Sharpe Ratio	0.74	0.75
Treynor Ratio	0.08	0.08

Benchmark Relative Historical Statistics 3 Years Ending September 30, 2019



	Total Equity Composite	Total Equity Policy Index
Actual Correlation	1.00	1.00
Information Ratio	0.02	N/A
R-Squared	0.99	1.00
Tracking Error	1.23	0.00

Benchmark Relative Historical Statistics 5 Years Ending September 30, 2019

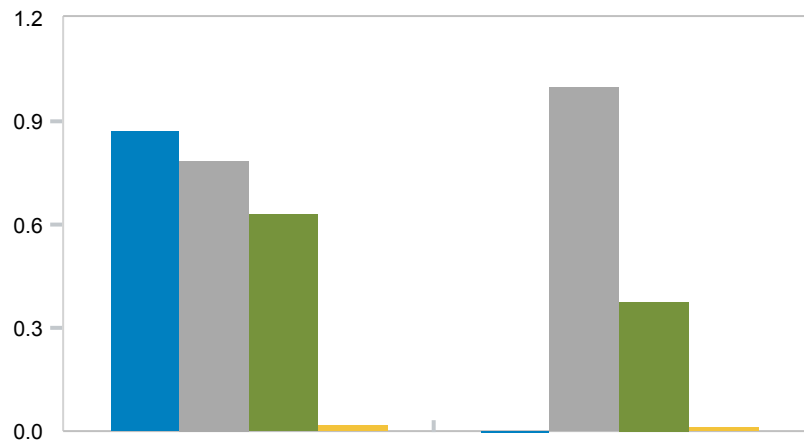


	Total Equity Composite	Total Equity Policy Index
Actual Correlation	0.99	1.00
Information Ratio	0.00	N/A
R-Squared	0.99	1.00
Tracking Error	1.17	0.00

Benchmark: Total Equity Policy Index

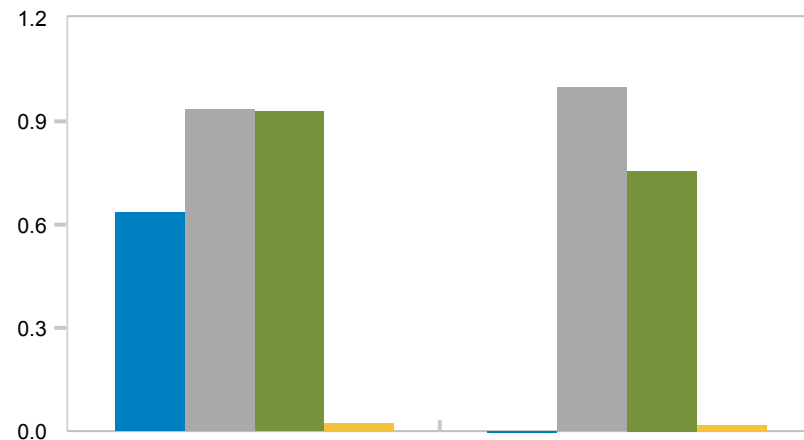


Risk / Reward Historical Statistics 3 Years Ending September 30, 2019



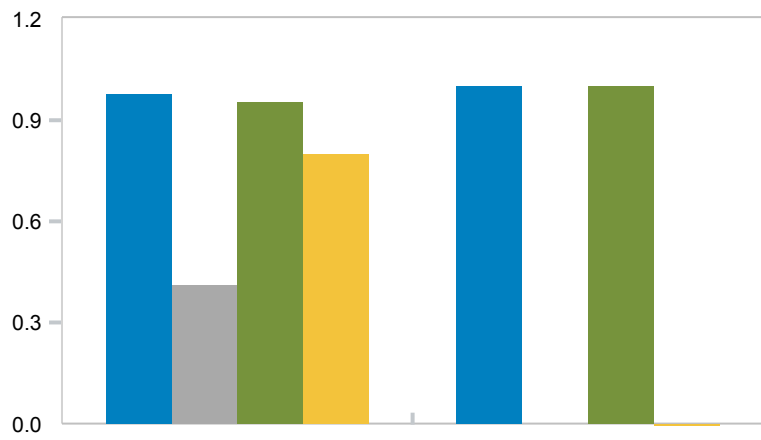
	Total Fixed Income Composite	Total Fixed Income Policy Index
Alpha	0.87	0.00
Beta	0.78	1.00
Sharpe Ratio	0.63	0.37
Treynor Ratio	0.02	0.01

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



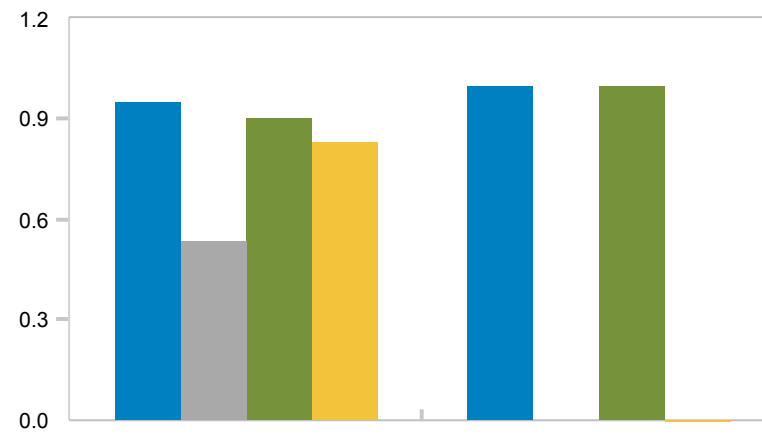
	Total Fixed Income Composite	Total Fixed Income Policy Index
Alpha	0.63	0.00
Beta	0.94	1.00
Sharpe Ratio	0.93	0.76
Treynor Ratio	0.03	0.02

Benchmark Relative Historical Statistics 3 Years Ending September 30, 2019



	Total Fixed Income Composite	Total Fixed Income Policy Index
Actual Correlation	0.98	1.00
Information Ratio	0.41	N/A
R-Squared	0.95	1.00
Tracking Error	0.80	0.00

Benchmark Relative Historical Statistics 5 Years Ending September 30, 2019



	Total Fixed Income Composite	Total Fixed Income Policy Index
Actual Correlation	0.95	1.00
Information Ratio	0.53	N/A
R-Squared	0.91	1.00
Tracking Error	0.83	0.00

Benchmark: Total Fixed Income Policy Index



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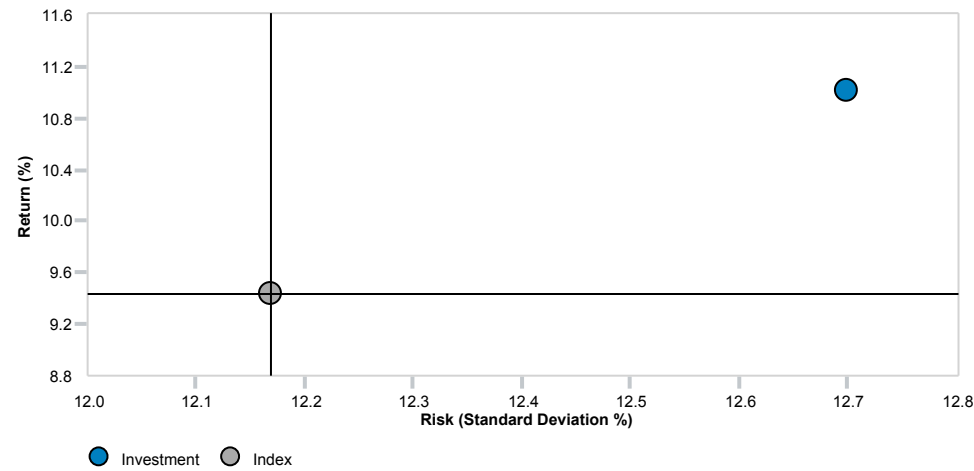
Historical Statistics 3 Years

	Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters
Investment	11.01	12.70	0.77	106.37	10	98.62	2
Index	9.43	12.17	0.68	100.00	10	100.00	2

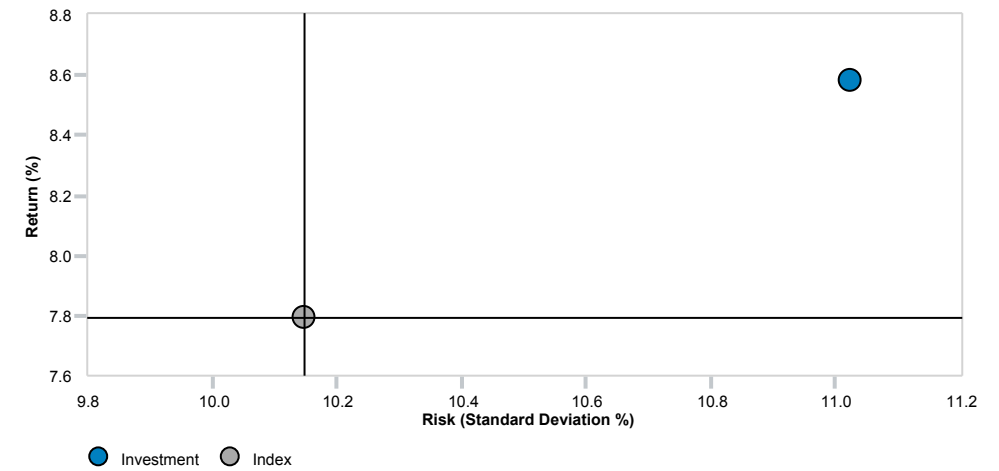
Historical Statistics 5 Years

	Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters
Investment	8.58	11.02	0.72	112.30	16	115.49	4
Index	7.79	10.15	0.70	100.00	16	100.00	4

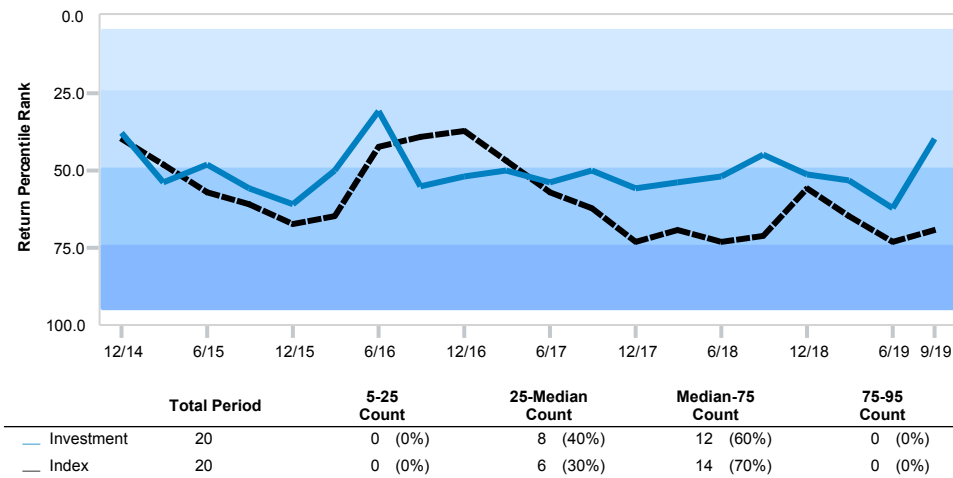
Risk and Return 3 Years



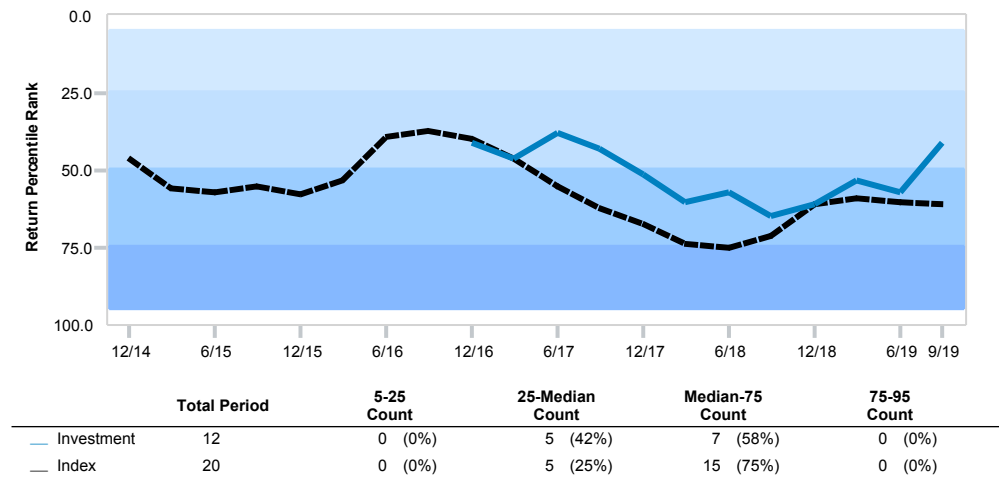
Risk and Return 5 Years



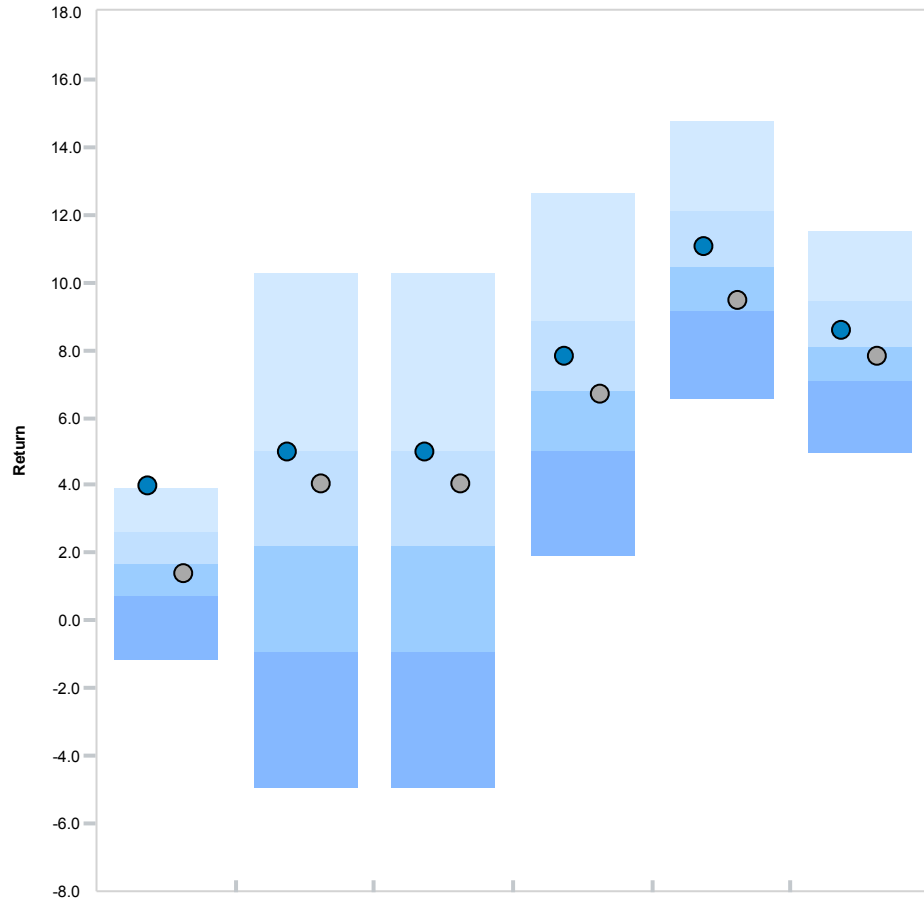
3 Year Rolling Percentile Rank IM U.S. Large Cap Value Equity (SA+CF)



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

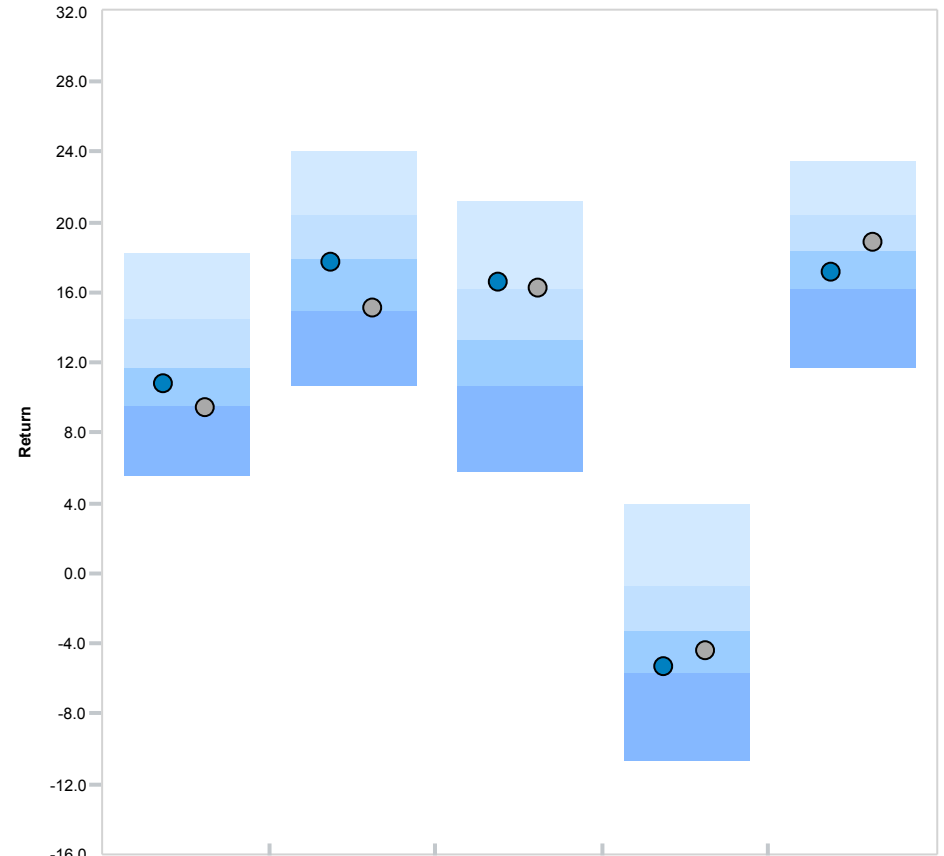


Plan Sponsor Peer Group Analysis vs. IM U.S. Large Cap Value Equity (SA+CF)



	QTR	FYTD	1 YR	2 YR	3 YR	5 YR
Investment	3.97 (5)	4.95 (26)	4.95 (26)	7.81 (38)	11.01 (40)	8.58 (41)
Index	1.36 (59)	4.00 (37)	4.00 (37)	6.69 (52)	9.43 (69)	7.79 (61)
Median	1.66	2.21	2.21	6.79	10.45	8.11

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



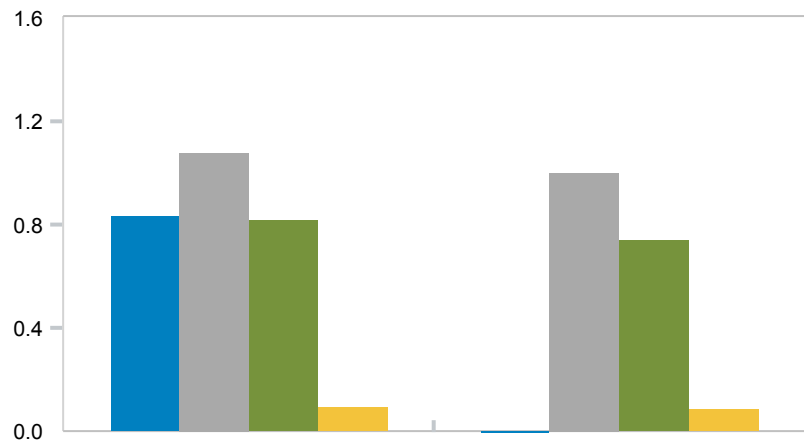
	4 Quarters Ending Sep-2018	4 Quarters Ending Sep-2017	4 Quarters Ending Sep-2016	4 Quarters Ending Sep-2015	4 Quarters Ending Sep-2014
Investment	10.74 (62)	17.71 (54)	16.57 (23)	-5.35 (71)	17.16 (66)
Index	9.45 (77)	15.12 (75)	16.19 (26)	-4.42 (65)	18.89 (42)
Median	11.72	17.89	13.33	-3.29	18.40

Comparative Performance

	1 Qtr Ending Jun-2019	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
Investment	4.08 (45)	11.83 (48)	-13.27 (48)	6.64 (31)	1.94 (44)	-4.02 (94)
Index	3.84 (53)	11.93 (45)	-11.72 (30)	5.70 (50)	1.18 (66)	-2.83 (75)
Median	3.95	11.74	-13.51	5.70	1.74	-1.97

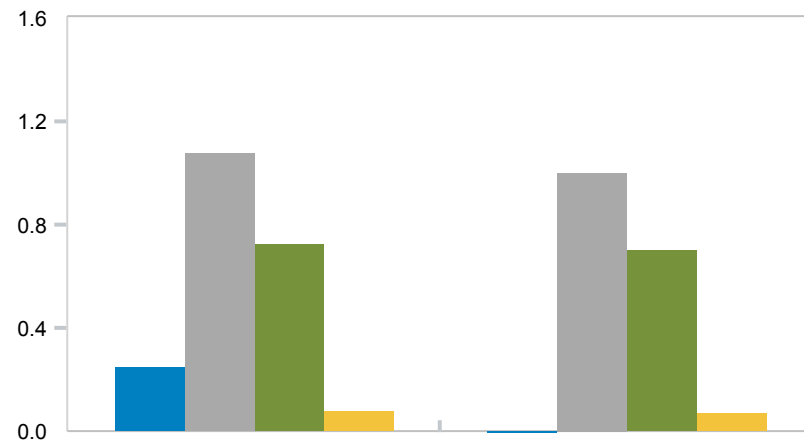


Risk / Reward Historical Statistics 3 Years Ending September 30, 2019



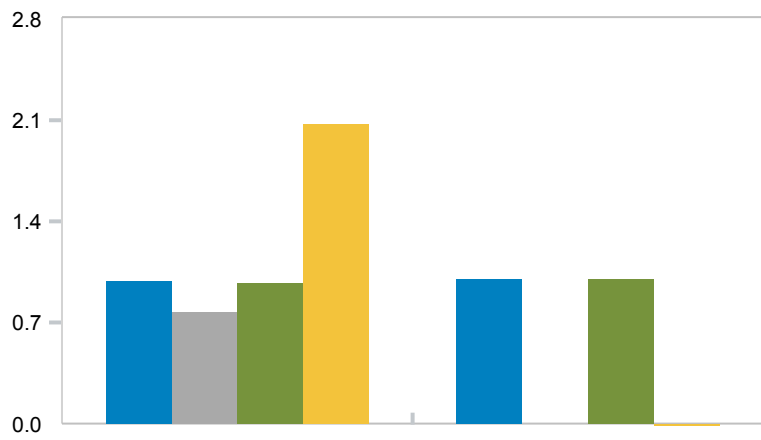
	Ceredex Equity	Russell 1000 Value Index
Alpha	0.83	0.00
Beta	1.08	1.00
Sharpe Ratio	0.81	0.74
Treynor Ratio	0.09	0.08

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



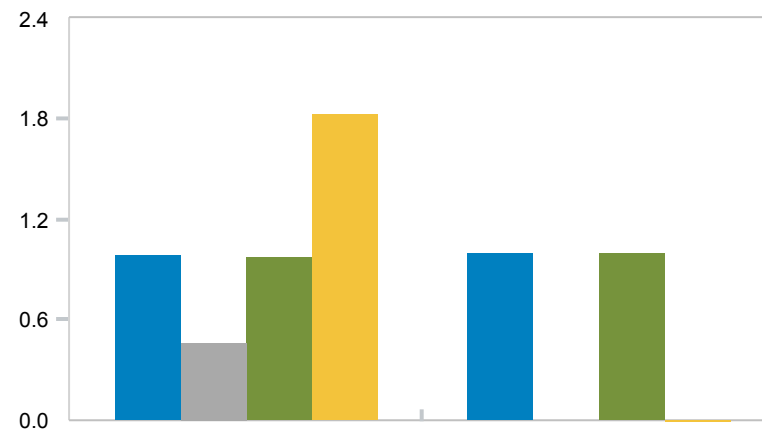
	Ceredex Equity	Russell 1000 Value Index
Alpha	0.25	0.00
Beta	1.07	1.00
Sharpe Ratio	0.72	0.70
Treynor Ratio	0.07	0.07

Benchmark Relative Historical Statistics 3 Years Ending September 30, 2019



	Ceredex Equity	Russell 1000 Value Index
Actual Correlation	0.99	1.00
Information Ratio	0.77	N/A
R-Squared	0.98	1.00
Tracking Error	2.07	0.00

Benchmark Relative Historical Statistics 5 Years Ending September 30, 2019



	Ceredex Equity	Russell 1000 Value Index
Actual Correlation	0.99	1.00
Information Ratio	0.46	N/A
R-Squared	0.98	1.00
Tracking Error	1.83	0.00

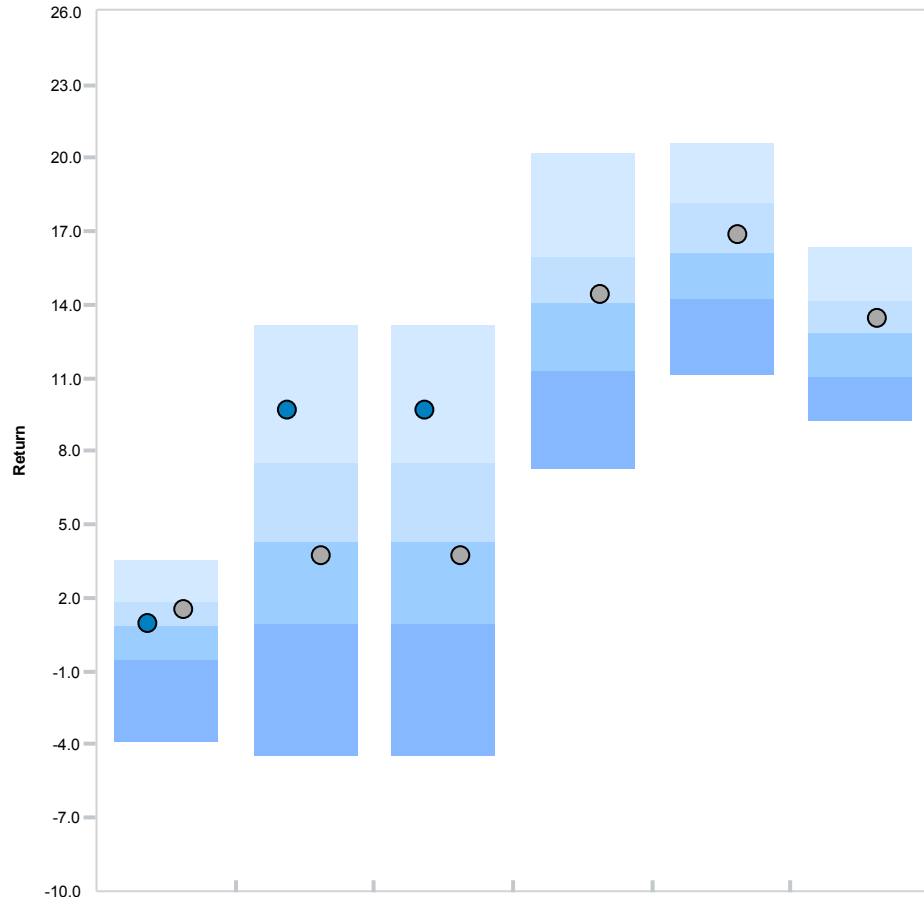
Benchmark: Russell 1000 Value Index



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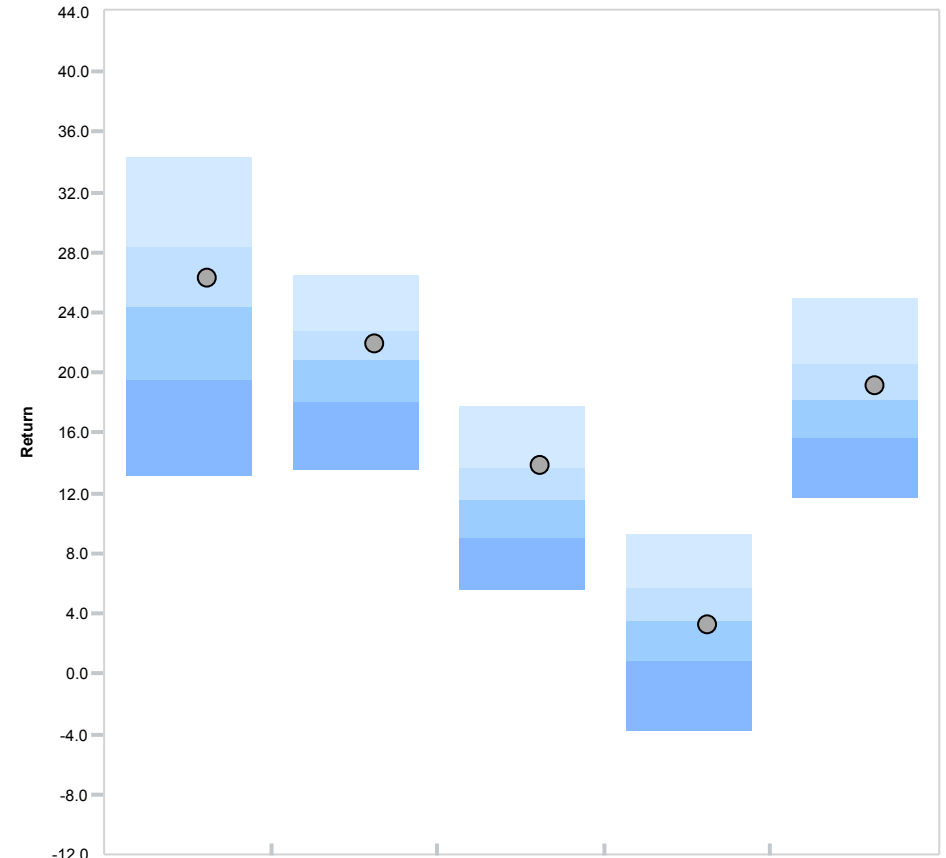


Plan Sponsor Peer Group Analysis vs. IM U.S. Large Cap Growth Equity (SA+CF)



	QTR	FYTD	1 YR	2 YR	3 YR	5 YR
● Investment	0.94 (47)	9.69 (13)	9.69 (13)	N/A	N/A	N/A
● Index	1.49 (31)	3.71 (56)	3.71 (56)	14.45 (44)	16.89 (39)	13.39 (38)
Median	0.83	4.30	4.30	14.06	16.16	12.82

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



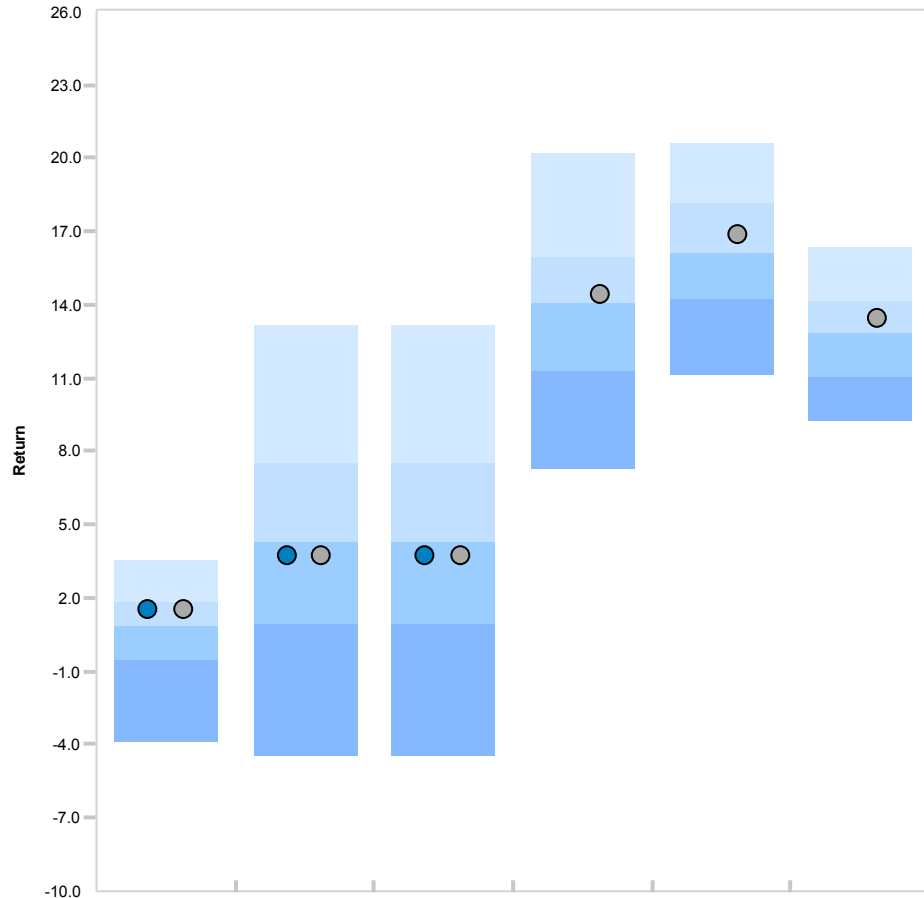
	4 Quarters Ending Sep-2018	4 Quarters Ending Sep-2017	4 Quarters Ending Sep-2016	4 Quarters Ending Sep-2015	4 Quarters Ending Sep-2014
● Investment	N/A	N/A	N/A	N/A	N/A
● Index	26.30 (36)	21.94 (37)	13.76 (23)	3.17 (54)	19.15 (40)
Median	24.41	20.81	11.62	3.55	18.18

Comparative Performance

	1 Qtr Ending Jun-2019	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
Investment	6.10 (25)	17.10 (32)	-12.53 (21)	10.55 (7)	9.15 (3)	3.08 (36)
Index	4.64 (59)	16.10 (47)	-15.89 (61)	9.17 (23)	5.76 (42)	1.42 (60)
Median	5.10	15.99	-15.29	8.14	5.36	2.07

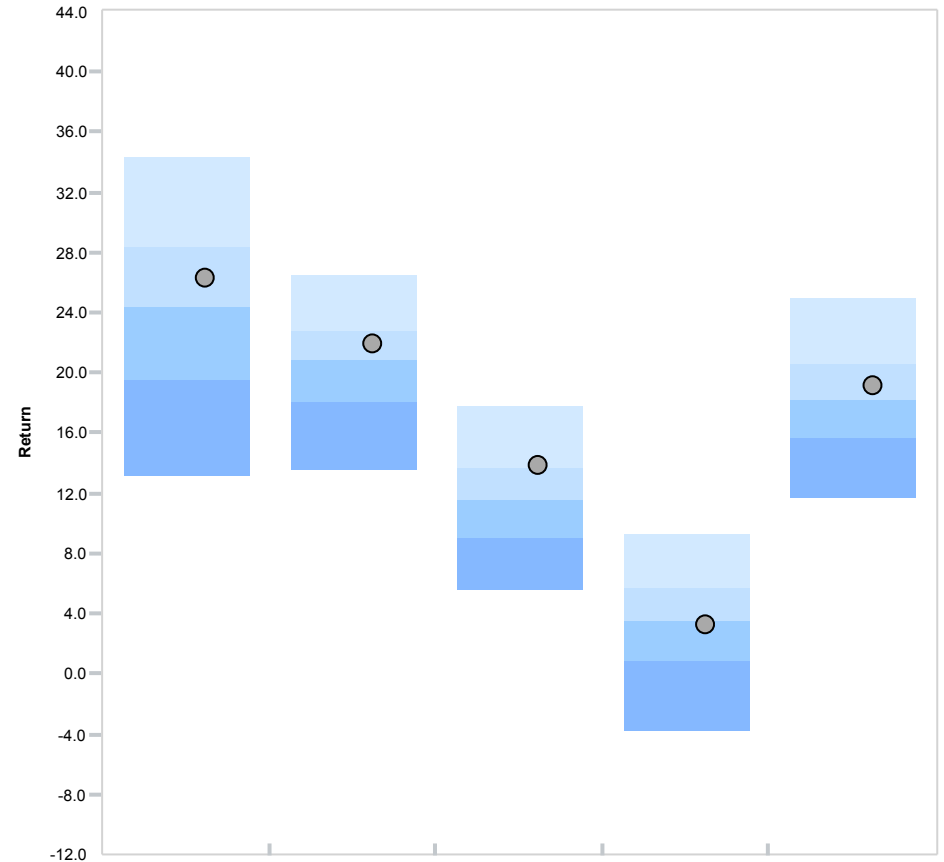


Plan Sponsor Peer Group Analysis vs. IM U.S. Large Cap Growth Equity (SA+CF)



	QTR	FYTD	1 YR	2 YR	3 YR	5 YR
Investment	1.49 (31)	3.71 (56)	3.71 (56)	N/A	N/A	N/A
Index	1.49 (31)	3.71 (56)	3.71 (56)	14.45 (44)	16.89 (39)	13.39 (38)
Median	0.83	4.30	4.30	14.06	16.16	12.82

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 (36)	21.94 (37)	13.76 (23)	3.17 (54)	19.15 (40)
Median	24.41	20.81	11.62	3.55	18.18

Comparative Performance

	1 Qtr Ending Jun-2019	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
Investment	4.65 (59)	16.08 (48)	-15.87 (61)	9.16 (23)	5.76 (42)	1.42 (60)
Index	4.64 (59)	16.10 (47)	-15.89 (61)	9.17 (23)	5.76 (42)	1.42 (60)
Median	5.10	15.99	-15.29	8.14	5.36	2.07



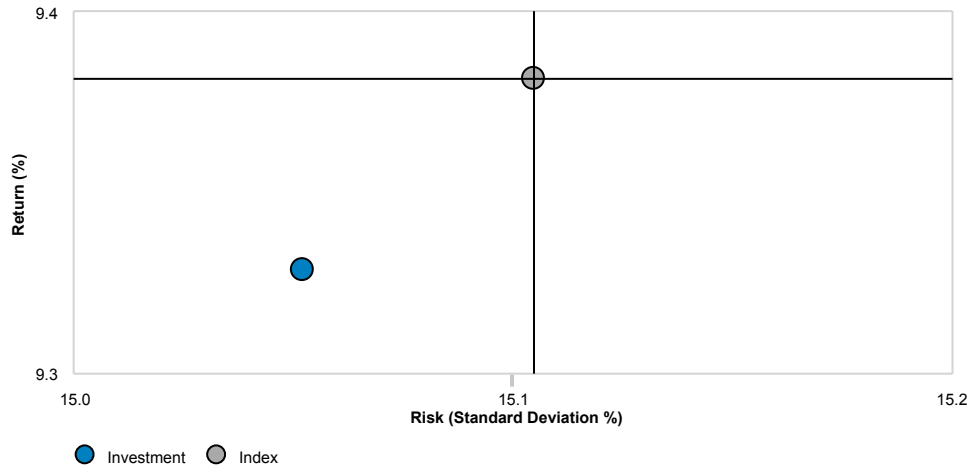
Historical Statistics 3 Years

	Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters
Investment	9.33	15.05	0.57	99.55	9	99.63	3
Index	9.38	15.10	0.57	100.00	9	100.00	3

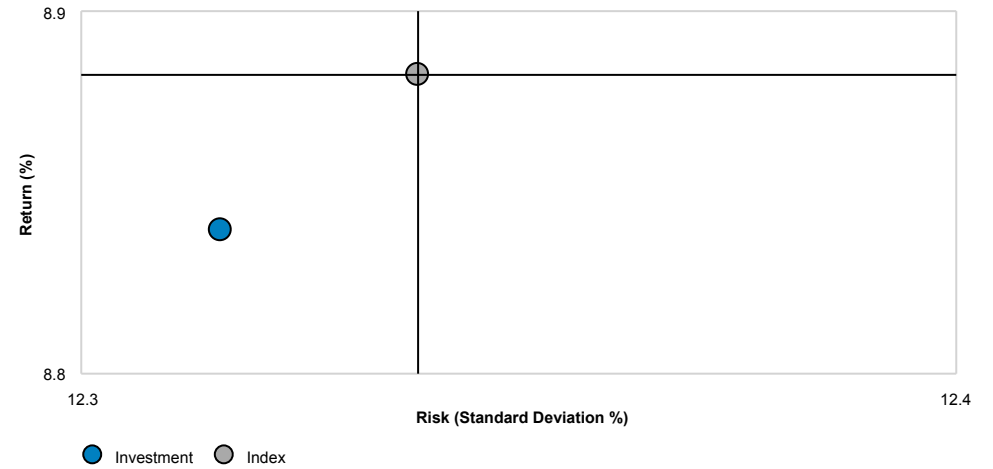
Historical Statistics 5 Years

	Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters
Investment	8.84	12.32	0.68	99.58	15	99.66	5
Index	8.88	12.34	0.68	100.00	15	100.00	5

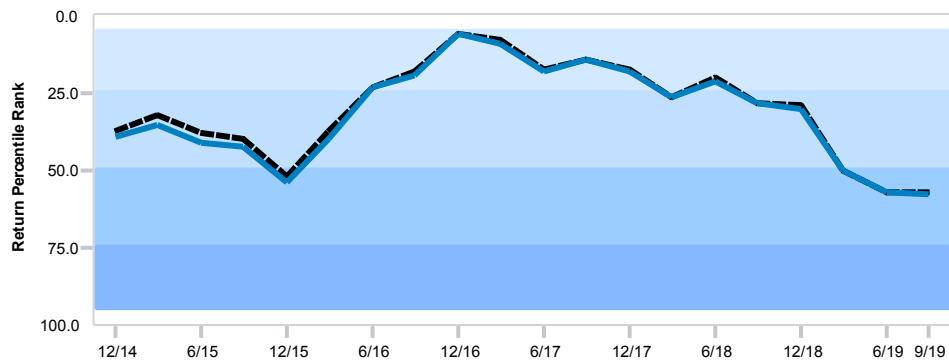
Risk and Return 3 Years



Risk and Return 5 Years

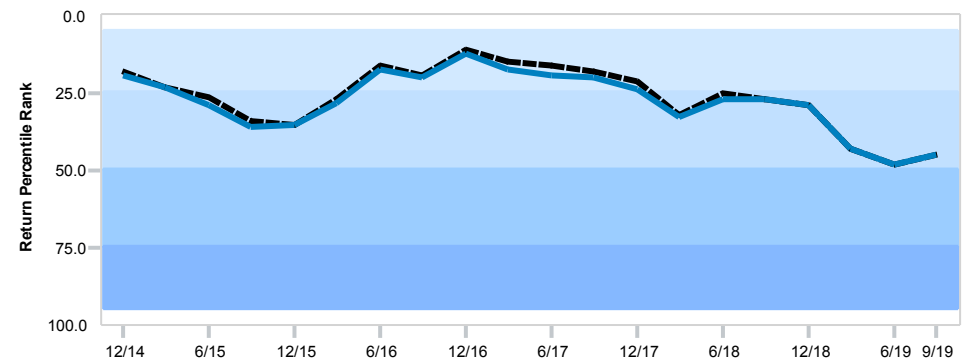


3 Year Rolling Percentile Rank IM U.S. Mid Cap Equity (MF)



	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%)

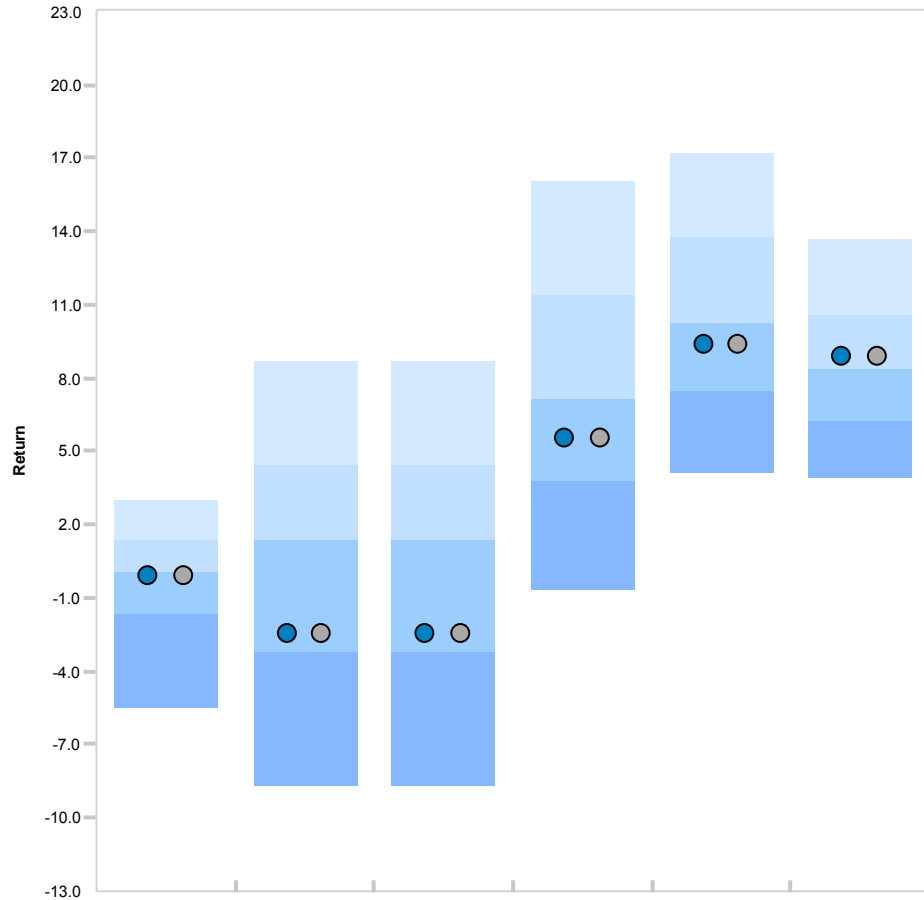
5 Year Rolling Percentile Rank IM U.S. Mid Cap Equity (MF)



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

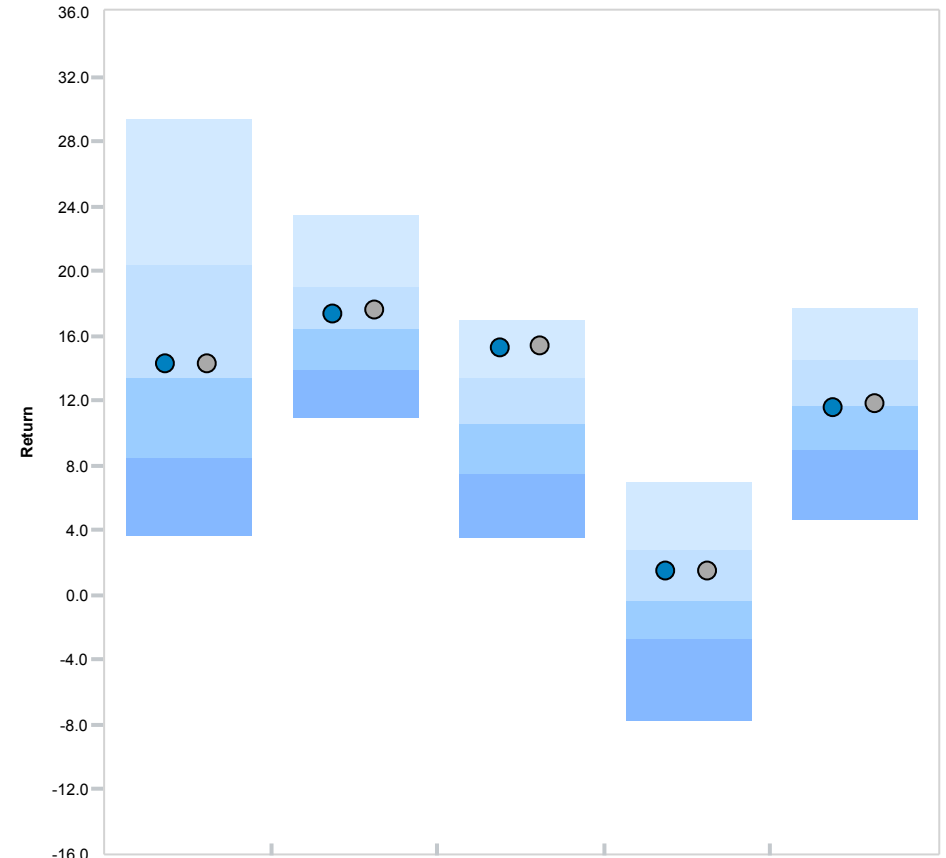


Plan Sponsor Peer Group Analysis vs. IM U.S. Mid Cap Equity (MF)



	QTR	FYTD	1 YR	2 YR	3 YR	5 YR
● Investment	-0.10 (52)	-2.50 (73)	-2.50 (73)	5.54 (64)	9.33 (58)	8.84 (45)
● Index	-0.09 (52)	-2.49 (73)	-2.49 (73)	5.53 (64)	9.38 (57)	8.88 (45)
Median	0.03	1.37	1.37	7.13	10.31	8.36

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



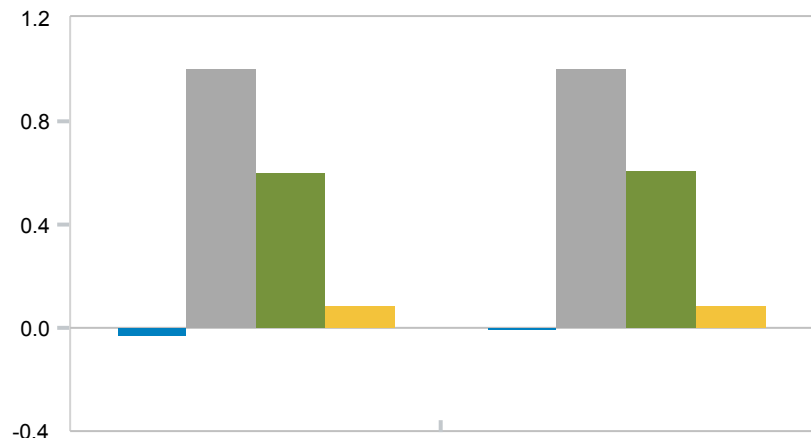
	4 Quarters Ending Sep-2018	4 Quarters Ending Sep-2017	4 Quarters Ending Sep-2016	4 Quarters Ending Sep-2015	4 Quarters Ending Sep-2014
● Investment	14.25 (46)	17.31 (41)	15.25 (15)	1.41 (37)	11.52 (52)
● Index	14.21 (47)	17.52 (39)	15.33 (14)	1.40 (37)	11.82 (50)
Median	13.42	16.49	10.59	-0.36	11.70

Comparative Performance

	1 Qtr Ending Jun-2019	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
Investment	3.04 (75)	14.45 (65)	-17.24 (60)	3.85 (62)	4.27 (25)	-0.70 (53)
Index	3.05 (75)	14.49 (64)	-17.28 (61)	3.86 (62)	4.29 (25)	-0.77 (55)
Median	4.56	15.48	-16.65	4.64	2.57	-0.56

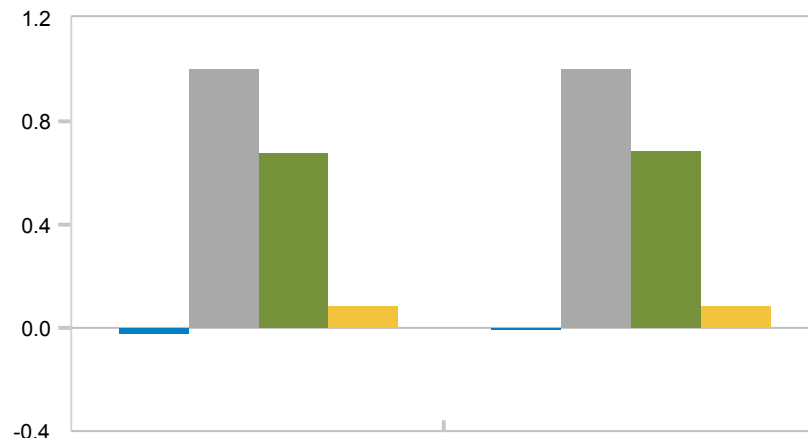


Risk / Reward Historical Statistics 3 Years Ending September 30, 2019



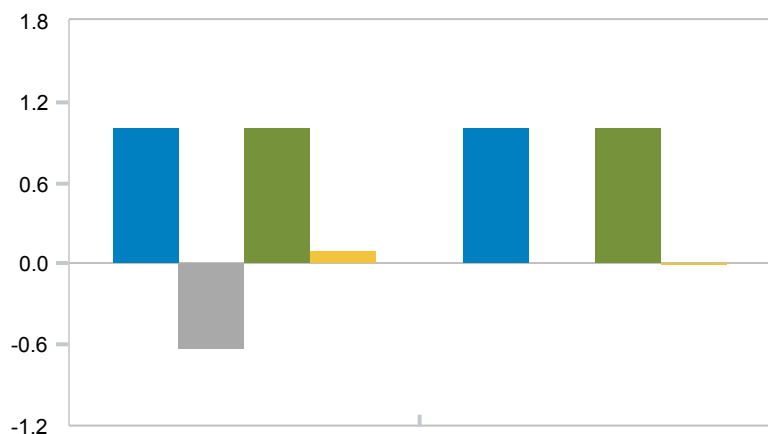
	Mutual of America Equity	S&P MidCap 400 Index
Alpha	-0.03	0.00
Beta	1.00	1.00
Sharpe Ratio	0.60	0.60
Treynor Ratio	0.09	0.09

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



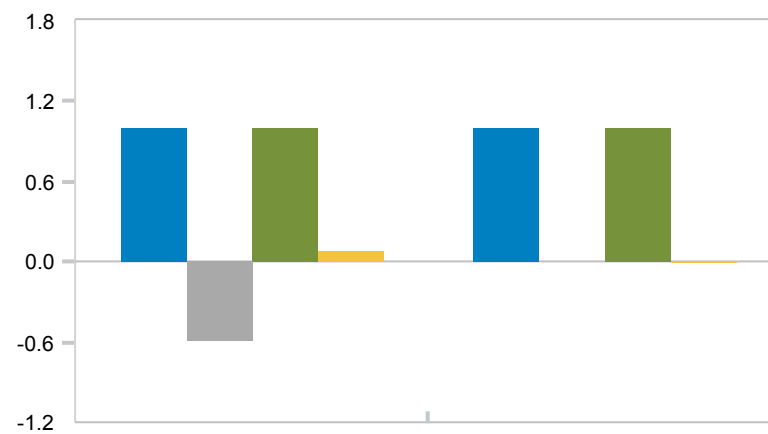
	Mutual of America Equity	S&P MidCap 400 Index
Alpha	-0.03	0.00
Beta	1.00	1.00
Sharpe Ratio	0.68	0.68
Treynor Ratio	0.08	0.08

Benchmark Relative Historical Statistics 3 Years Ending September 30, 2019



	Mutual of America Equity	S&P MidCap 400 Index
Actual Correlation	1.00	1.00
Information Ratio	-0.63	N/A
R-Squared	1.00	1.00
Tracking Error	0.09	0.00

Benchmark Relative Historical Statistics 5 Years Ending September 30, 2019

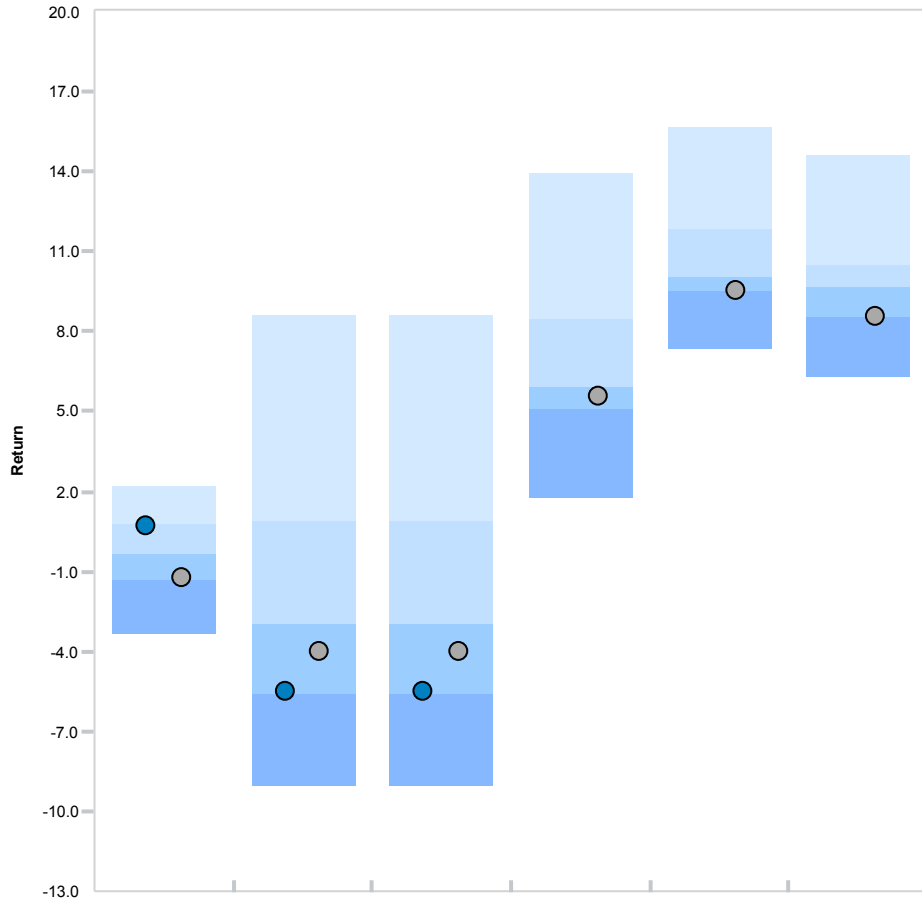


	Mutual of America Equity	S&P MidCap 400 Index
Actual Correlation	1.00	1.00
Information Ratio	-0.59	N/A
R-Squared	1.00	1.00
Tracking Error	0.07	0.00

Benchmark: S&P MidCap 400 Index

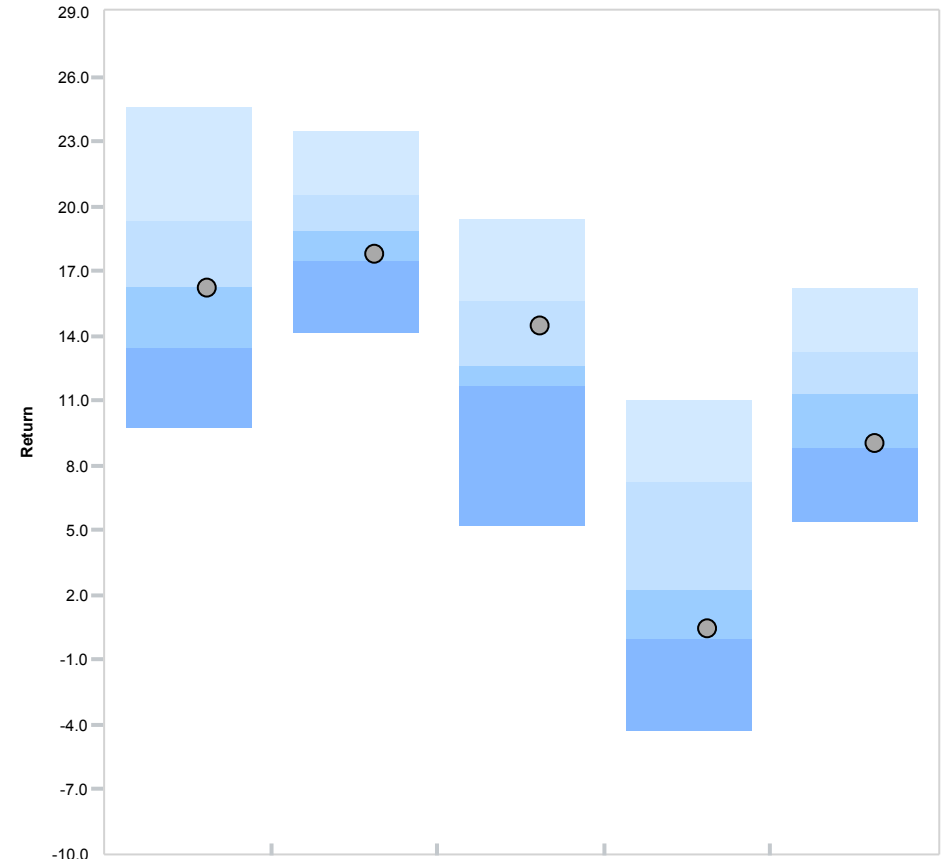


Plan Sponsor Peer Group Analysis vs. IM U.S. SMID Cap Core Equity (SA+CF)



	QTR	FYTD	1 YR	2 YR	3 YR	5 YR
● Investment	0.68 (27)	-5.51 (75)	-5.51 (75)	N/A	N/A	N/A
● Index	-1.28 (75)	-4.04 (60)	-4.04 (60)	5.59 (70)	9.51 (76)	8.57 (75)
Median	-0.33	-2.99	-2.99	5.95	10.04	9.64

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



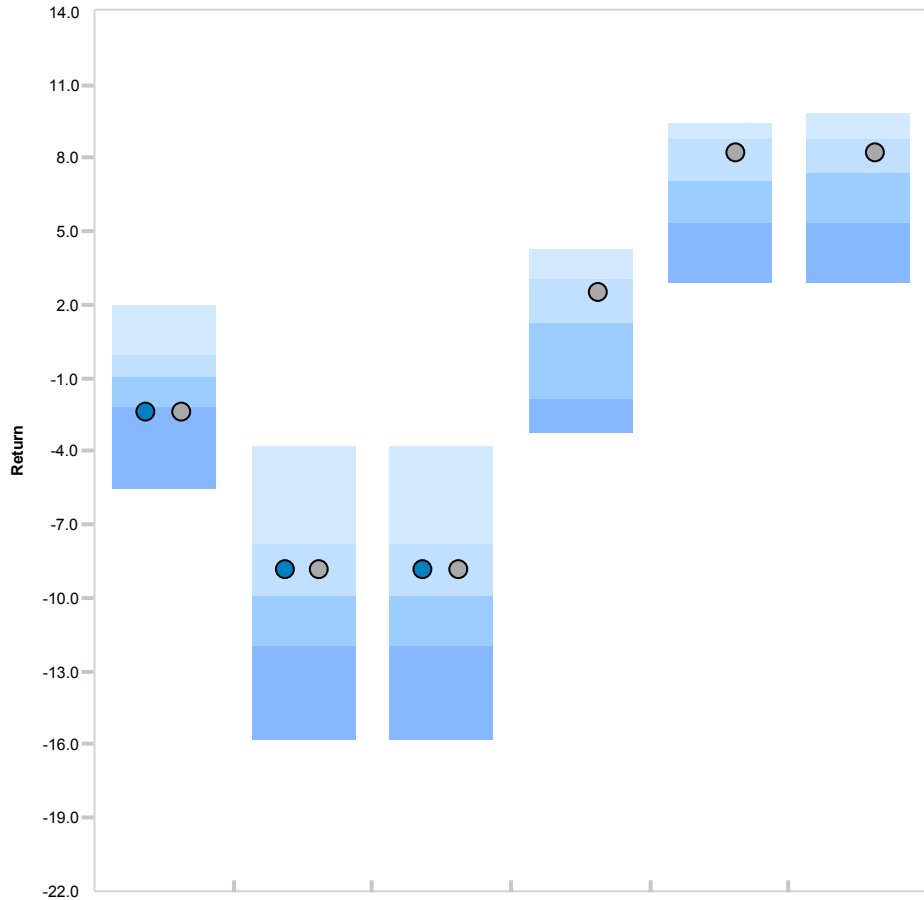
	4 Quarters Ending Sep-2018	4 Quarters Ending Sep-2017	4 Quarters Ending Sep-2016	4 Quarters Ending Sep-2015	4 Quarters Ending Sep-2014
● Investment	N/A	N/A	N/A	N/A	N/A
● Index	16.19 (57)	17.79 (71)	14.44 (35)	0.38 (74)	8.97 (72)
Median	16.28	18.86	12.61	2.28	11.29

Comparative Performance

	1 Qtr Ending Jun-2019	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
Investment	1.06 (98)	12.63 (90)	-17.55 (40)	N/A	N/A	N/A
Index	2.96 (77)	15.82 (32)	-18.49 (64)	4.70 (55)	5.71 (33)	-0.24 (65)
Median	4.34	15.13	-18.23	4.80	4.67	0.17

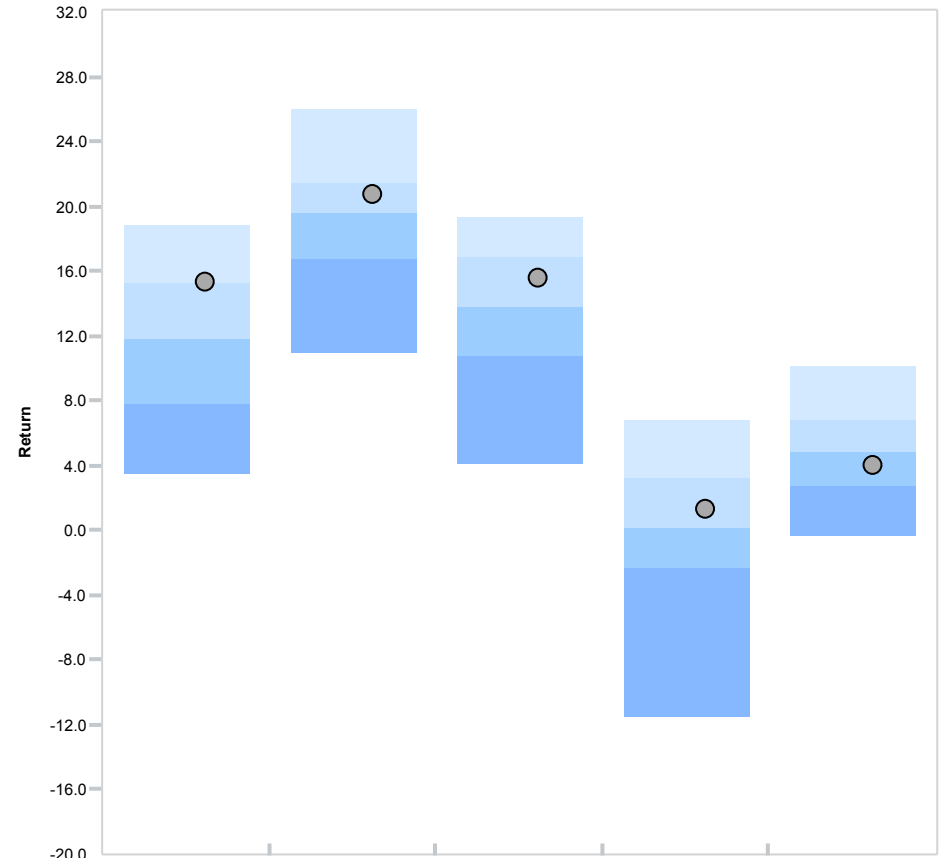


Plan Sponsor Peer Group Analysis vs. IM U.S. Small Cap Core Equity (MF)



	QTR	FYTD	1 YR	2 YR	3 YR	5 YR
● Investment	-2.39 (80)	-8.83 (35)	-8.83 (35)	N/A	N/A	N/A
● Index	-2.40 (80)	-8.89 (35)	-8.89 (35)	2.47 (33)	8.23 (33)	8.19 (39)
Median	-0.92	-9.88	-9.88	1.25	7.03	7.40

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 (25)	20.74 (33)	15.47 (35)	1.25 (41)	3.93 (65)
Median	11.79	19.59	13.84	0.21	4.81

Comparative Performance

	1 Qtr Ending Jun-2019	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
Investment	2.12 (27)	14.59 (13)	-20.18 (55)	N/A	N/A	N/A
Index	2.10 (27)	14.58 (13)	-20.20 (56)	3.58 (29)	7.75 (44)	-0.08 (30)
Median	1.61	11.56	-20.13	2.73	7.57	-0.55



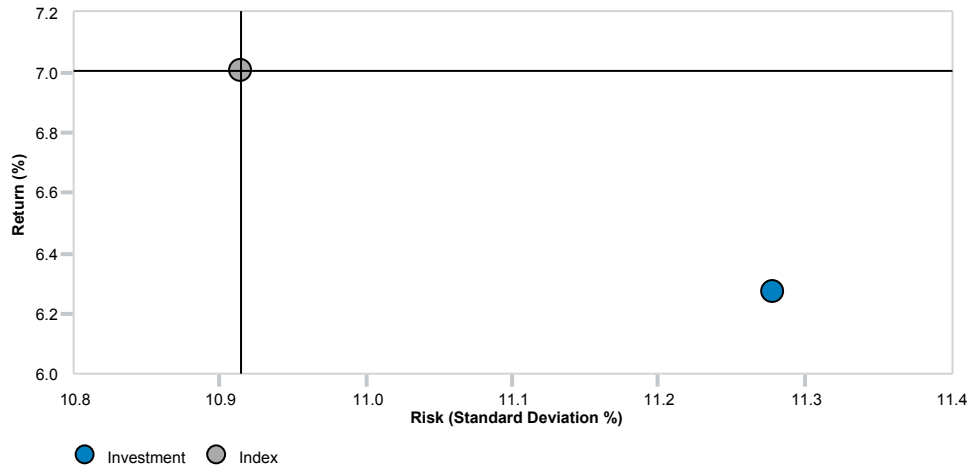
Historical Statistics 3 Years

	Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters
Investment	6.27	11.28	0.46	96.14	7	99.13	5
Index	7.01	10.91	0.54	100.00	7	100.00	5

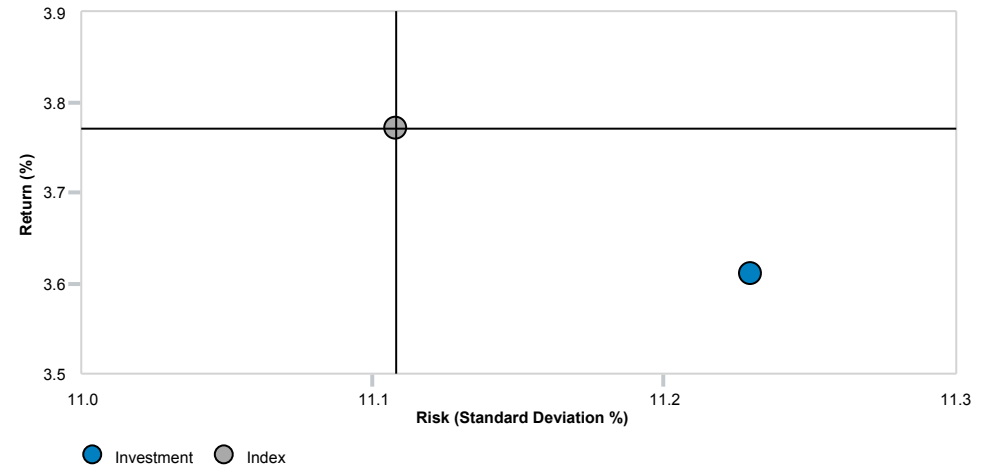
Historical Statistics 5 Years

	Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters
Investment	3.61	11.23	0.29	99.10	11	100.59	9
Index	3.77	11.11	0.31	100.00	11	100.00	9

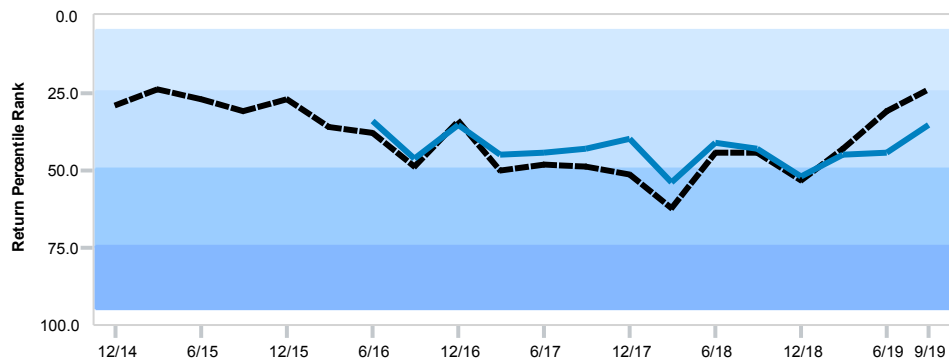
Risk and Return 3 Years



Risk and Return 5 Years

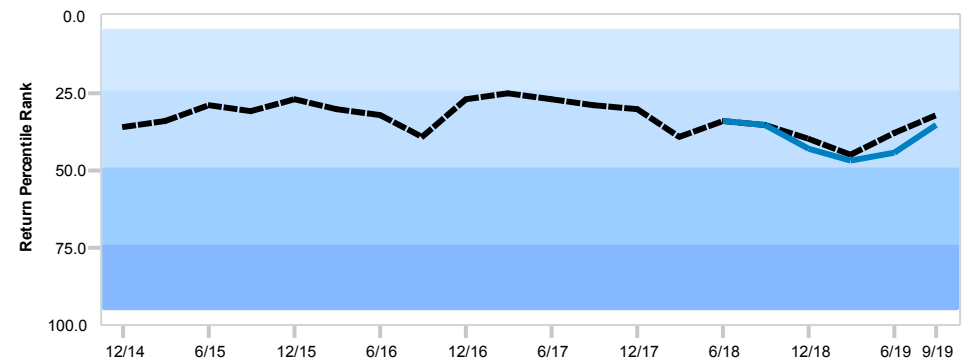


3 Year Rolling Percentile Rank IM International Equity (MF)



	Total Period	5-25 Count	25-Median Count	Median-75 Count	75-95 Count
Investment	14	0 (0%)	12 (86%)	2 (14%)	0 (0%)
Index	20	2 (10%)	15 (75%)	3 (15%)	0 (0%)

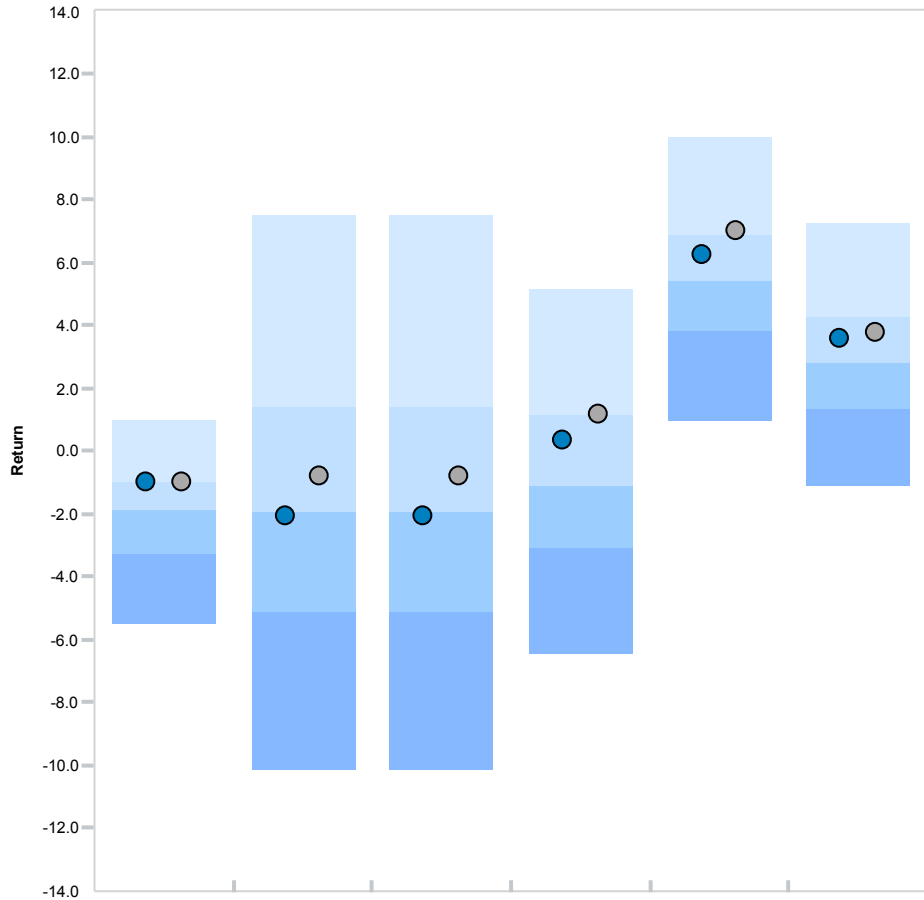
5 Year Rolling Percentile Rank IM International Equity (MF)



	Total Period	5-25 Count	25-Median Count	Median-75 Count	75-95 Count
Investment	6	0 (0%)	6 (100%)	0 (0%)	0 (0%)
Index	20	1 (5%)	19 (95%)	0 (0%)	0 (0%)

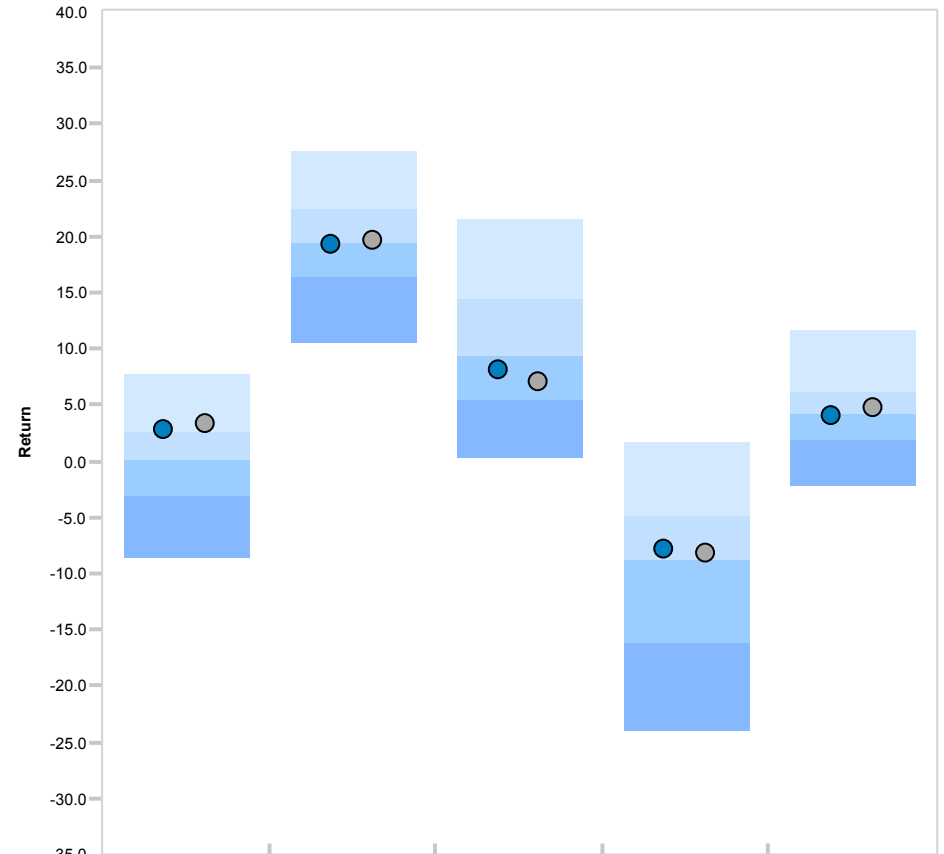


Plan Sponsor Peer Group Analysis vs. IM International Equity (MF)



	QTR	FYTD	1 YR	2 YR	3 YR	5 YR
● Investment	-0.99 (25)	-2.08 (52)	-2.08 (52)	0.32 (35)	6.27 (35)	3.61 (35)
● Index	-1.00 (25)	-0.82 (41)	-0.82 (41)	1.20 (25)	7.01 (24)	3.77 (32)
Median	-1.90	-1.94	-1.94	-1.10	5.44	2.81

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



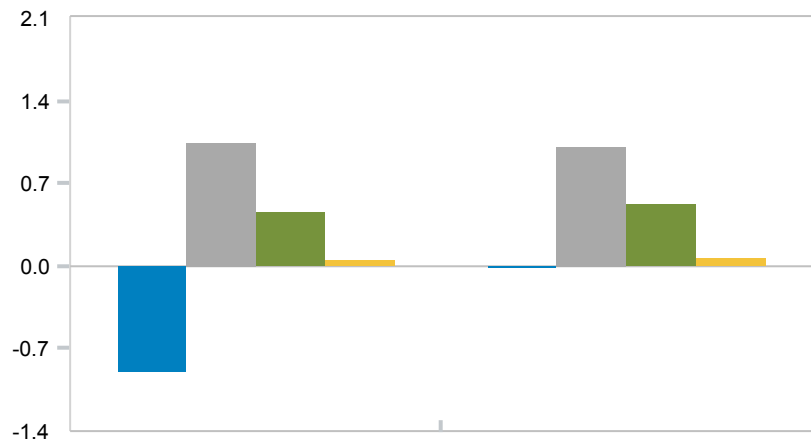
	4 Quarters Ending Sep-2018	4 Quarters Ending Sep-2017	4 Quarters Ending Sep-2016	4 Quarters Ending Sep-2015	4 Quarters Ending Sep-2014
● Investment	2.78 (24)	19.25 (52)	8.03 (59)	-7.90 (45)	4.01 (54)
● Index	3.25 (21)	19.65 (48)	7.06 (65)	-8.27 (47)	4.70 (44)
Median	0.08	19.36	9.32	-8.75	4.26

Comparative Performance

	1 Qtr Ending Jun-2019	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
Investment	3.27 (38)	10.16 (58)	-13.06 (61)	1.09 (24)	-1.59 (26)	-1.09 (74)
Index	3.97 (25)	10.13 (59)	-12.50 (53)	1.42 (17)	-0.97 (18)	-1.41 (81)
Median	2.58	10.54	-12.22	-0.27	-3.33	-0.07

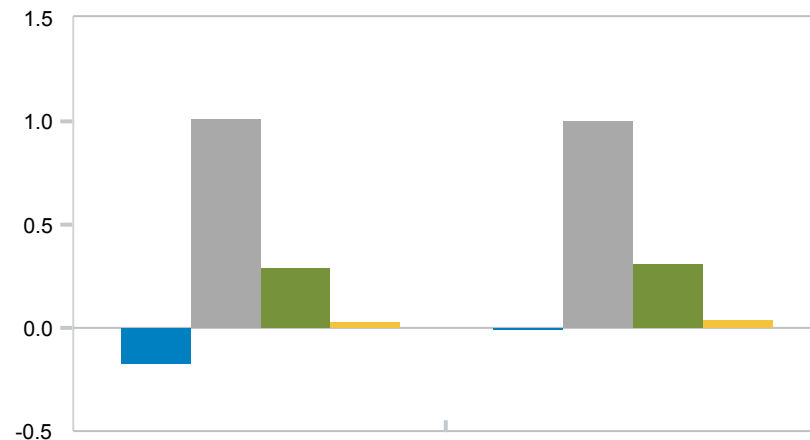


Risk / Reward Historical Statistics 3 Years Ending September 30, 2019



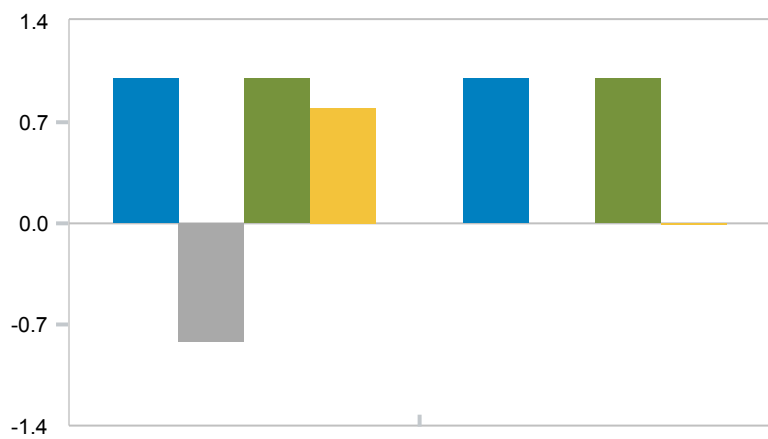
	Vanguard Intl Eq (VTMGX)	MSCI EAFE Index
Alpha	-0.90	0.00
Beta	1.03	1.00
Sharpe Ratio	0.45	0.52
Treynor Ratio	0.05	0.06

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



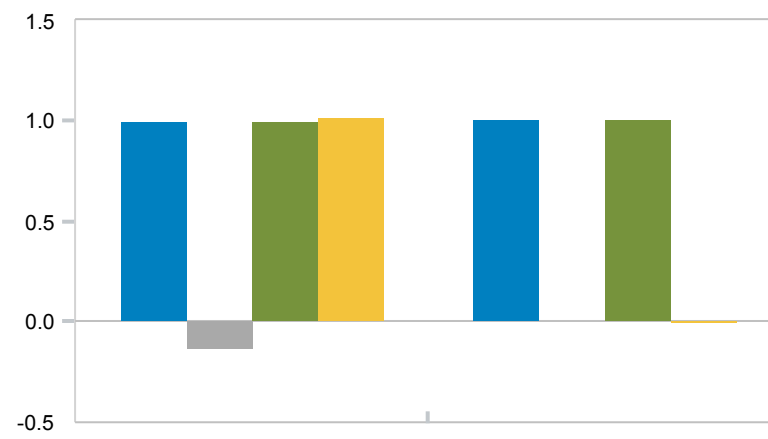
	Vanguard Intl Eq (VTMGX)	MSCI EAFE Index
Alpha	-0.17	0.00
Beta	1.01	1.00
Sharpe Ratio	0.29	0.31
Treynor Ratio	0.03	0.03

Benchmark Relative Historical Statistics 3 Years Ending September 30, 2019



	Vanguard Intl Eq (VTMGX)	MSCI EAFE Index
Actual Correlation	1.00	1.00
Information Ratio	-0.82	N/A
R-Squared	1.00	1.00
Tracking Error	0.80	0.00

Benchmark Relative Historical Statistics 5 Years Ending September 30, 2019



	Vanguard Intl Eq (VTMGX)	MSCI EAFE Index
Actual Correlation	1.00	1.00
Information Ratio	-0.14	N/A
R-Squared	0.99	1.00
Tracking Error	1.02	0.00

Benchmark: MSCI EAFE Index



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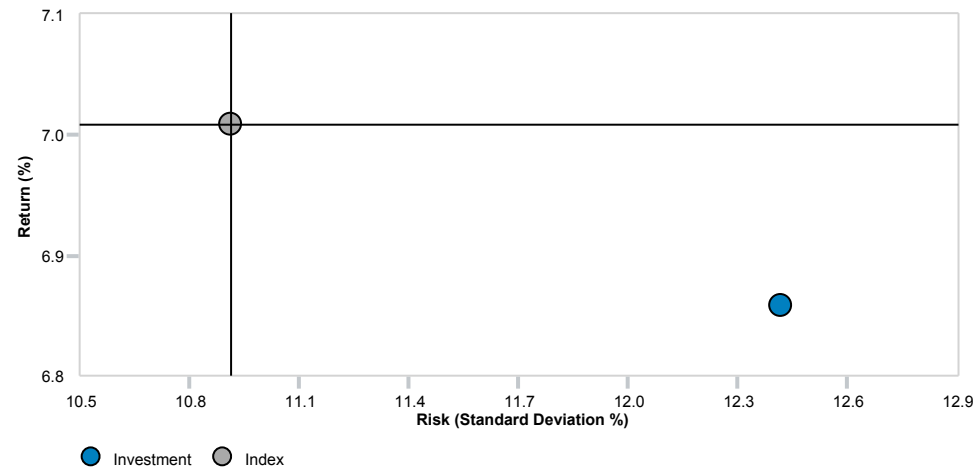
Historical Statistics 3 Years

	Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters
Investment	6.86	12.42	0.47	103.23	6	104.93	6
Index	7.01	10.91	0.54	100.00	7	100.00	5

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	3.77	11.11	0.31	100.00	11	100.00	9

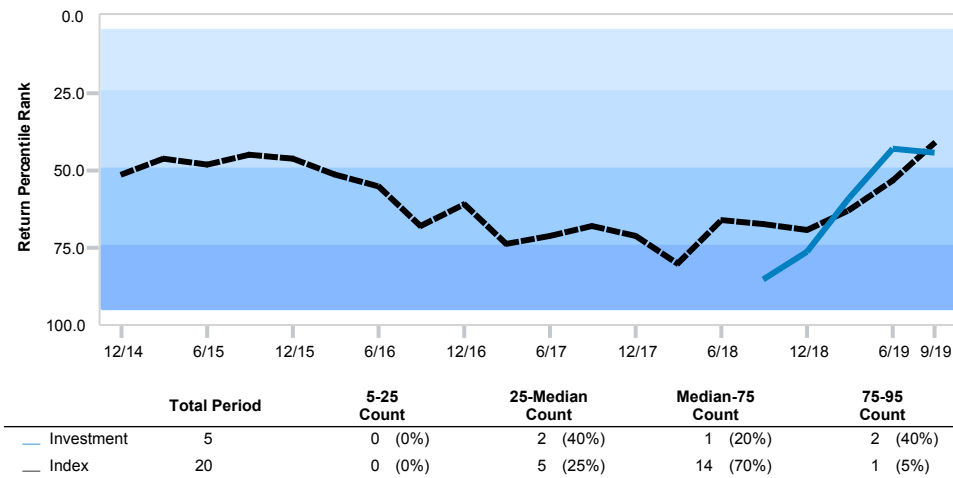
Risk and Return 3 Years



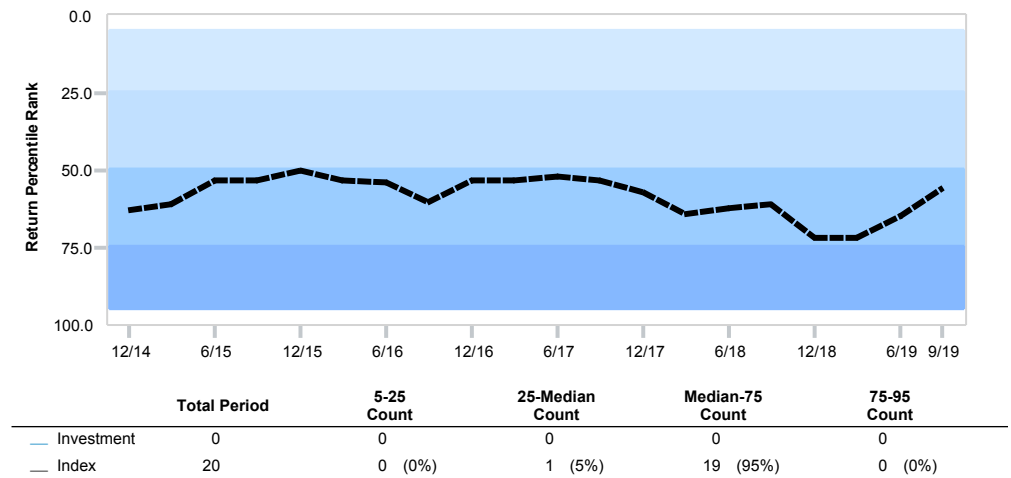
Risk and Return 5 Years



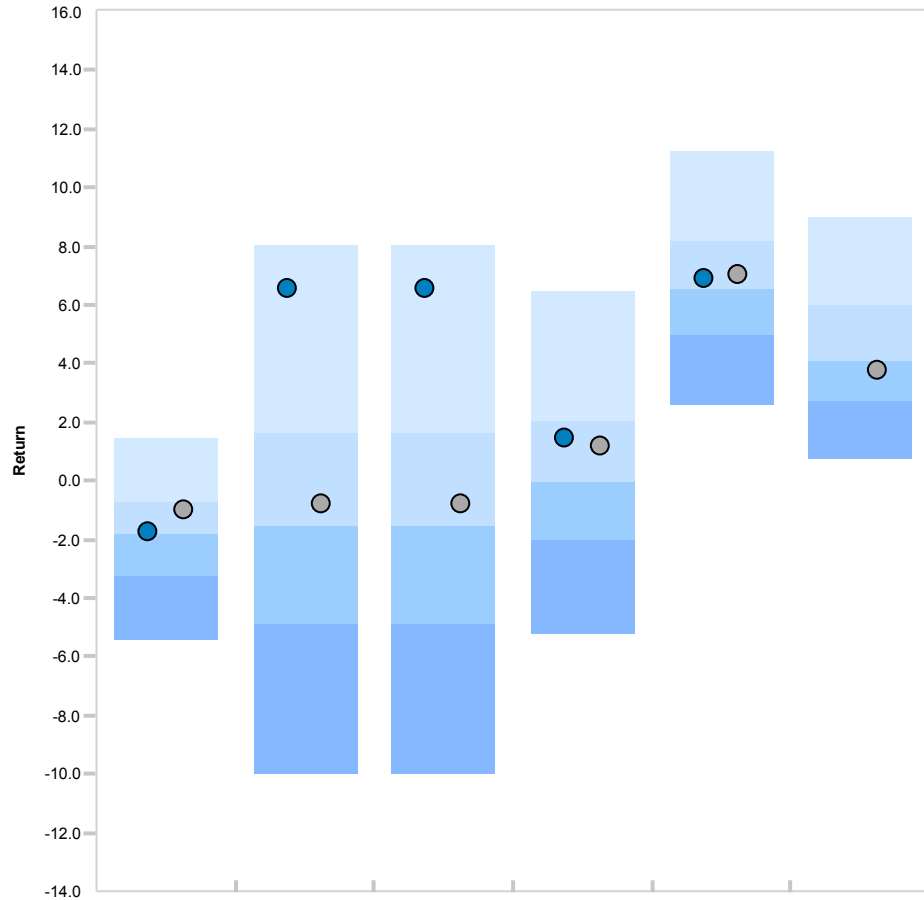
3 Year Rolling Percentile Rank IM International Equity (SA+CF)



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

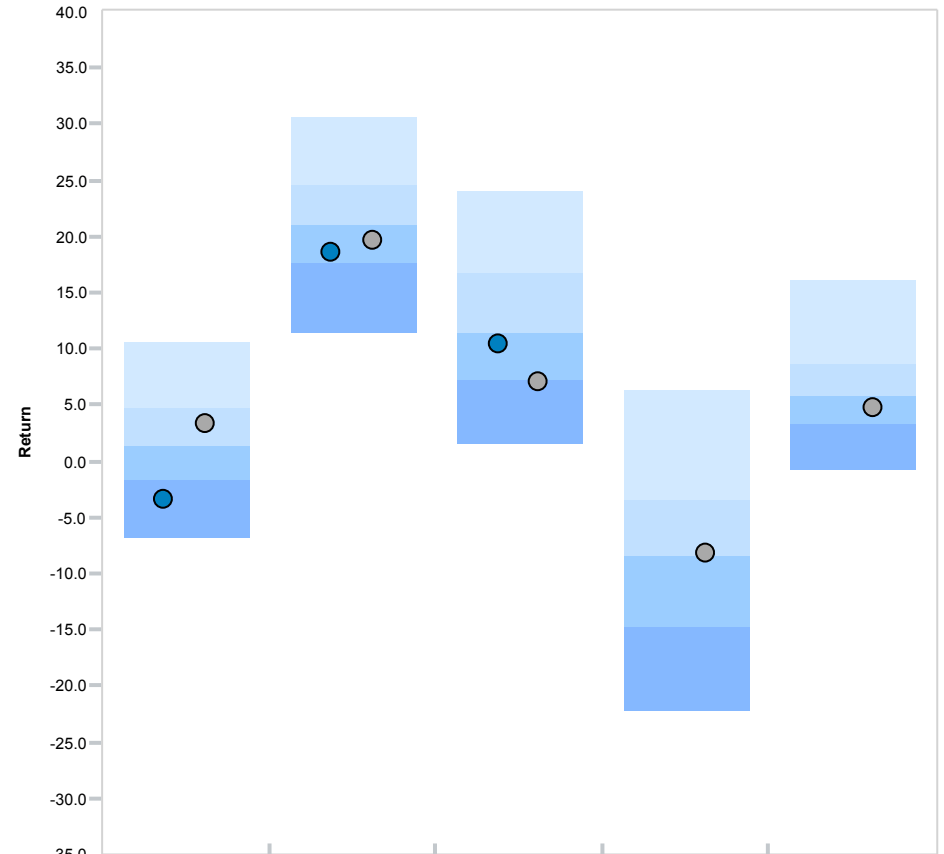


Plan Sponsor Peer Group Analysis vs. IM International Equity (SA+CF)



	QTR	FYTD	1 YR	2 YR	3 YR	5 YR
● Investment	-1.75 (48)	6.53 (9)	6.53 (9)	1.43 (32)	6.86 (44)	N/A
● Index	-1.00 (31)	-0.82 (43)	-0.82 (43)	1.20 (34)	7.01 (41)	3.77 (56)
Median	-1.84	-1.57	-1.57	-0.04	6.53	4.08

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	1.36	21.05	11.48	-8.39	5.80

Comparative Performance

	1 Qtr Ending Jun-2019	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
Investment	5.79 (10)	13.56 (15)	-9.75 (35)	-2.10 (76)	-3.67 (62)	-1.67 (82)
Index	3.97 (27)	10.13 (58)	-12.50 (55)	1.42 (25)	-0.97 (26)	-1.41 (77)
Median	2.63	10.54	-11.81	0.11	-2.69	-0.09



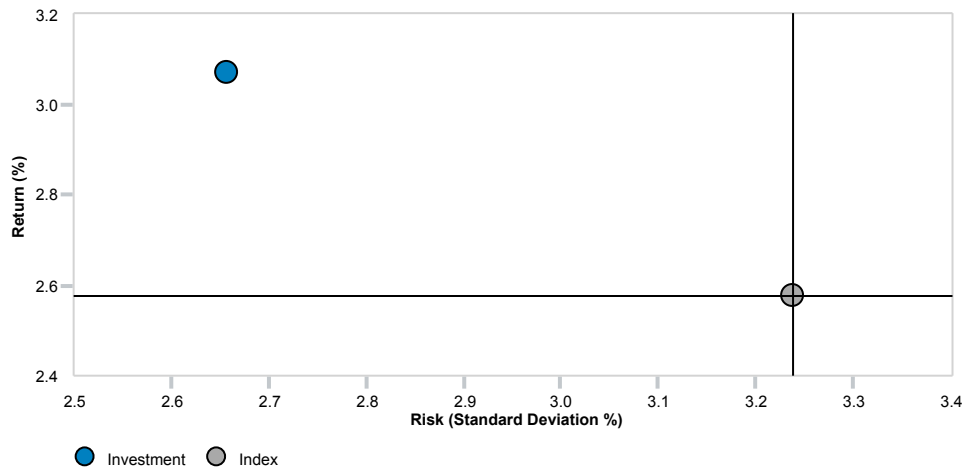
Historical Statistics 3 Years

	Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters
Investment	3.07	2.66	0.60	86.67	9	59.71	3
Index	2.58	3.24	0.34	100.00	9	100.00	3

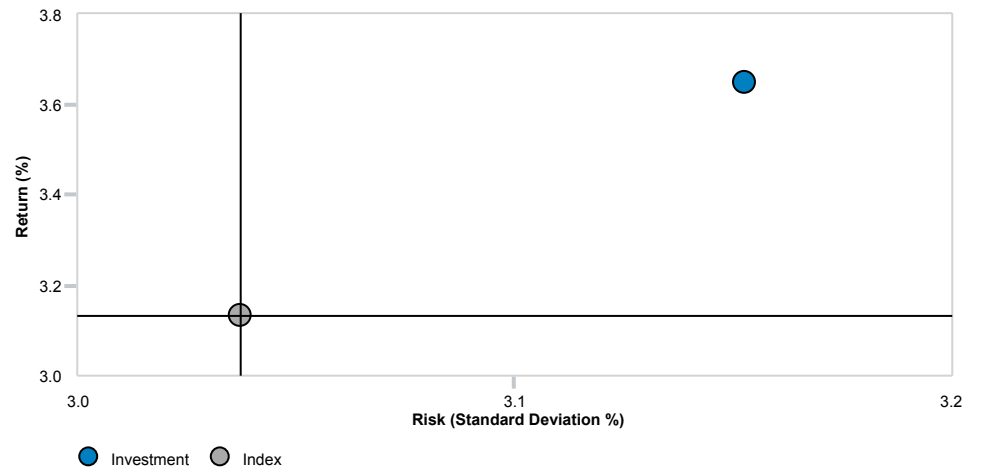
Historical Statistics 5 Years

	Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters
Investment	3.65	3.15	0.87	110.25	15	95.87	5
Index	3.13	3.04	0.74	100.00	15	100.00	5

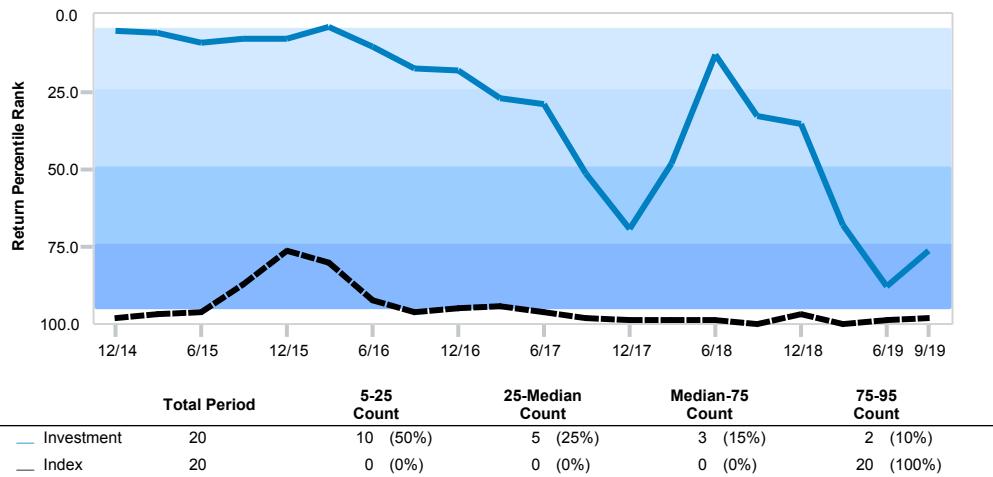
Risk and Return 3 Years



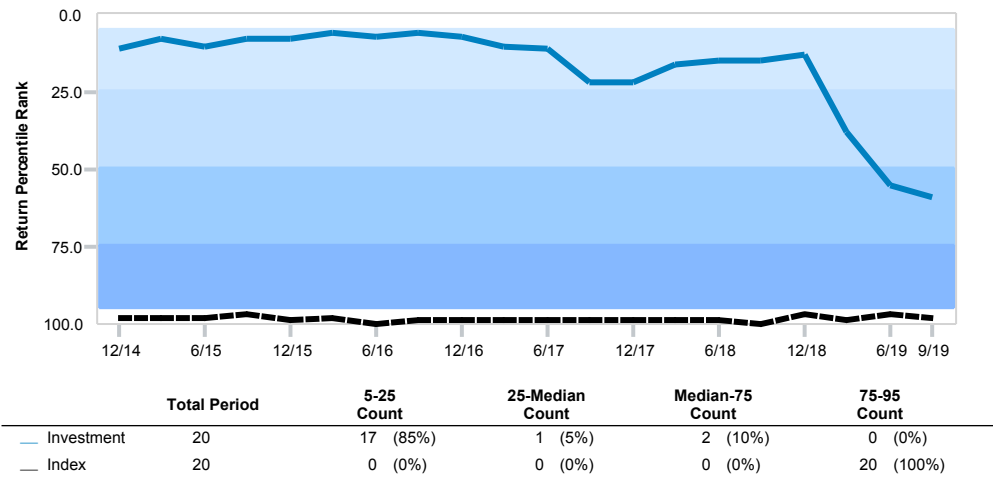
Risk and Return 5 Years



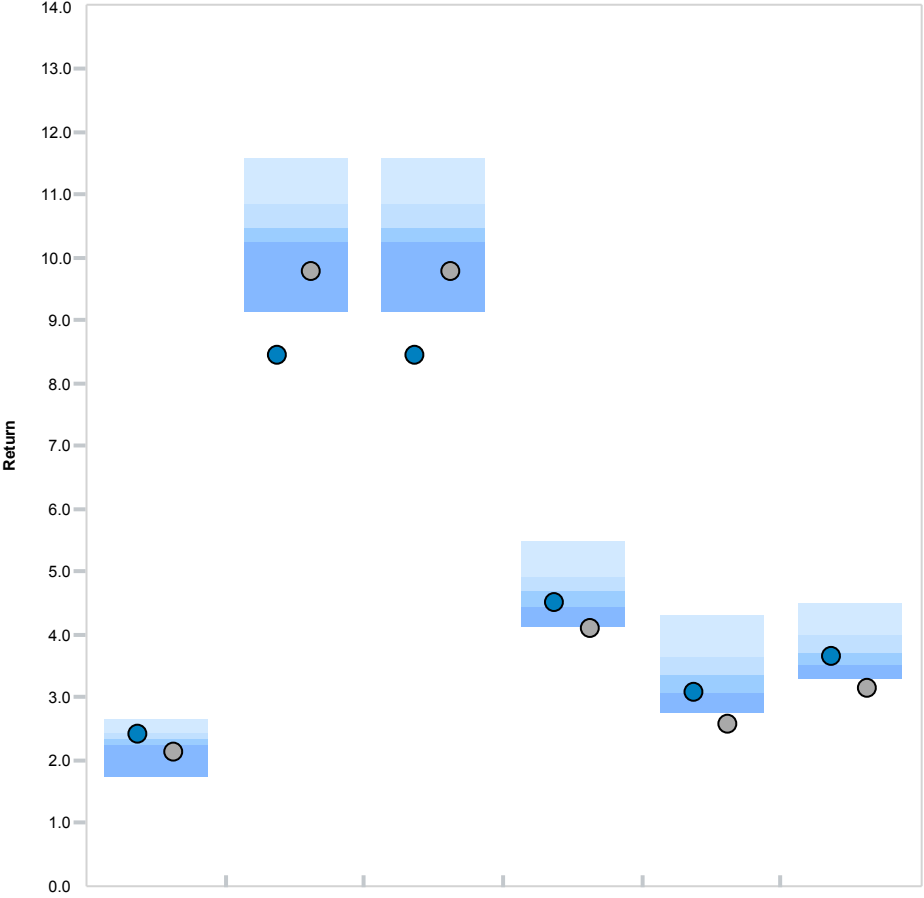
3 Year Rolling Percentile Rank IM U.S. Broad Market Core Fixed Income (SA+CF)



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

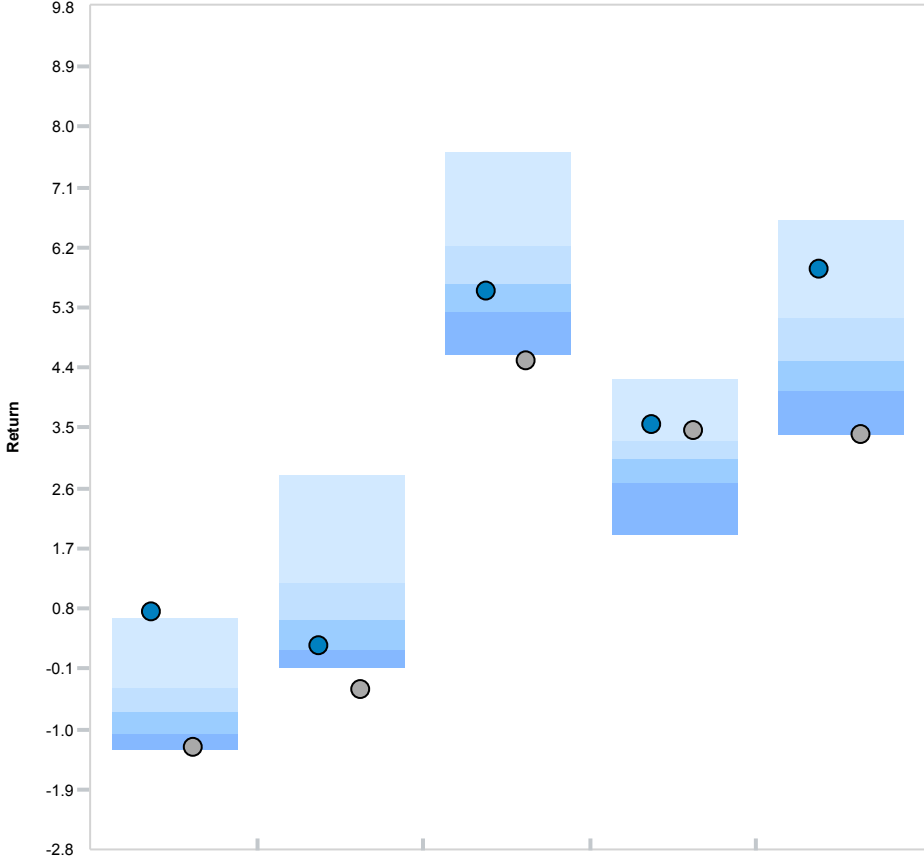


Plan Sponsor Peer Group Analysis vs. IM U.S. Broad Market Core Fixed Income (SA+CF)



	QTR	FYTD	1 YR	2 YR	3 YR	5 YR
Investment	2.42 (32)	8.45 (97)	8.45 (97)	4.52 (66)	3.07 (76)	3.65 (59)
Index	2.11 (89)	9.78 (88)	9.78 (88)	4.11 (96)	2.58 (98)	3.13 (98)
Median	2.33	10.47	10.47	4.69	3.35	3.72

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



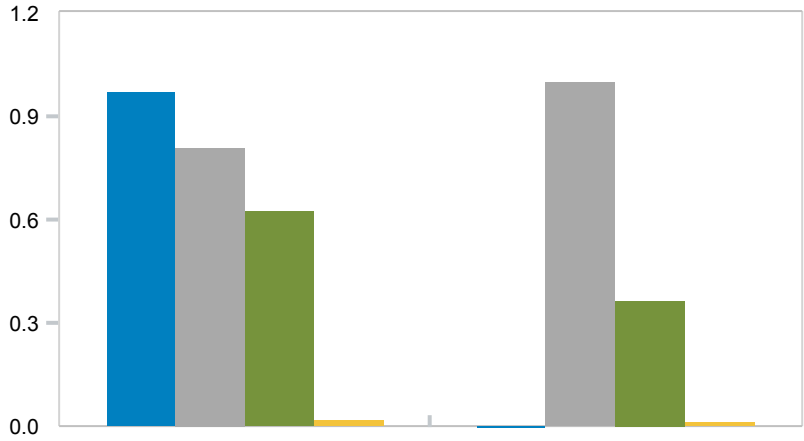
	4 Quarters Ending Sep-2018	4 Quarters Ending Sep-2017	4 Quarters Ending Sep-2016	4 Quarters Ending Sep-2015	4 Quarters Ending Sep-2014
Investment	0.74 (4)	0.23 (72)	5.53 (62)	3.53 (12)	5.87 (12)
Index	-1.28 (95)	-0.42 (100)	4.50 (96)	3.44 (17)	3.39 (96)
Median	-0.73	0.63	5.67	3.02	4.51

Comparative Performance

	1 Qtr Ending Jun-2019	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
Investment	2.15 (98)	2.25 (99)	1.37 (52)	-0.04 (91)	0.56 (2)	-0.60 (6)
Index	2.81 (94)	2.49 (96)	2.03 (8)	-0.18 (95)	0.00 (27)	-1.35 (46)
Median	3.14	3.22	1.39	0.18	-0.09	-1.37

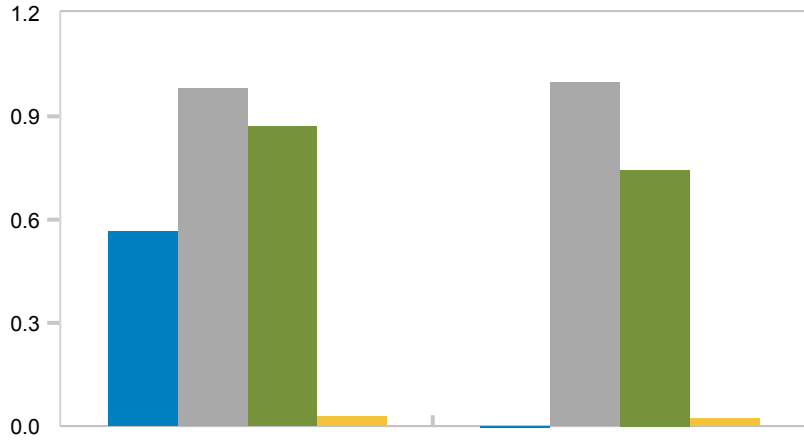


Risk / Reward Historical Statistics 3 Years Ending September 30, 2019



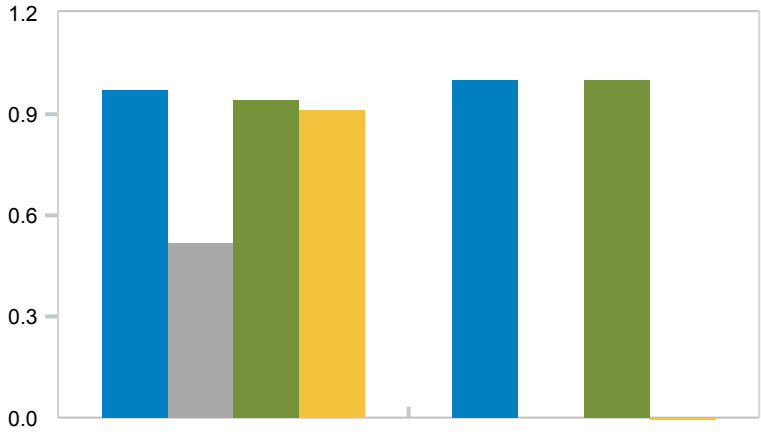
Alpha	0.97	0.00
Beta	0.81	1.00
Sharpe Ratio	0.63	0.36
Treynor Ratio	0.02	0.01

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



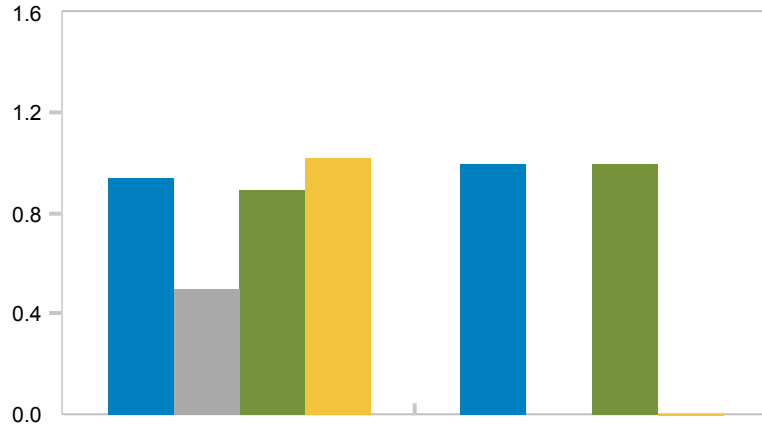
Alpha	0.57	0.00
Beta	0.98	1.00
Sharpe Ratio	0.87	0.74
Treynor Ratio	0.03	0.02

Benchmark Relative Historical Statistics 3 Years Ending September 30, 2019



Actual Correlation	0.97	1.00
Information Ratio	0.52	N/A
R-Squared	0.94	1.00
Tracking Error	0.91	0.00

Benchmark Relative Historical Statistics 5 Years Ending September 30, 2019



Actual Correlation	0.95	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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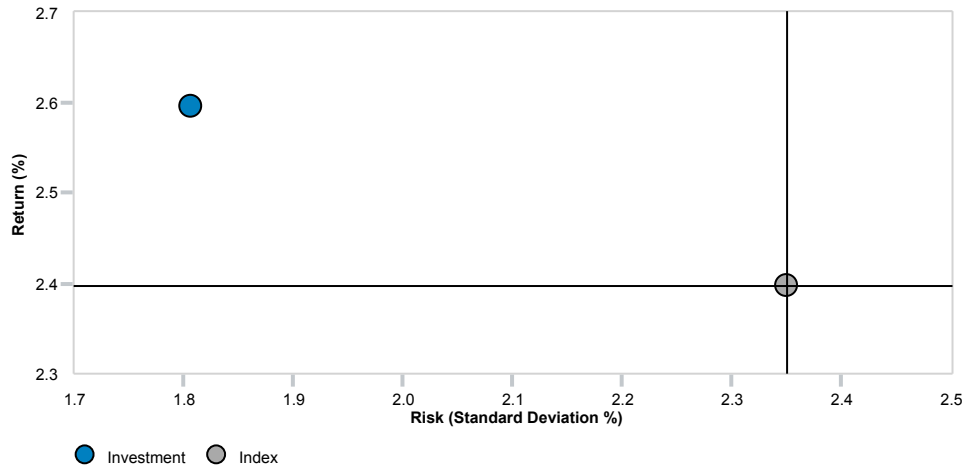
Historical Statistics 3 Years

	Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters
Investment	2.60	1.81	0.62	82.55	10	52.25	2
Index	2.40	2.35	0.39	100.00	9	100.00	3

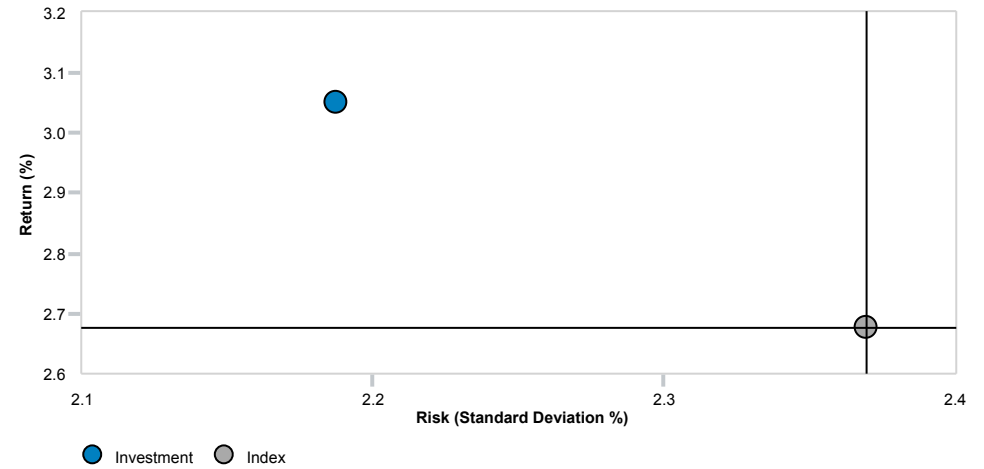
Historical Statistics 5 Years

	Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters
Investment	3.05	2.19	0.98	104.49	16	77.87	4
Index	2.68	2.37	0.76	100.00	15	100.00	5

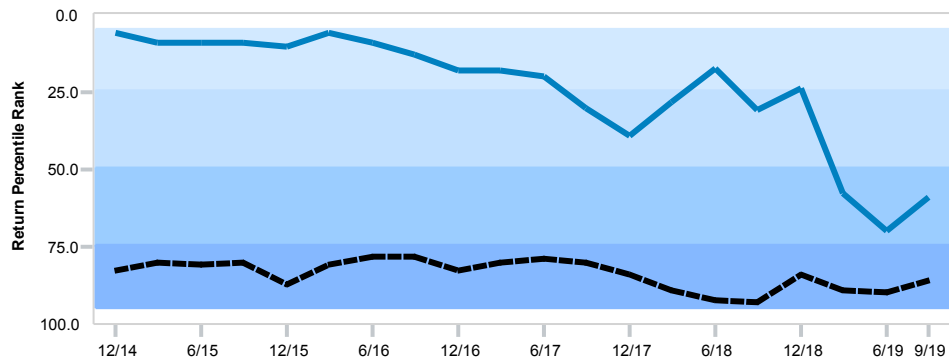
Risk and Return 3 Years



Risk and Return 5 Years

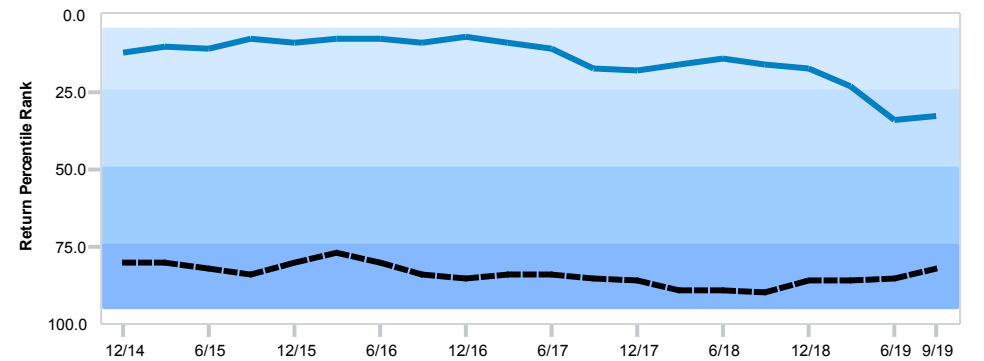


3 Year Rolling Percentile Rank IM U.S. Intermediate Duration (SA+CF)



	Total Period	5-25 Count	25-Median Count	Median-75 Count	75-95 Count
Investment	20	13 (65%)	4 (20%)	3 (15%)	0 (0%)
Index	20	0 (0%)	0 (0%)	0 (0%)	20 (100%)

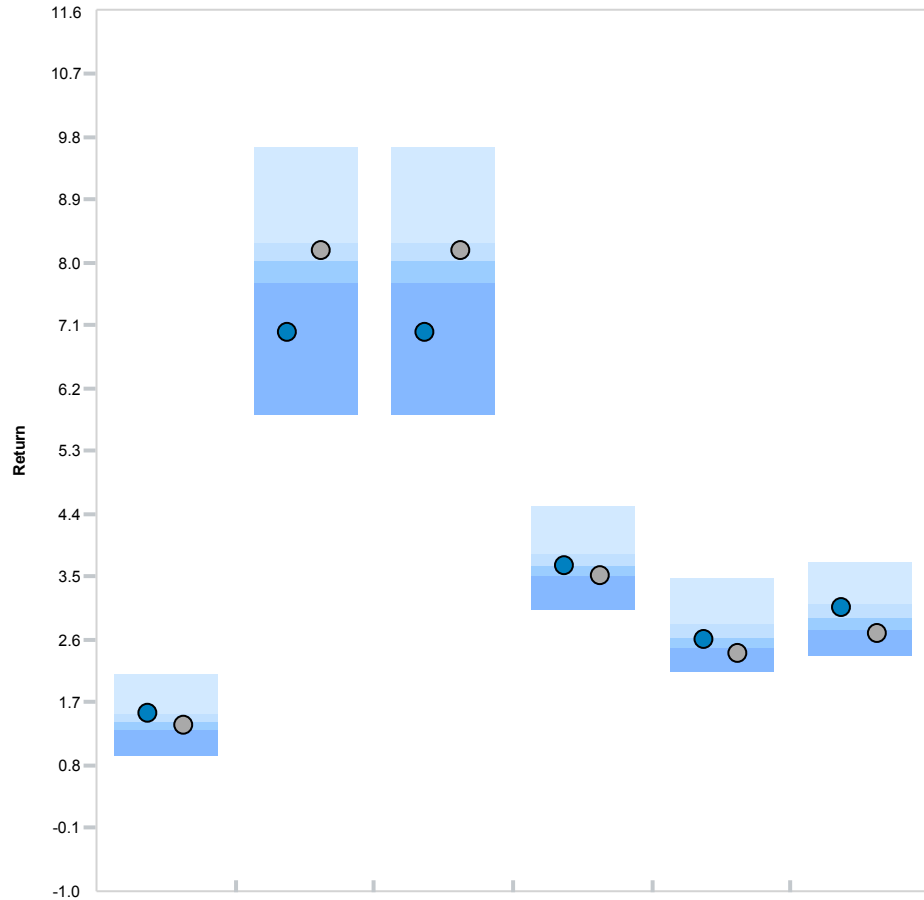
5 Year Rolling Percentile Rank IM U.S. Intermediate Duration (SA+CF)



	Total Period	5-25 Count	25-Median Count	Median-75 Count	75-95 Count
Investment	20	18 (90%)	2 (10%)	0 (0%)	0 (0%)
Index	20	0 (0%)	0 (0%)	0 (0%)	20 (100%)

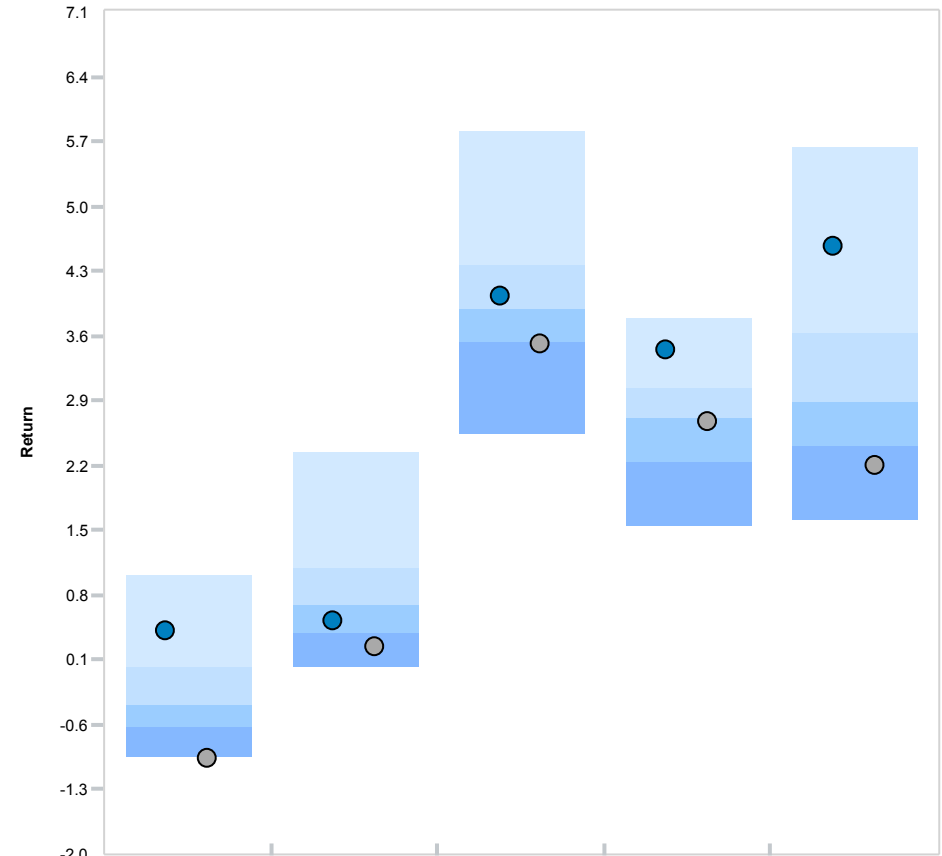


Plan Sponsor Peer Group Analysis vs. IM U.S. Intermediate Duration (SA+CF)



	QTR	FYTD	1 YR	2 YR	3 YR	5 YR
● Investment	1.55 (24)	6.99 (86)	6.99 (86)	3.65 (54)	2.60 (59)	3.05 (33)
● Index	1.37 (63)	8.17 (39)	8.17 (39)	3.50 (76)	2.40 (86)	2.68 (82)
Median	1.42	8.04	8.04	3.67	2.63	2.92

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



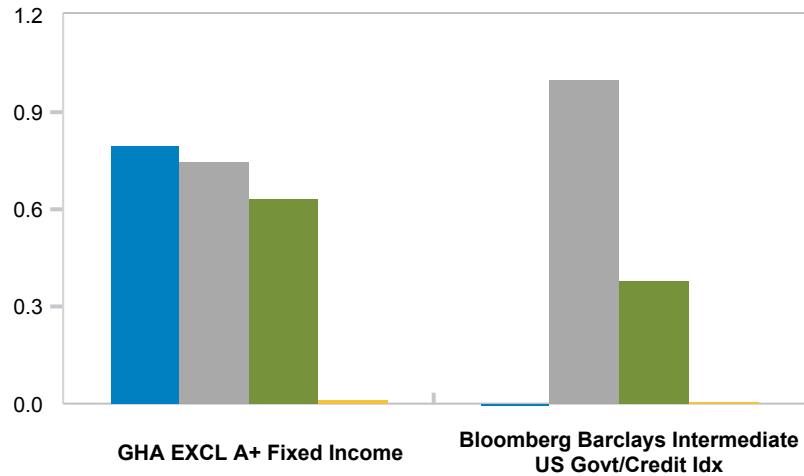
	4 Quarters Ending Sep-2018	4 Quarters Ending Sep-2017	4 Quarters Ending Sep-2016	4 Quarters Ending Sep-2015	4 Quarters Ending Sep-2014
● Investment	0.42 (13)	0.52 (67)	4.03 (42)	3.45 (7)	4.56 (11)
● Index	-0.96 (96)	0.23 (88)	3.52 (77)	2.68 (52)	2.20 (85)
Median	-0.39	0.69	3.90	2.70	2.88

Comparative Performance

	1 Qtr Ending Jun-2019	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
Investment	1.94 (90)	1.90 (91)	1.42 (43)	0.24 (79)	0.50 (4)	-0.50 (17)
Index	2.59 (33)	2.32 (69)	1.65 (22)	0.21 (86)	0.01 (86)	-0.98 (69)
Median	2.51	2.45	1.38	0.37	0.12	-0.90

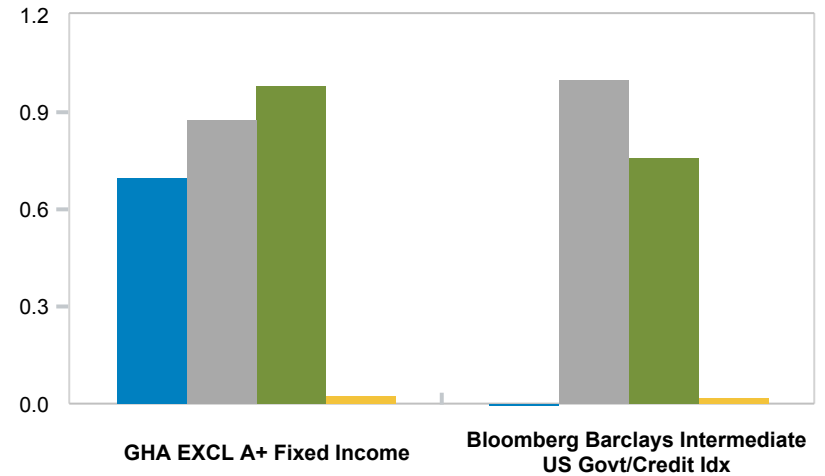


Risk / Reward Historical Statistics 3 Years Ending September 30, 2019



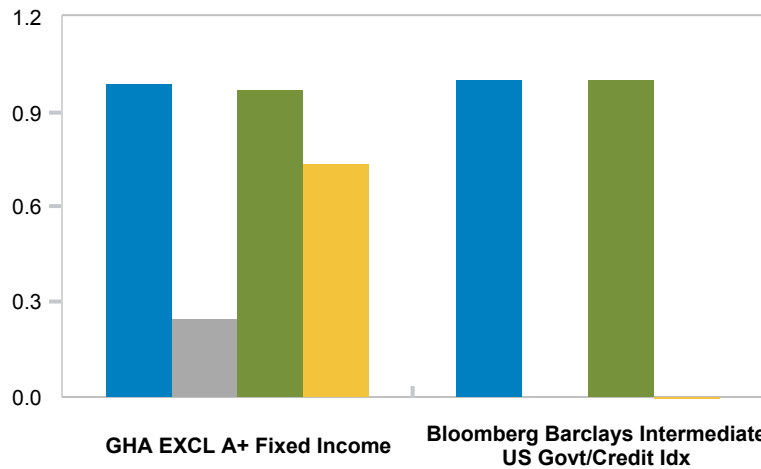
Alpha	0.80	0.00
Beta	0.74	1.00
Sharpe Ratio	0.63	0.38
Treynor Ratio	0.01	0.01

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



Alpha	0.70	0.00
Beta	0.88	1.00
Sharpe Ratio	0.98	0.76
Treynor Ratio	0.02	0.02

Benchmark Relative Historical Statistics 3 Years Ending September 30, 2019



Actual Correlation	0.98	1.00
Information Ratio	0.25	N/A
R-Squared	0.97	1.00
Tracking Error	0.73	0.00

Benchmark Relative Historical Statistics 5 Years Ending September 30, 2019



Actual Correlation	0.95	1.00
Information Ratio	0.49	N/A
R-Squared	0.90	1.00
Tracking Error	0.74	0.00

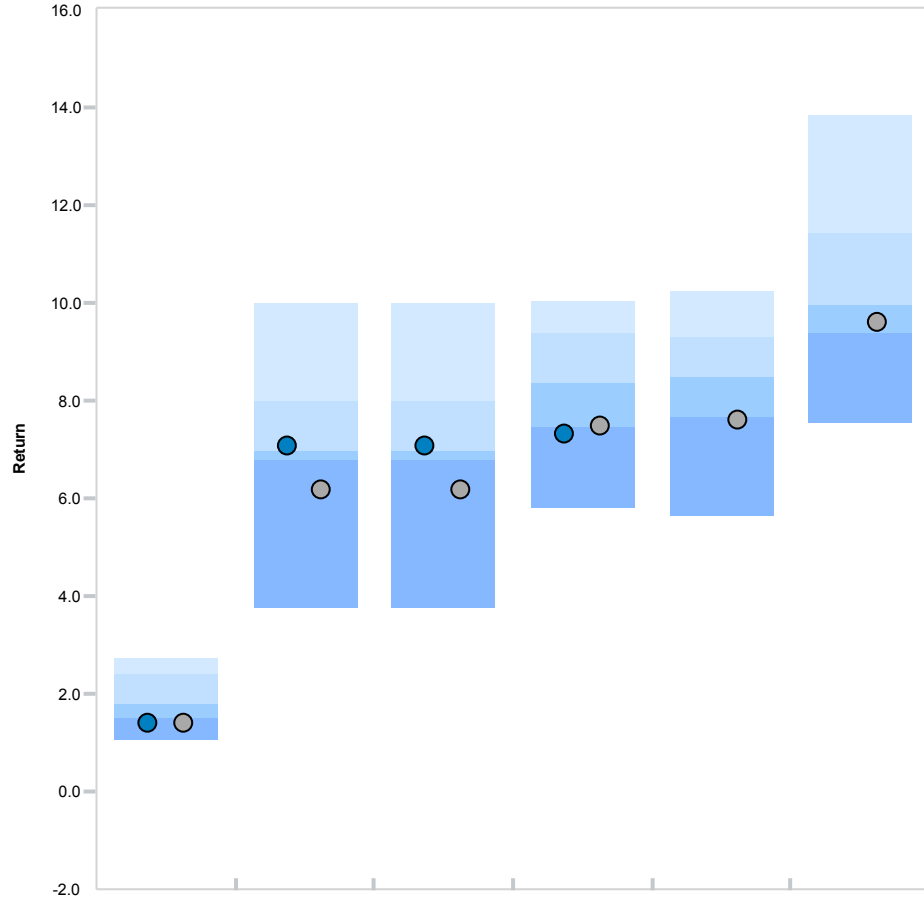
Benchmark: Bloomberg Barclays Intermediate US Govt/Credit Idx



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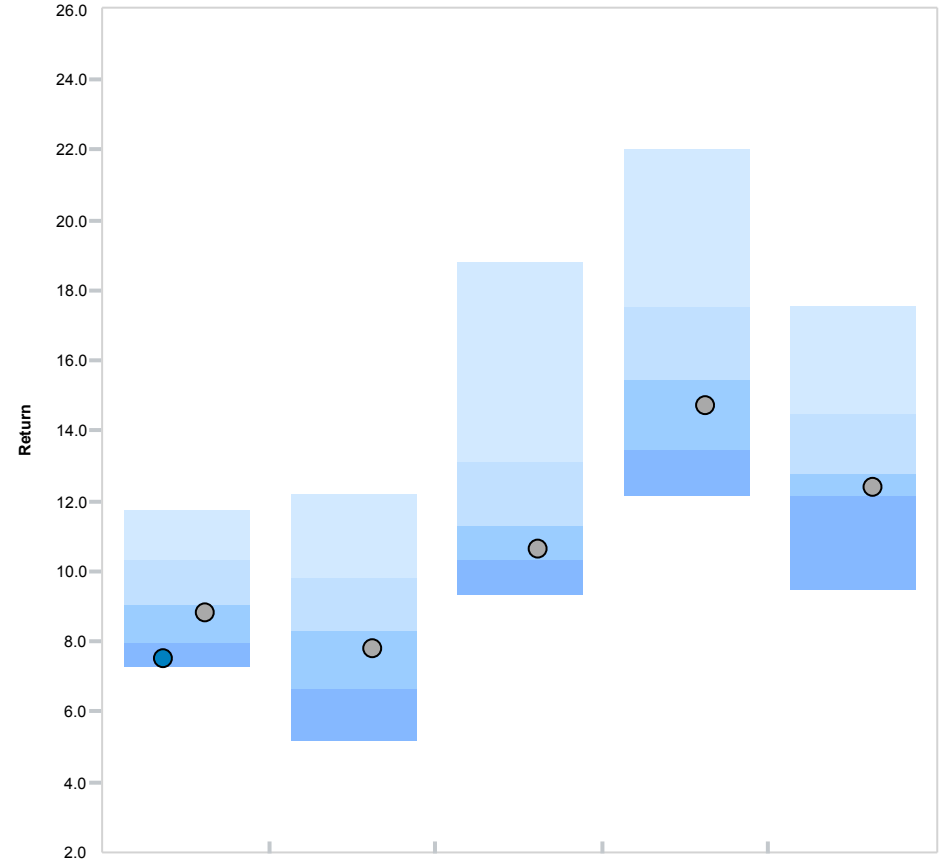


Plan Sponsor Peer Group Analysis vs. IM U.S. Open End Private Real Estate (SA+CF)



	QTR	FYTD	1 YR	2 YR	3 YR	5 YR
● Investment	1.39 (86)	7.06 (43)	7.06 (43)	7.29 (79)	N/A	N/A
● Index	1.38 (86)	6.16 (90)	6.16 (90)	7.48 (75)	7.59 (85)	9.59 (73)
Median	1.79	6.96	6.96	8.35	8.49	9.97

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



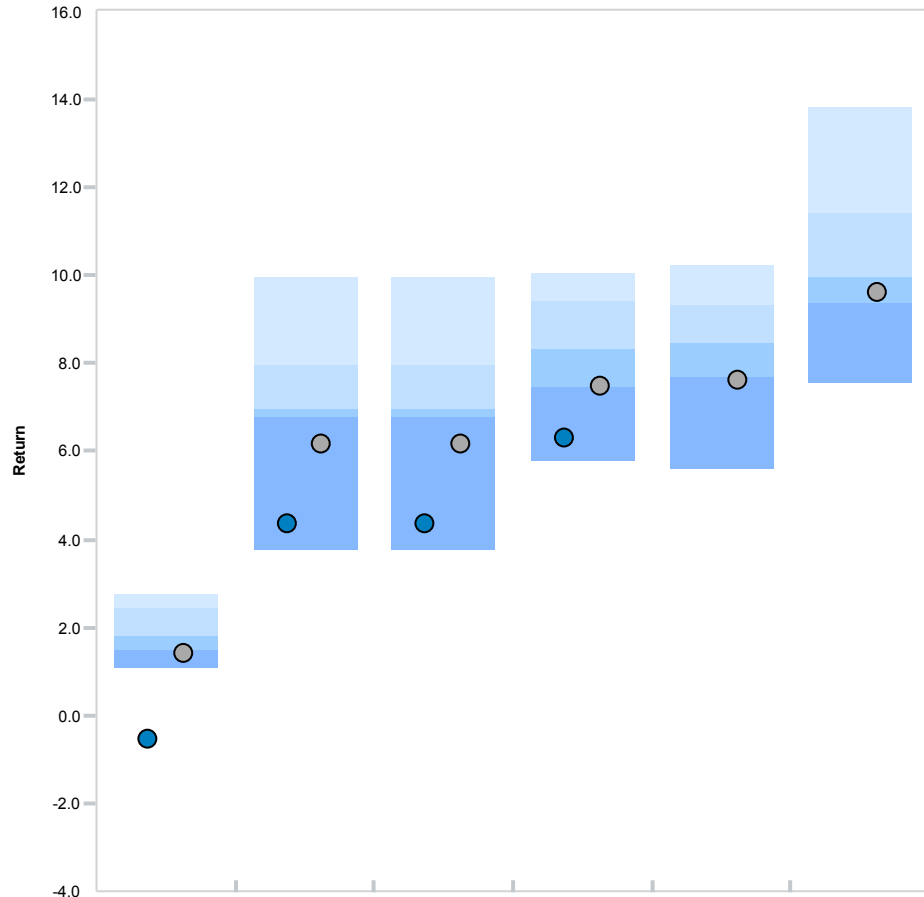
	4 Quarters Ending Sep-2018	4 Quarters Ending Sep-2017	4 Quarters Ending Sep-2016	4 Quarters Ending Sep-2015	4 Quarters Ending Sep-2014
● Investment	7.51 (92)	N/A	N/A	N/A	N/A
● Index	8.82 (59)	7.81 (60)	10.62 (69)	14.71 (62)	12.39 (68)
Median	9.04	8.29	11.32	15.45	12.78

Comparative Performance

	1 Qtr Ending Jun-2019	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
Investment	1.79 (13)	2.07 (35)	1.62 (62)	1.59 (89)	2.17 (55)	1.84 (83)
Index	1.34 (66)	1.69 (81)	1.62 (62)	2.09 (54)	2.13 (61)	2.17 (55)
Median	1.46	1.99	1.76	2.10	2.22	2.21

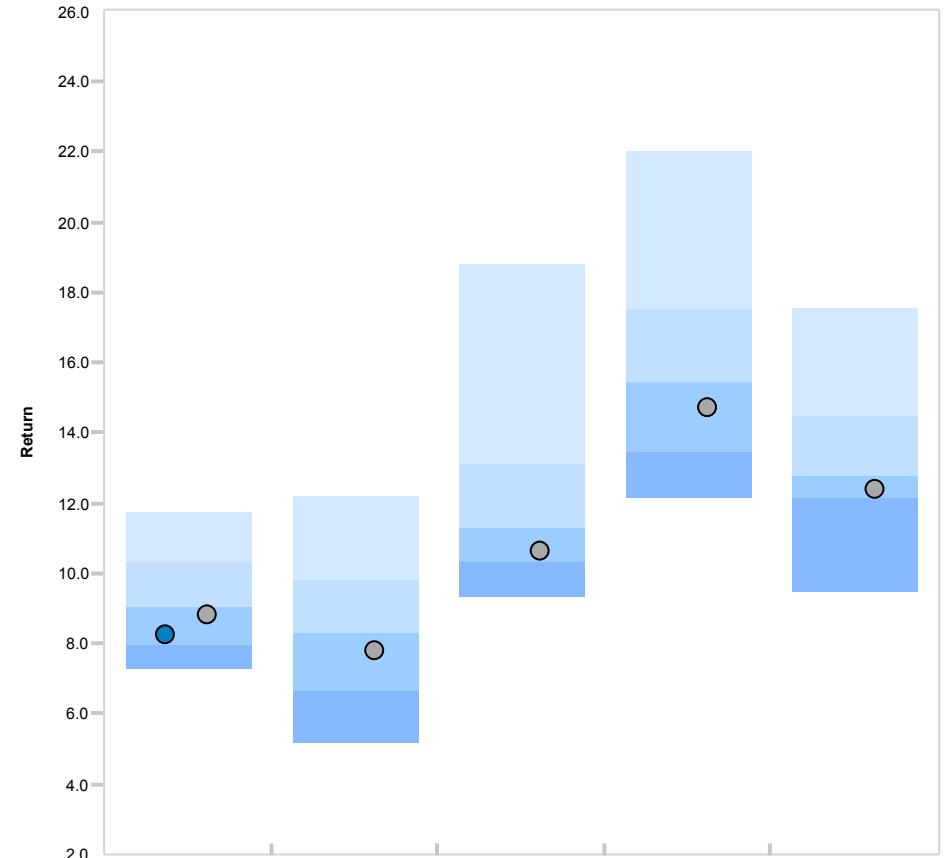


Plan Sponsor Peer Group Analysis vs. IM U.S. Open End Private Real Estate (SA+CF)



	QTR	FYTD	1 YR	2 YR	3 YR	5 YR
● Investment	-0.55 (100)	4.35 (95)	4.35 (95)	6.29 (94)	N/A	N/A
● Index	1.38 (86)	6.16 (90)	6.16 (90)	7.48 (75)	7.59 (85)	9.59 (73)
Median	1.79	6.96	6.96	8.35	8.49	9.97

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 Jun-2019	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
Investment	1.39 (62)	2.01 (40)	1.45 (74)	1.96 (58)	1.99 (70)	2.00 (70)
Index	1.34 (66)	1.69 (81)	1.62 (62)	2.09 (54)	2.13 (61)	2.17 (55)
Median	1.46	1.99	1.76	2.10	2.22	2.21



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 September 30, 2019**

	Estimated Annual Fee (%)	Market Value (\$)	Estimated Annual Fee (\$)	Fee Schedule
Ceredex Equity	0.57	25,381,621	144,217	0.75 % of First \$10 M 0.45 % of Next \$40 M 0.25 % Thereafter
Rhumblin R1000G	0.05	12,705,408	6,353	0.05 % of Assets
Polen Capital	0.60	12,890,756	77,345	0.60 % of Assets
Mutual of America Equity	0.07	15,966,814	11,177	0.07 % of Assets
Great Lakes SMID Cap	0.55	7,731,454	42,523	0.55 % of First \$50 M 0.45 % of Next \$50 M 0.35 % Thereafter
Vanguard R2000 (VRTIX)	0.08	7,659,036	6,127	0.08 % of Assets
JPM International Equity	0.75	6,636,399	49,773	0.75 % of Assets
Vanguard Intl Eq (VTMGX)	0.09	7,230,878	6,508	0.09 % of Assets
Total Equity Composite	0.36	96,202,366	344,022	
GHA EXCL A+ Fixed Income	0.25	22,772,900	56,932	0.25 % of Assets
GHA A+ Fixed Income	0.25	26,141,219	65,353	0.25 % of Assets
Total Fixed Income Composite	0.25	48,914,119	122,285	
Barings Real Estate	1.10	6,914,565	76,060	1.10 % of Assets
ASB Real Estate	1.21	5,834,716	70,847	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	12,749,281	146,907	
R&D Cash		245,840	-	
Total Fund Composite	0.39	158,111,606	613,215	

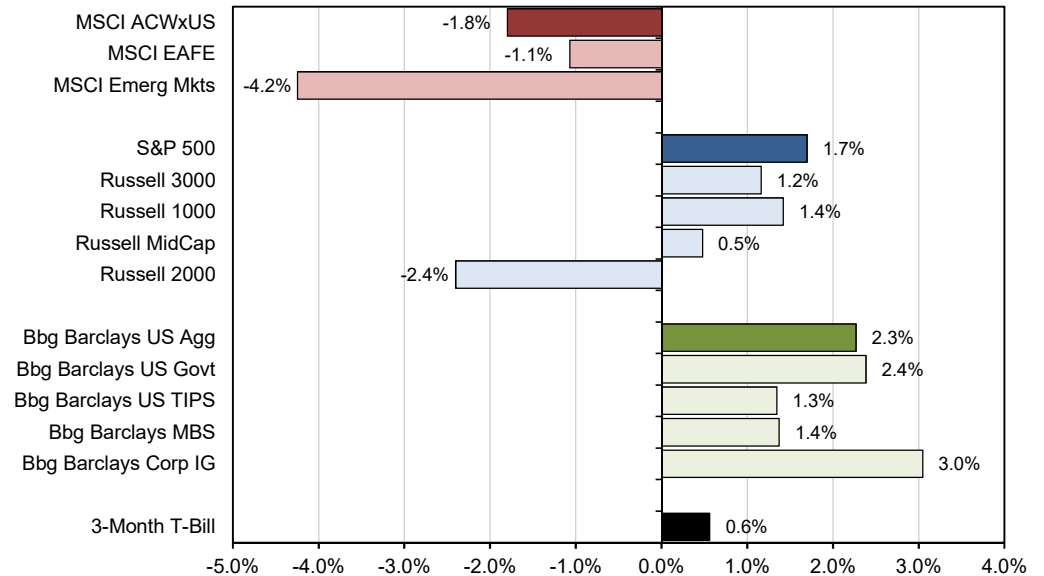


3rd Quarter 2019 Market Environment

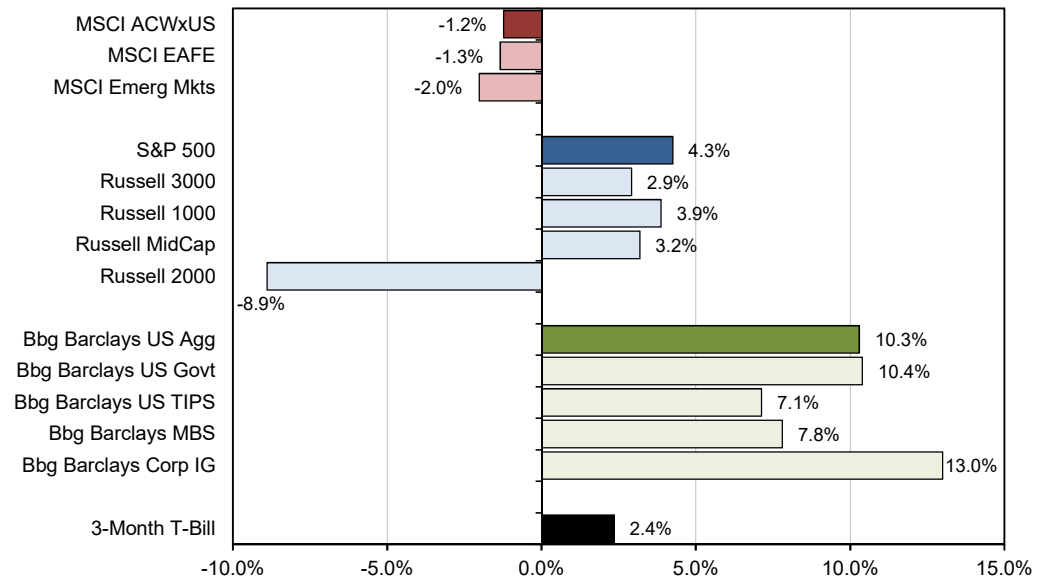


- Broad asset class returns were mixed during the 3rd quarter of 2019 with both US large cap equity and fixed income indices extending their year-to-date gains while US small cap and international indices declined. Volatility was high during the period as investors weighed the effects of ongoing trade disruption and slowing global economic data against the announcement of several new central bank stimulus measures. US stocks continued their year-to-date outperformance relative to international stocks during the period. US markets faced headwinds from continued escalation in the ongoing trade dispute with China, slowing economic data, particularly with regards to manufacturing, and political uncertainty following a late quarter impeachment inquiry against President Donald Trump. However, markets were supported by easing monetary policy from the Federal Reserve (Fed) which cut interest rates twice during the period. In general, lower risk assets performed better through the period as investors weighed the increased risk of a recession. Within domestic equity markets, large cap stocks outperformed small cap equities during the quarter with the S&P 500 Index returning 1.7% versus a -2.4% return on the small cap Russell 2000 Index. US equity returns over the 1-year period were positive for large and mid-cap stocks, returning 4.3% and 3.2% respectively, but small cap stocks posted a loss, falling -8.9%.
- International markets posted negative returns for the 3rd quarter. Similar to US markets, international returns were impacted by continued weakness in economic data, heightened geopolitical uncertainty around global trade and Brexit and newly announced stimulus measures from global central banks including the European Central Bank (ECB) and Peoples Bank of China (PBoC). International returns also faced headwinds from a strengthening US dollar (USD) which appreciated against most major currencies during the period. Developed markets continued their outperformance relative to emerging markets during the period with the MSCI EAFE Index falling -1.1% versus a -4.2% decline for the MSCI Emerging Markets Index. Both developing and emerging markets posted slight losses over the 1-year period, returning -1.3% and -2.0% respectively.
- Fixed income returns outperformed equities during the 3rd quarter as investors looked for relative safety amid the equity market volatility. The broad market Bloomberg Barclays Aggregate Index gained 2.3% as interest rates fell following central bank stimulus from the Fed and other global central banks. The US Treasury Yield Curve also inverted in August, contributing to growing concern around the potential for an upcoming recession. Investment grade corporate issues were the best performing securities for the third quarter in a row, returning 3.0%, outperforming Treasury and securitized issues. Corporate issues benefitted from their relatively high duration and yield. The bond market has meaningfully outperformed the equity market over the trailing 1-year period with the Bloomberg Barclays Aggregate posting a solid 10.3% return.

Quarter Performance

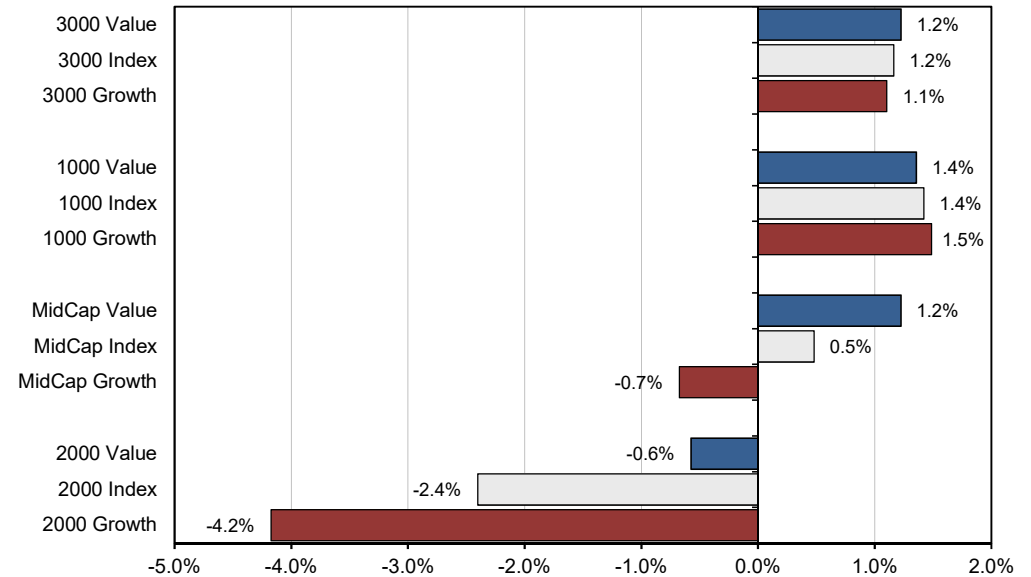


1-Year Performance

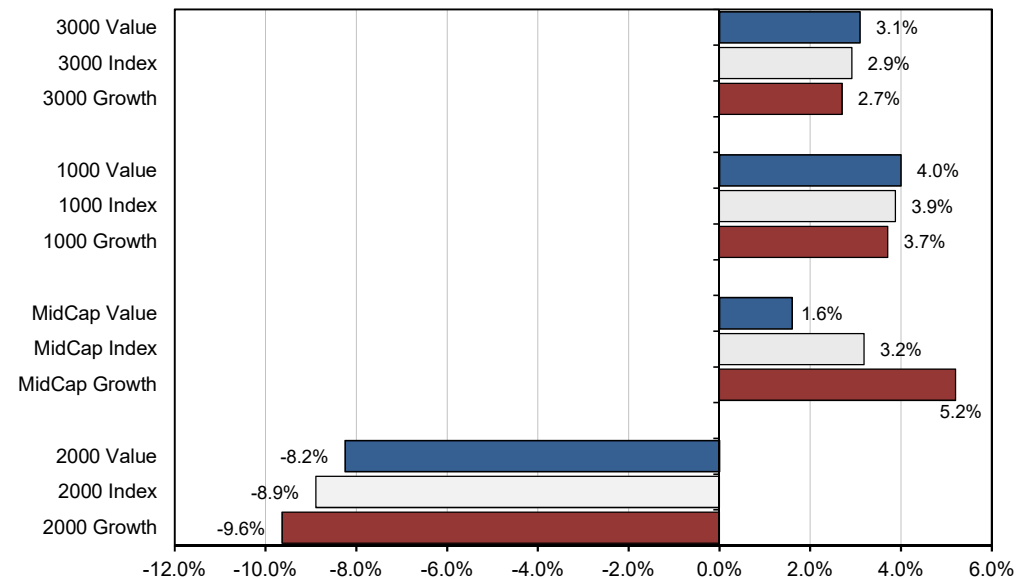


- US equity returns were modestly positive during the 3rd quarter, but results varied considerably across the style and capitalization spectrum. Data released during the quarter showed signs that the US economy could be slowing down. Weakening metrics around manufacturing and sentiment were particularly concerning and employment, typically a bright spot for the US economy, missed expectations for the pace of new jobs and hours worked. A likely contributor to the softening economic data is the ongoing trade war between the US and China. Despite last quarter's agreement to cease escalations following a meeting between President Trump and President Jinping at the G20 summit, the 3rd quarter saw the announcement and implementation of a series of new tariffs from both the US and China. Additionally, in response to new tariffs, the PBoC allowed the yuan to depreciate to its lowest level since 2008 leading US Treasury officials to accuse China of currency manipulation. Even with the apparent breakdown in relations between the two sides, both China and the US agreed to continue negotiations set to take place in October. Markets also reacted to the late quarter announcement of a formal impeachment inquiry against President Trump following a whistleblower report alleging that President Trump pressured the government of Ukraine to investigate the son of political opponent Joe Biden. Despite these substantial headwinds, the US equity market found support from Fed easing of monetary policy in the form of two separate interest rate cuts and ended the period with a gain. The Russell 3000 Index returned 1.2% and 2.9% for the quarter and 1-year period respectively.
- During the quarter, higher market cap stocks outperformed lower market cap stocks across the style spectrum. The large cap Russell 1000 Index gained 1.4% during the period versus a -2.4% return for the small cap Russell 2000 Index. Investors may have been attracted to large cap names as a result of the quarter's volatility as large cap stocks are typically viewed as less risky than their small cap counterparts. When viewed over the most recent 1-year period, large cap stocks significantly outperformed small cap stocks with the Russell 1000 posting a 3.9% gain while the while the Russell 2000 had considerable losses, declining -8.9%.
- In general, value stocks outperformed growth stocks during the 3rd quarter as investors gravitated toward the relative safety these securities typically provide. However, large cap growth stocks slightly outperformed large cap value stocks due to favorable holdings in the technology and industrials sectors as well as a large underweight to the underperforming energy sector. The Russell 1000 Growth Index was the best performing style index for the period, returning 1.5%, with the small cap growth index posting the lowest relative return, a loss of -4.2%. Results over the 1-year period are mixed with value stocks outperforming in large and small cap and growth stocks outperforming in mid-cap.

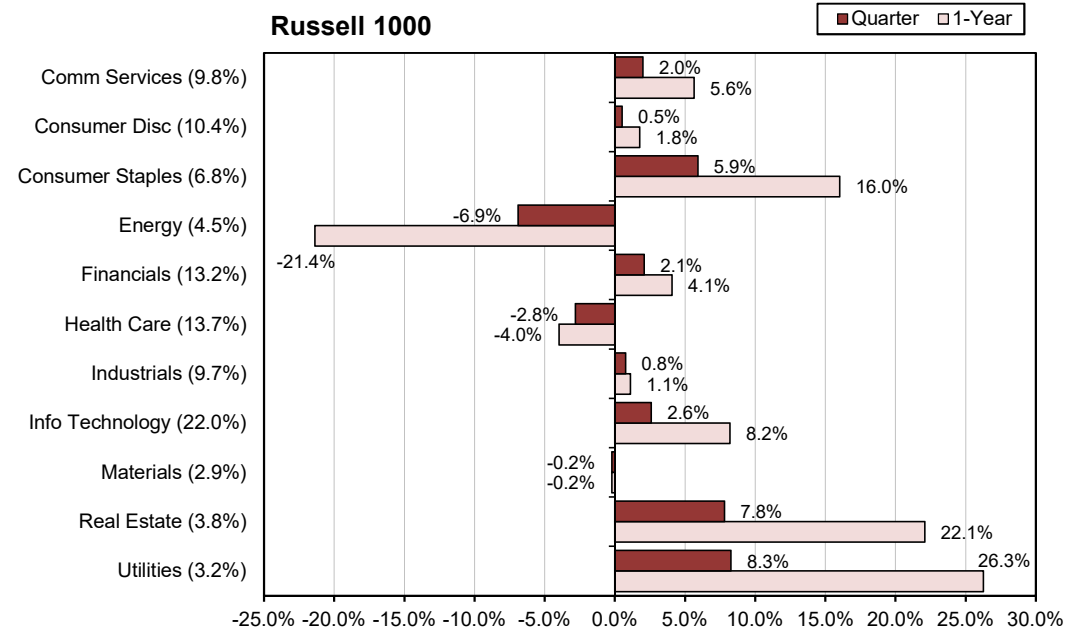
Quarter Performance - Russell Style Series



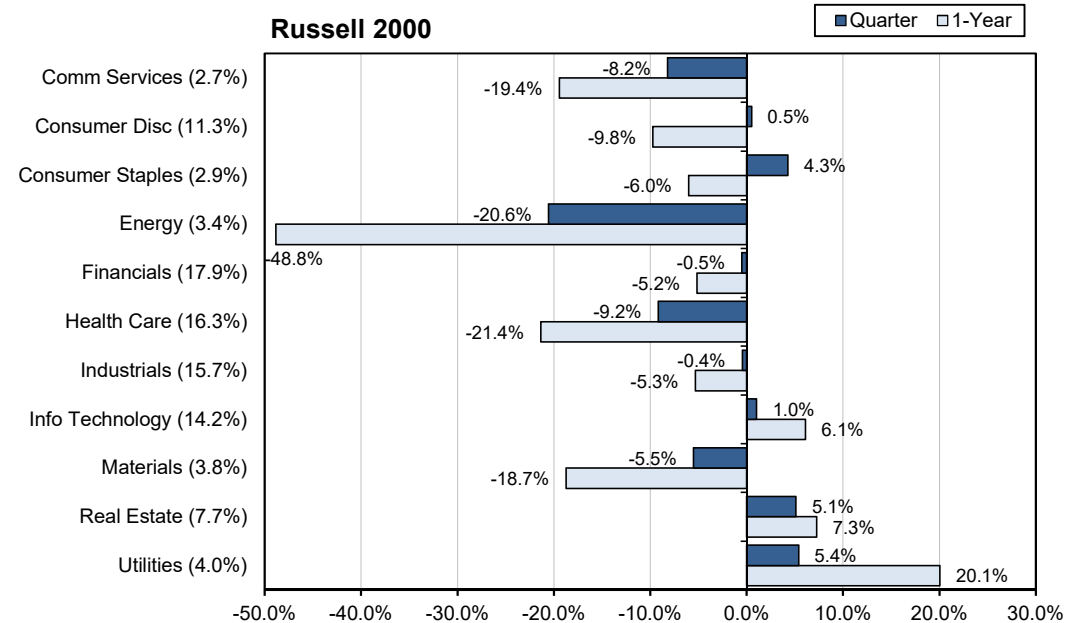
1-Year Performance - Russell Style Series



- Sector performance was mixed across large cap sectors for the 3rd quarter. There were gains for eight out of eleven sectors within the Russell 1000 Index during the period with six sectors outpacing the return of the index. Defensive sectors such as utilities, real estate and consumer staples were the best performers through the quarter returning 8.3%, 7.8% and 16.0% respectively as investors looked toward these sectors for their higher yields and lower historical volatility. Energy, health care and materials stocks were the worst performers during the period. Energy stocks fell -6.9% as crude oil prices fell during the period despite a sharp upward spike in September following a terrorist attack in Saudi Arabia that temporarily reduced the country's oil production, causing a large disruption in supply. Health care stocks also lagged, declining -2.8%, as discussions in Washington around the potential for increased regulation on drug pricing acted as a headwind. Health care reform has also been a major topic of discussion among candidates for the 2020 US Presidential election, creating additional uncertainty within the sector. Materials returned -0.2% as demand concerns weighed on the economically sensitive sector. Returns over the 1-year period were also generally positive with eight out of eleven sectors posting gains. Similar to the quarter's results, defensive sectors outperformed by a considerable margin. Utilities, real estate and consumer staples performed well returning 26.3%, 22.1% and 16.0% respectively. Technology returns were also strong gaining 8.2%. Energy, health care and materials were the only sectors to post negative results over the 1-year period with energy falling -21.4%, health care dropping -4.0% and materials returning -0.2%.



- Quarterly results for small cap sectors were worse than their large capitalization counterparts with all eleven sectors trailing their corresponding large cap equivalents. Five of eleven economic sectors produced gains during the period with seven of eleven sectors outpacing the Russell 2000 Index return for the quarter. Similar to large caps, defensive sectors performed well as investors gravitated toward their relative safety and higher yields. Utilities were the best performers, returning 5.4% followed closely by REITs and consumer staples which returned 5.1% and 4.3% respectively. The cyclically oriented energy sector was the largest detractor for the period, posting a loss of -20.6%. Health care and communication services stocks also experienced notable declines, falling -9.2% and -8.2% respectively. Over the trailing 1-year period, returns were broadly negative. Utilities, real estate and technology were the only sectors to post gains returning 20.1%, 7.3% and 6.1%. The energy sector was an outlier in terms of negative returns dropping -48.8% during the period. There were also notable losses in health care, communication services and materials which declined -21.4%, -19.4% and -18.7% respectively.



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

Top 10 Weighted Stocks				
Russell 1000	Weight	1-Qtr Return	1-Year Return	Sector
Microsoft Corp	3.82%	4.1%	22.9%	Information Technology
Apple Inc	3.68%	13.6%	0.8%	Information Technology
Amazon.com Inc	2.61%	-8.3%	-13.3%	Consumer Discretionary
Facebook Inc A	1.55%	-7.7%	8.3%	Communication Services
Berkshire Hathaway Inc B	1.48%	-2.4%	-2.8%	Financials
JPMorgan Chase & Co	1.36%	6.0%	7.4%	Financials
Alphabet Inc Class C	1.35%	12.8%	2.1%	Communication Services
Alphabet Inc A	1.33%	12.8%	1.2%	Communication Services
Johnson & Johnson	1.25%	-6.4%	-3.8%	Health Care
Procter & Gamble Co	1.12%	14.2%	54.0%	Consumer Staples

Top 10 Performing Stocks (by Quarter)				
Russell 1000	Weight	1-Qtr Return	1-Year Return	Sector
Insulet Corp	0.04%	38.2%	55.7%	Health Care
CyrusOne Inc	0.03%	37.9%	28.8%	Real Estate
KLA Corp	0.09%	35.7%	61.1%	Information Technology
New York Community Bancorp Inc	0.02%	27.6%	28.7%	Financials
Entegris Inc	0.02%	26.3%	63.9%	Information Technology
Pilgrims Pride Corp	0.01%	26.2%	77.1%	Consumer Staples
Western Digital Corp	0.06%	25.4%	5.6%	Information Technology
DocuSign Inc	0.03%	24.6%	17.8%	Information Technology
Target Corp	0.19%	24.4%	24.3%	Consumer Discretionary
XPO Logistics Inc	0.02%	23.8%	-37.3%	Industrials

Bottom 10 Performing Stocks (by Quarter)				
Russell 1000	Weight	1-Qtr Return	1-Year Return	Sector
2U Inc	0.00%	-56.7%	-78.3%	Information Technology
PG&E Corp	0.02%	-56.4%	-78.3%	Utilities
Covetrus Inc	0.00%	-51.4%	N/A	Health Care
Sarepta Therapeutics Inc	0.02%	-50.4%	-53.4%	Health Care
Nektar Therapeutics Inc	0.01%	-48.8%	-70.1%	Health Care
DXC Technology Co	0.03%	-46.2%	-67.9%	Information Technology
Antero Resources Corp	0.00%	-45.4%	-82.9%	Energy
Range Resources Corp	0.00%	-45.0%	-77.3%	Energy
Pluralsight Inc Class A	0.00%	-44.6%	-47.5%	Information Technology
Fluor Corp	0.01%	-42.5%	-66.1%	Industrials

Top 10 Weighted Stocks				
Russell 2000	Weight	1-Qtr Return	1-Year Return	Sector
NovoCure Ltd	0.34%	18.3%	42.7%	Health Care
Haemonetics Corp	0.33%	4.8%	10.1%	Health Care
Trex Co Inc	0.28%	26.8%	18.1%	Industrials
Science Applications International	0.27%	1.3%	10.4%	Information Technology
Portland General Electric Co	0.26%	4.8%	27.2%	Utilities
ONE Gas Inc	0.26%	7.0%	19.5%	Utilities
First Industrial Realty Trust Inc	0.26%	8.3%	29.3%	Real Estate
Southwest Gas Holdings Inc	0.26%	2.2%	18.2%	Utilities
Maximus Inc	0.25%	6.9%	20.4%	Information Technology
Teladoc Health Inc	0.25%	2.0%	-21.6%	Health Care

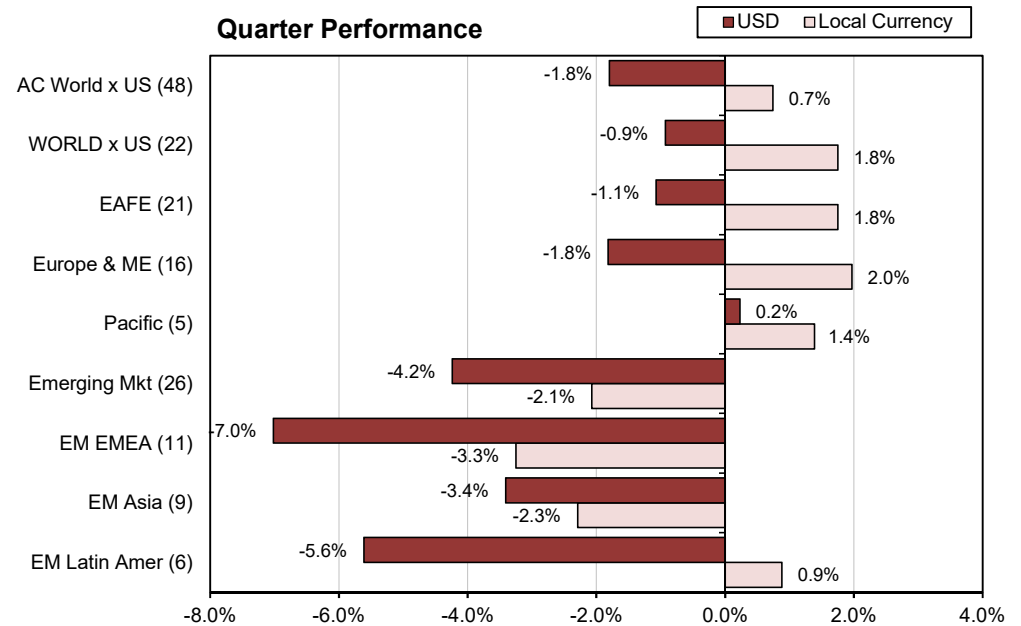
Top 10 Performing Stocks (by Quarter)				
Russell 2000	Weight	1-Qtr Return	1-Year Return	Sector
NextCure Inc	0.00%	105.9%	N/A	Health Care
Dova Pharmaceuticals Inc	0.01%	98.2%	33.3%	Health Care
WW International Inc	0.09%	98.0%	-47.5%	Consumer Discretionary
R.R.Donnelley & Sons Co	0.01%	94.7%	-27.6%	Industrials
Infinera Corp	0.05%	87.3%	-25.3%	Information Technology
Lannett Co Inc	0.02%	84.8%	135.8%	Health Care
Owens & Minor Inc	0.02%	81.6%	-64.4%	Health Care
Allakos Inc	0.08%	81.5%	74.8%	Health Care
Solid Biosciences Inc	0.01%	79.8%	-78.1%	Health Care
Ardelyx Inc	0.01%	74.7%	8.0%	Health Care

Bottom 10 Performing Stocks (by Quarter)				
Russell 2000	Weight	1-Qtr Return	1-Year Return	Sector
Tocagen Inc	0.00%	-90.1%	-95.8%	Health Care
Waitr Holdings Inc Class A	0.00%	-79.6%	-88.1%	Consumer Discretionary
McDermott International Inc	0.02%	-79.1%	-89.0%	Energy
Sonim Technologies Inc	0.00%	-77.0%	N/A	Information Technology
Synlogic Inc	0.00%	-74.8%	-83.9%	Health Care
Mallinckrodt PLC	0.01%	-73.7%	-91.8%	Health Care
Clovis Oncology Inc	0.01%	-73.6%	-86.6%	Health Care
Bloom Energy Corp Class A	0.01%	-73.5%	-90.5%	Industrials
Chaparral Energy Inc Class A	0.00%	-71.5%	-92.4%	Energy
Pacific Drilling SA	0.01%	-69.3%	-99.7%	Energy

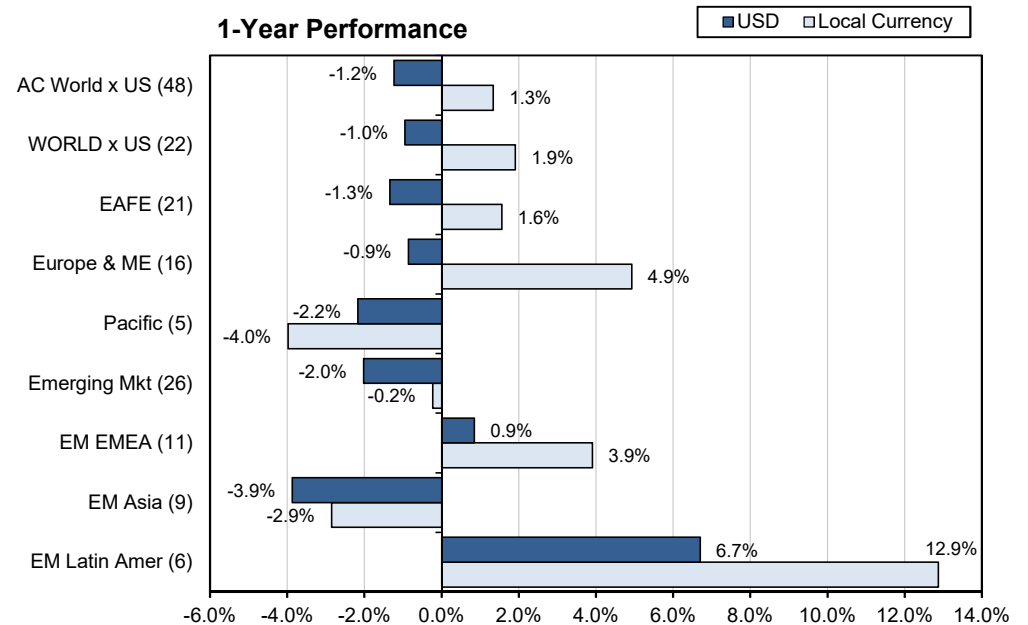


- Broad international equity returns were negative in USD terms for the 3rd quarter as US investors in international markets faced a meaningful headwind from a USD that strengthened against most major currencies. In local currency terms, developed markets were generally positive while emerging markets posted losses. The MSCI ACWI ex US Index gained 0.7% in local currency terms, but a USD investor experienced a loss of -1.8% due to the currency effect. Similar to US markets, international equity markets balanced headwinds from slowing economic data and concerns around global trade with tailwinds from central bank shifts toward more accommodative policies. Among others, the ECB and PBoC announced new stimulus measures during the quarter. The ECB cut its policy rate and committed to a new quantitative easing program and the PBoC announced new stimulus measures designed to encourage bank lending and reduce borrowing costs as it tries to counteract a cooling economy and the effects of its ongoing trade war with the US. The recent USD strength can also be seen over the 1-year period with USD returns trailing most local currency returns. Returns for the MSCI ACWI ex US Index were 1.3% in local currency terms and -1.2% in USD terms for the trailing year.
- Results for developed market international indices were generally positive in local currency terms, but negative in USD terms for the 3rd quarter, with the MSCI EAFE Index returning 1.8% and -0.9% respectively. Outside of central bank policy and trade, there were notable developments within the political sphere. In Europe, Christine Lagarde was nominated to succeed Mario Draghi as the head of the ECB. Japanese stocks rose as election results appeared to support continuity for Prime Minister Abe's ongoing policy efforts. In the UK, pro-Brexit Boris Johnson was appointed to prime minister, replacing Theresa May. The UK continues to face uncertainty around Brexit as its late October deadline to agree to a withdrawal agreement with the European Union (EU) quickly approaches. Stocks in Hong Kong fell as the government dealt with major pro-democracy protests throughout the quarter. The MSCI EAFE Index returned 1.6% and -1.3% for the last twelve months in local currency and USD terms respectively.
- Emerging markets continued their trend of 2019 underperformance relative to developed markets during the 3rd quarter, posting negative returns in both local currency and USD terms. The MSCI Emerging Markets Index fell -2.1% and -4.2% respectively. As expected, geopolitical tensions around trade continued to put pressure on emerging market stocks. Countries with greater sensitivities to commodity prices or a strong USD tended to underperform during the period. Argentina's stock market fell -46.8% as primary elections in the country saw the defeat of the country's current market friendly president. One year returns for the MSCI Emerging Market Index were -0.2% in local currency terms and -2.0% in USD terms.

Quarter Performance



1-Year Performance



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

MSCI - EAFE	Sector Weight	Quarter Return	1-Year Return
Communication Services	5.4%	-0.9%	-0.7%
Consumer Discretionary	11.5%	0.3%	-2.0%
Consumer Staples	12.0%	1.9%	6.9%
Energy	5.1%	-6.5%	-14.5%
Financials	18.6%	-2.6%	-6.3%
Health Care	11.6%	2.4%	4.3%
Industrials	14.7%	-2.0%	-2.1%
Information Technology	6.7%	-0.5%	1.8%
Materials	7.0%	-5.4%	-5.7%
Real Estate	3.6%	-1.3%	4.3%
Utilities	3.8%	2.4%	13.2%
Total	100.0%	-1.1%	-1.3%

MSCI - ACWIXUS	Sector Weight	Quarter Return	1-Year Return
Communication Services	6.8%	-2.9%	-1.0%
Consumer Discretionary	11.4%	-0.7%	-1.6%
Consumer Staples	10.2%	1.5%	6.8%
Energy	6.7%	-4.6%	-9.8%
Financials	21.6%	-3.6%	-3.2%
Health Care	8.5%	1.1%	0.9%
Industrials	11.9%	-2.5%	-2.4%
Information Technology	8.9%	2.2%	4.1%
Materials	7.3%	-6.5%	-7.2%
Real Estate	3.2%	-3.1%	5.0%
Utilities	3.5%	1.3%	12.6%
Total	100.0%	-1.8%	-1.2%

MSCI - Emerging Mkt	Sector Weight	Quarter Return	1-Year Return
Communication Services	11.6%	-5.2%	-2.5%
Consumer Discretionary	13.1%	-3.1%	0.1%
Consumer Staples	6.9%	-0.8%	3.0%
Energy	7.7%	-4.0%	-2.3%
Financials	24.7%	-8.0%	1.6%
Health Care	2.6%	-6.6%	-24.2%
Industrials	5.4%	-5.2%	-4.4%
Information Technology	15.1%	5.6%	3.9%
Materials	7.3%	-10.7%	-15.9%
Real Estate	2.9%	-8.8%	6.8%
Utilities	2.8%	-3.6%	7.2%
Total	100.0%	-4.2%	-2.0%

Country	MSCI-EAFE Weight	MSCI-ACWIXUS Weight	Quarter Return	1- Year Return
Japan	24.6%	16.5%	3.1%	-4.7%
United Kingdom	16.4%	11.0%	-2.5%	-2.9%
France	11.4%	7.6%	-1.7%	-1.6%
Switzerland	9.4%	6.3%	0.3%	12.0%
Germany	8.5%	5.7%	-4.0%	-7.1%
Australia	7.0%	4.7%	-1.4%	6.1%
Netherlands	4.0%	2.7%	2.4%	9.5%
Hong Kong	3.5%	2.4%	-11.9%	-1.8%
Spain	2.9%	2.0%	-3.8%	-3.5%
Sweden	2.6%	1.7%	-4.8%	-8.0%
Italy	2.3%	1.6%	-0.1%	3.9%
Denmark	1.8%	1.2%	-1.0%	2.3%
Singapore	1.3%	0.9%	-5.8%	-0.2%
Belgium	1.0%	0.7%	3.4%	-0.8%
Finland	1.0%	0.7%	-1.8%	-9.3%
Norway	0.7%	0.4%	-3.4%	-13.4%
Israel	0.6%	0.4%	-3.7%	-12.5%
Ireland	0.5%	0.4%	-0.6%	-4.6%
New Zealand	0.2%	0.2%	-2.9%	10.0%
Austria	0.2%	0.2%	-3.1%	-16.0%
Portugal	0.2%	0.1%	1.6%	-2.5%
Total EAFE Countries	100.0%	67.0%	-1.1%	-1.3%
Canada		7.0%	0.5%	3.0%
Total Developed Countries		74.0%	-0.9%	-1.0%
China		8.3%	-4.7%	-3.9%
Korea		3.2%	-4.5%	-13.8%
Taiwan		3.0%	5.2%	-0.2%
India		2.3%	-5.2%	4.7%
Brazil		2.0%	-4.6%	25.4%
South Africa		1.2%	-12.6%	-6.4%
Russia		1.0%	-1.4%	18.0%
Thailand		0.8%	-6.0%	-0.9%
Saudi Arabia		0.7%	-9.5%	4.0%
Mexico		0.7%	-1.7%	-14.8%
Indonesia		0.5%	-5.2%	11.9%
Malaysia		0.5%	-6.3%	-10.4%
Philippines		0.3%	-4.6%	13.1%
Poland		0.3%	-12.1%	-12.2%
Qatar		0.3%	-0.2%	5.0%
Chile		0.3%	-7.3%	-16.8%
United Arab Emirates		0.2%	-0.2%	-0.3%
Turkey		0.2%	11.7%	16.5%
Colombia		0.1%	-6.1%	-7.3%
Peru		0.1%	-9.3%	-4.0%
Greece		0.1%	-3.1%	6.8%
Hungary		0.1%	-3.9%	3.4%
Argentina		0.1%	-46.8%	-32.3%
Czech Republic		0.0%	-10.1%	-12.6%
Egypt		0.0%	7.4%	21.5%
Pakistan		0.0%	1.1%	-32.7%
Total Emerging Countries		26.0%	-4.2%	-2.0%
Total ACWIXUS Countries		100.0%	-1.8%	-1.2%

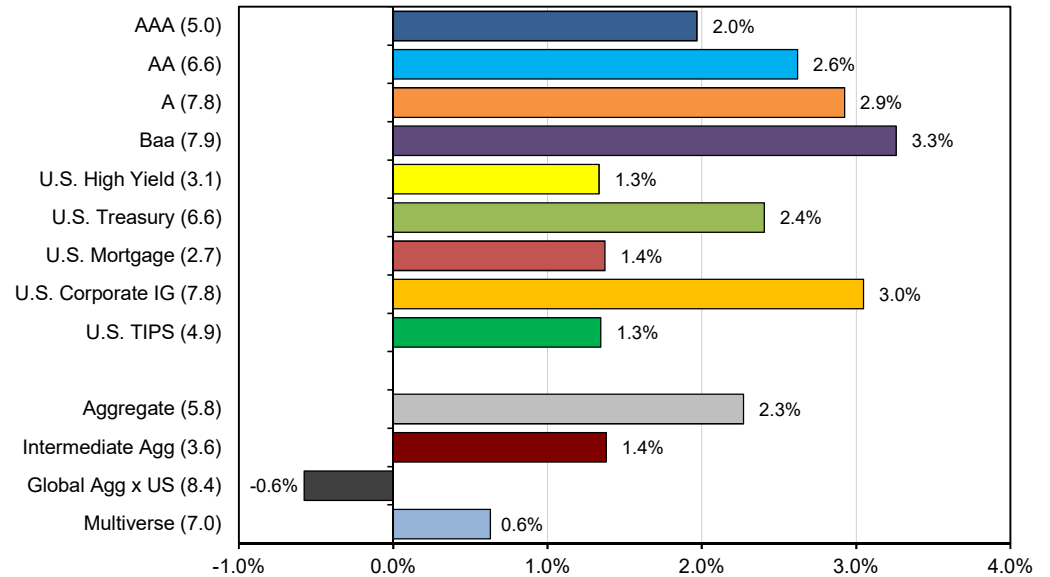
Source: Morningstar Direct, MSCI Global Index Monitor (Returns are Net in USD)

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.

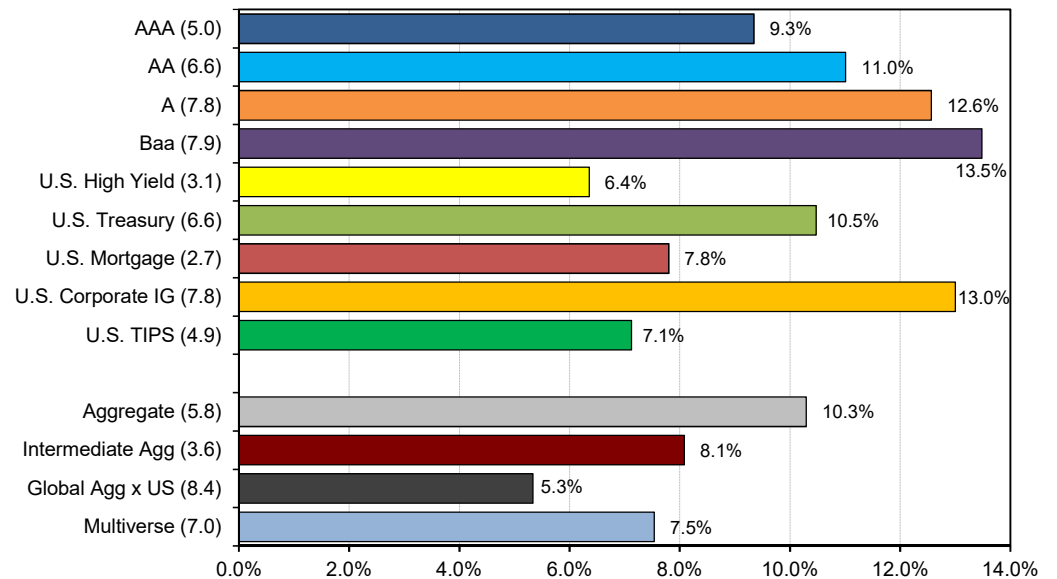


- Broad fixed income benchmarks continued their trend of 2019 gains during the 3rd quarter. Interest rates fell across the US Treasury Yield Curve through the quarter as the Fed continued to shift toward an easing of monetary policy in an attempt to combat slowing economic data. The Fed cut short-term interest rates twice during the period following their July and September meetings. In addition, it ended its balance sheet reduction plan in September which represents a further easing of monetary policy. After its September meeting, the Fed issued a statement commenting that future changes to monetary policy are not on a preset course and will be evaluated as the Fed receives new information on the state of the economy, but that Fed officials “will continue to monitor the implications of incoming information for the economic outlook and will act as appropriate to sustain the expansion.” The Fed response provided market support in a quarter where we saw the formal inversion of the yield curve. Treasury yields on 2-year issues briefly surpassed the yield on 10-year issues in August. This inversion of the yield curve has historically preceded a recession within the next 6-24 months. However, the magnitude of the inversion was mild and short in duration with rates on the 10-year Treasury rising above the yield of the 2-year by early September. The bellwether Bloomberg Barclays US Aggregate Index posted positive returns for both the 3rd quarter and the 1-year period, returning 2.3% and 10.3% respectively.
- Within investment grade credit, lower quality issues outperformed higher quality issues during the quarter. Lower quality issues benefitted from their higher durations as interest rates fell during the quarter. 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 3.3% for the quarter, while AAA was the worst performing, returning 2.0%. High yield issues returned 1.3% for the quarter as these issues did not commensurately benefit from the drop in interest rates due to their relatively low durations. Returns over the 1-year period show lower quality securities outperforming higher quality issues with Baa rated issues returning 13.5% versus a 9.3% return for AAA securities.
- 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 3rd quarter. Investment grade corporate credit returned 3.0%, as they benefitted from their higher sensitivity to interest rates, low credit spreads and high investor demand for yield. When viewed over the 1-year period, corporate credit outperformed both Treasuries and mortgage backed securities. Corporate issues returned 13.0% versus a 7.8% return for mortgages and 10.5% gain on Treasury securities.

Quarter Performance

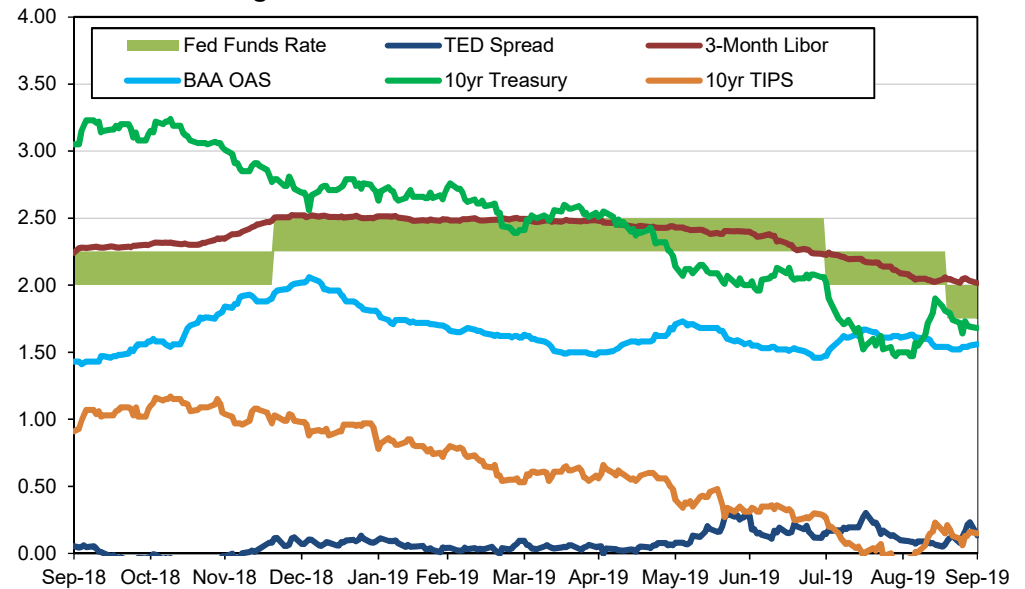


1-Year Performance

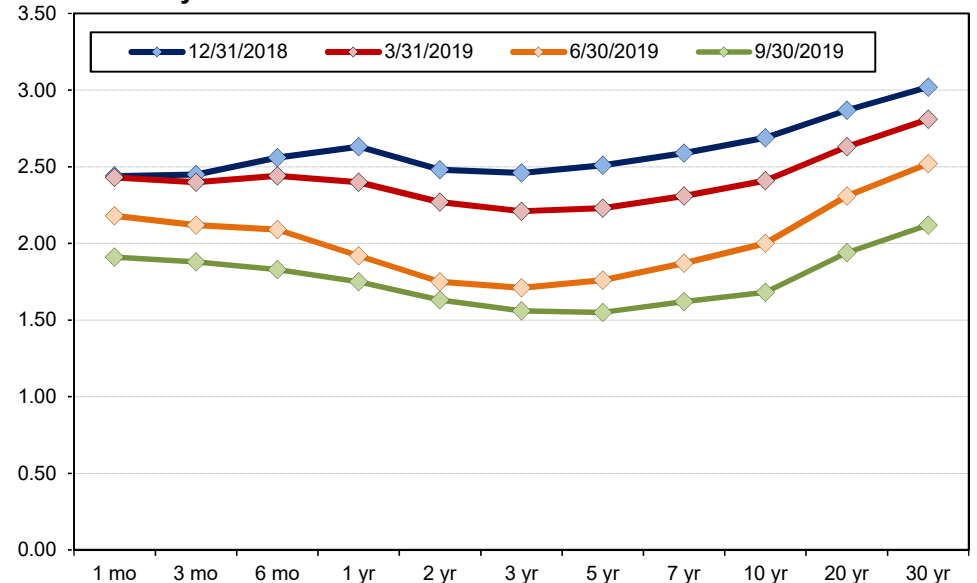


- Global fixed income returns underperformed their domestic counterparts during the 3rd quarter. These indices have lower, or in some cases (Germany, Japan), negative yields, but have higher durations. Given their higher durations, these issues would be expected to perform relatively well during periods of falling rates, however, the returns of these indices are also significantly influenced by fluctuations in their currency denomination relative to the USD. As mentioned, the USD appreciated against most other developed currencies during the quarter, acting as a headwind to global bond indices. The return on global bonds, as represented by the Bloomberg Barclays Global Aggregate ex US Index, was -0.6%. Global bonds also trailed over the 1-year period with the Global Aggregate ex US Index returning 5.3% versus a 10.3% return on the domestically focused Bloomberg 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 over the last year, the 10-year Treasury yield (green line) fell from high's greater than 3.0%, to yields below 1.5% before ending the quarter at 1.68%. 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 declined steadily, remaining somewhat range bound with increases in May and August. There was little change through the quarter with spreads tightening by about 1 basis point. Spread tightening is equivalent to an interest rate decrease on corporate bonds, which produces an additional tailwind for corporate bond index returns. The green band across the graph illustrates the decrease in the Federal Funds Rate due to the recent easing in US monetary policy. The rate cuts in July and September have pushed the Fed Funds Rate to 1-year lows.
- 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 flattening of the yield curve are clearly visible over the last quarter. As mentioned, the yield curve continues to invert as yields on shorter- and middle-term maturities fell less than interest rates at the long-end of the curve.

1-Year Trailing Market Rates



Treasury Yield Curve



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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