

Investment Performance Review  
Period Ending September 30, 2017

## Sunrise Police Officers Retirement System

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<b>Total Fund Compliance:</b>	<b>Yes</b>	<b>No</b>
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 8% target rate of return over the trailing three year period.		•
The total plan return equaled or exceeded the 8% target rate of return over the trailing five year period.	•	
<b>Equity Compliance:</b>		
<b>Ceredex Large Cap Value</b>	<b>Yes</b>	<b>No</b>
The return equaled or exceeded its benchmark over the trailing three and five year periods.		•
The 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.	•	
<b>GHA Large Cap Growth</b>	<b>Yes</b>	<b>No</b>
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.	•	
<b>Mutual of America</b>	<b>Yes</b>	<b>No</b>
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.	•	



<b>New Amsterdam SMID Equity</b>	<b>Yes</b>	<b>No</b>
The return equaled or exceeded its benchmark over the trailing three and five year periods. **	•	
The three 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.	•	

<b>Vanguard International Equity</b>	<b>Yes</b>	<b>No</b>
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.	•	

<b>JPM International Equity</b>	<b>Yes</b>	<b>No</b>
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:**

<b>GHA Fixed Income BCAB A+</b>	<b>Yes</b>	<b>No</b>
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.	•	

<b>GHA Fixed Income BCIGC</b>	<b>Yes</b>	<b>No</b>
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.	•	

\* Only 3 years available

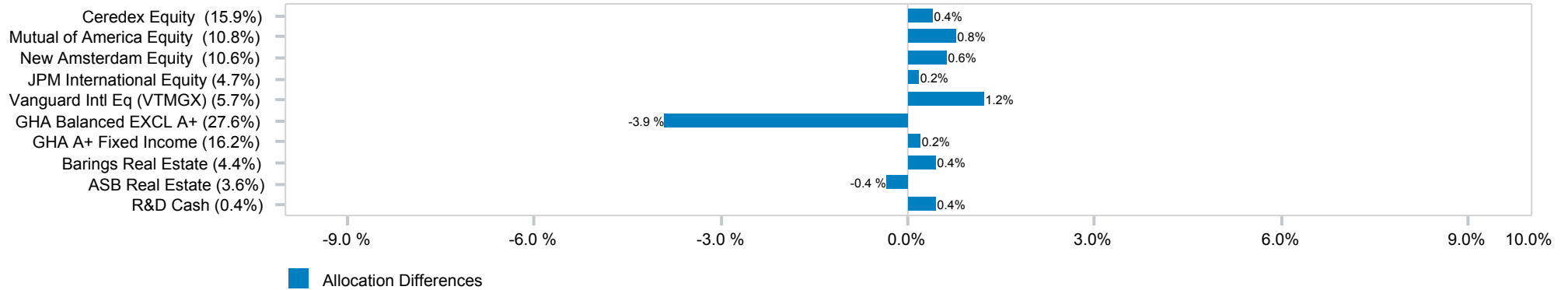
\*\* Since Inception

Net performance used when available

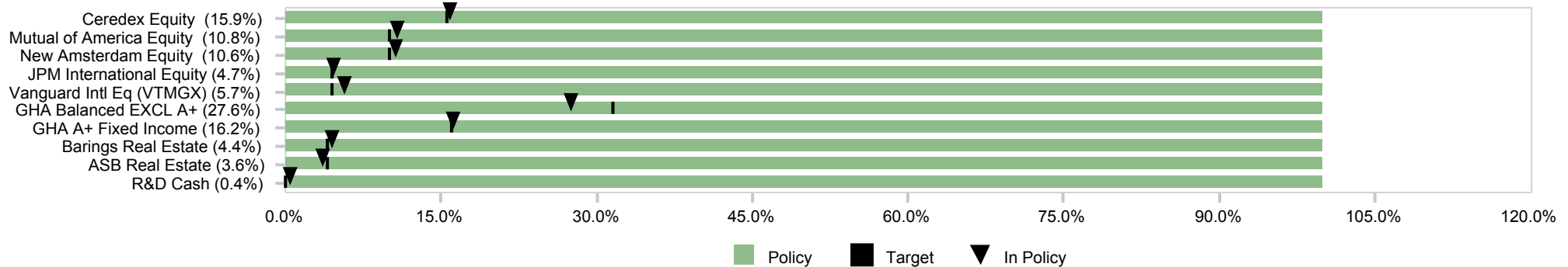


Asset Allocation Compliance

	Asset Allocation \$	Current Allocation (%)	Target Allocation (%)	Differences (%)	Target Rebal. (\$000)
Total Fund Composite	137,781,854	100.0	100.0	0.0	-
Ceredex Equity	21,900,955	15.9	15.5	0.4	-544,768
Mutual of America Equity	14,828,625	10.8	10.0	0.8	-1,050,440
New Amsterdam Equity	14,633,525	10.6	10.0	0.6	-855,340
JPM International Equity	6,454,384	4.7	4.5	0.2	-254,200
Vanguard Intl Eq (VTMGX)	7,866,640	5.7	4.5	1.2	-1,666,457
GHA Balanced EXCL A+	38,017,866	27.6	31.5	-3.9	5,383,418
GHA A+ Fixed Income	22,323,537	16.2	16.0	0.2	-278,440
Barings Real Estate	6,131,081	4.4	4.0	0.4	-619,807
ASB Real Estate	5,023,661	3.6	4.0	-0.4	487,613
R&D Cash	601,580	0.4	0.0	0.4	-601,580

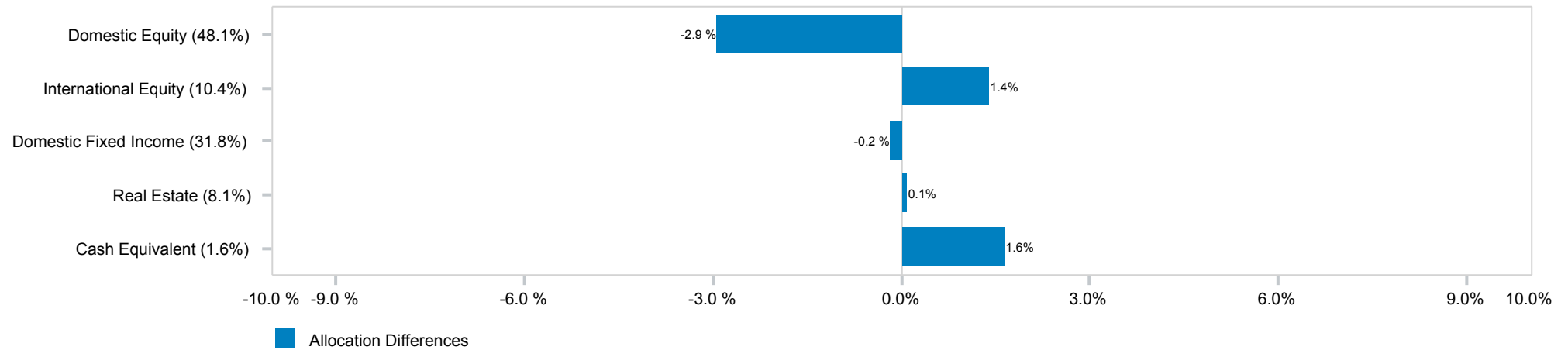


Executive Summary

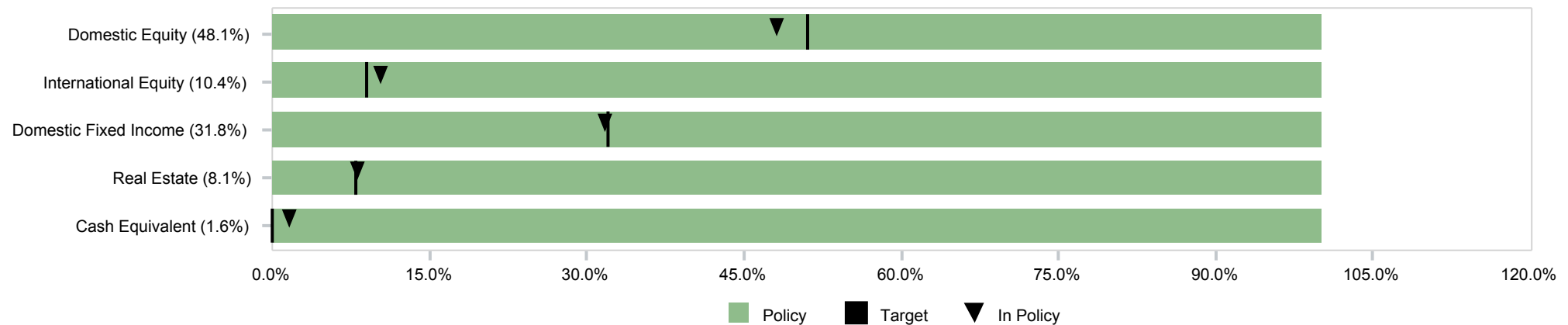


**Asset Allocation Compliance**

	Asset Allocation \$	Current Allocation (%)	Target Allocation (%)	Differences (%)	Target Rebal. (\$000)
Domestic Equity	66,229,307	48.1	51.0	-2.9	4,039,439
International Equity	14,321,024	10.4	9.0	1.4	-1,920,657
Domestic Fixed Income	43,819,739	31.8	32.0	-0.2	270,454
Real Estate	11,154,742	8.1	8.0	0.1	-132,194
Cash Equivalent	2,257,042	1.6	0.0	1.6	-2,257,042
Total Fund	137,781,854	100.0	100.0	0.0	-

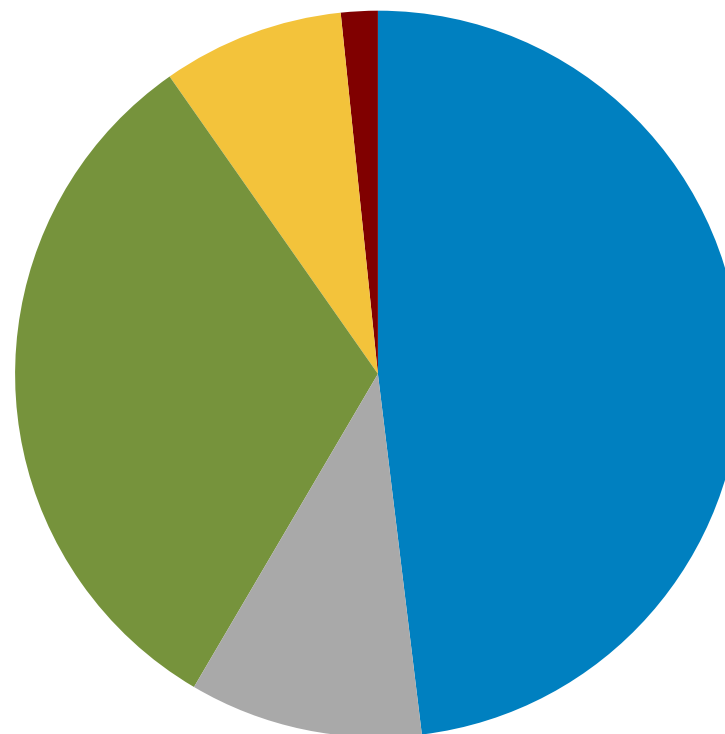
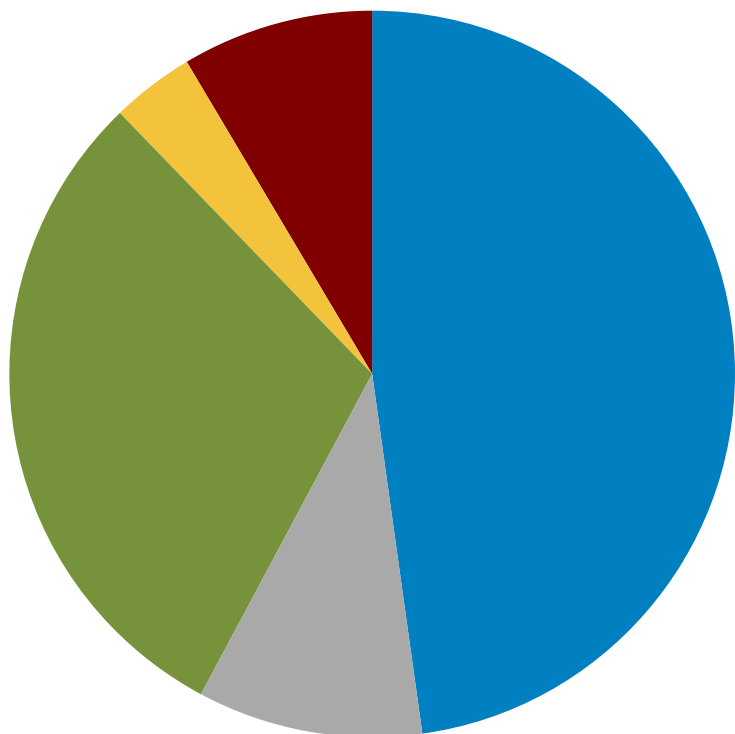


**Executive Summary**



Asset Allocation By Segment as of  
 June 30, 2017 : \$134,953,220

Asset Allocation By Segment as of  
 September 30, 2017 : \$137,781,854

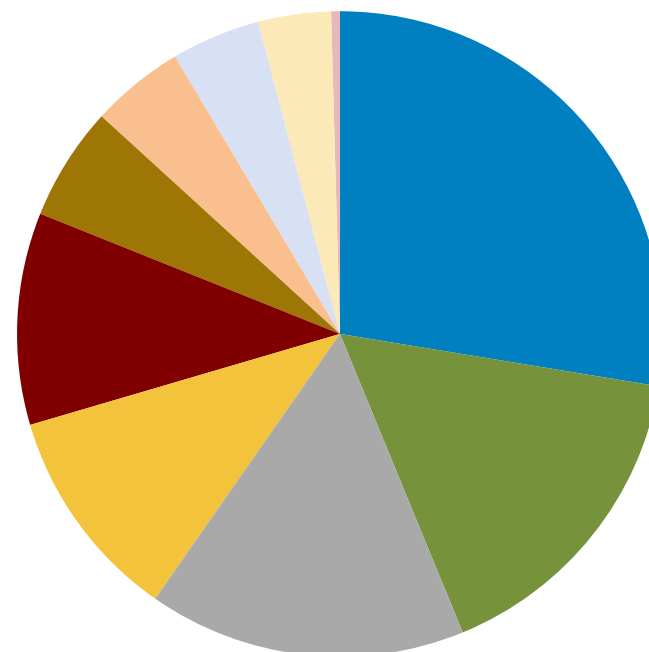
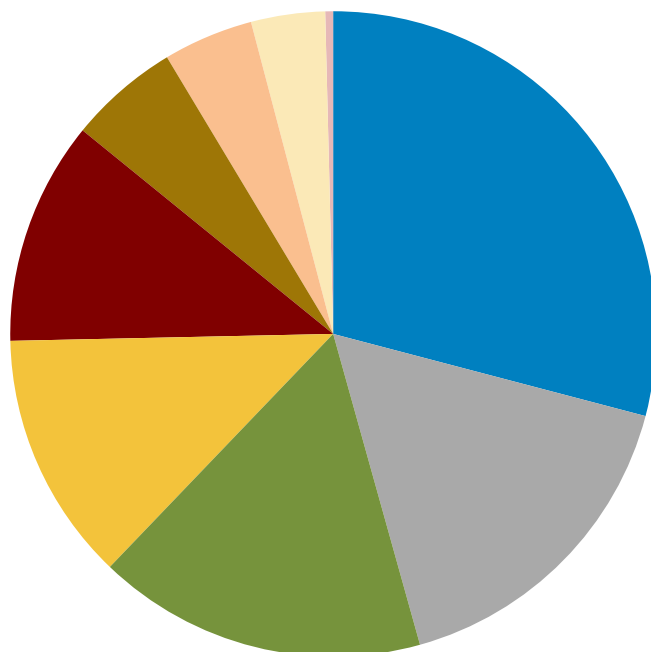


Allocation			Allocation		
Segments	Market Value	Allocation	Segments	Market Value	Allocation
■ Domestic Equity	64,497,092	47.8	■ Domestic Equity	66,229,307	48.1
■ International Equity	13,535,564	10.0	■ International Equity	14,321,024	10.4
■ Domestic Fixed Income	40,397,402	29.9	■ Domestic Fixed Income	43,819,739	31.8
■ Real Estate	5,000,000	3.7	■ Real Estate	11,154,742	8.1
■ Cash Equivalent	11,523,162	8.5	■ Cash Equivalent	2,257,042	1.6



Asset Allocation By Manager as of  
 June 30, 2017 : \$134,953,220

Asset Allocation By Manager as of  
 September 30, 2017 : \$137,781,854



Allocation			Allocation		
	Market Value	Allocation		Market Value	Allocation
■ GHA Balanced EXCL A+	39,266,243	29.1	■ GHA Balanced EXCL A+	38,017,866	27.6
■ Ceredex Equity	22,371,062	16.6	■ GHA A+ Fixed Income	22,323,537	16.2
■ GHA A+ Fixed Income	22,245,559	16.5	■ Ceredex Equity	21,900,955	15.9
■ Mutual of America Equity	16,871,975	12.5	■ Mutual of America Equity	14,828,625	10.8
■ New Amsterdam Equity	15,124,626	11.2	■ New Amsterdam Equity	14,633,525	10.6
■ Vanguard Intl Eq (VTMGX)	7,457,224	5.5	■ Vanguard Intl Eq (VTMGX)	7,866,640	5.7
■ JPM International Equity	6,078,340	4.5	■ JPM International Equity	6,454,384	4.7
■ ASB Real Estate	5,000,000	3.7	■ Barings Real Estate	6,131,081	4.4
■ R&D Cash	538,191	0.4	■ ASB Real Estate	5,023,661	3.6
■ Barings Real Estate	-	0.0	■ R&D Cash	601,580	0.4





## Comparative Performance Trailing Returns

	QTR	YTD	FYTD	1 YR	3 YR	5 YR	Inception	Inception Date
<b>Total Fund Composite (Gross)</b>	<b>3.00 (85)</b>	<b>9.00 (89)</b>	<b>11.66 (64)</b>	<b>11.66 (64)</b>	<b>7.16 (36)</b>	<b>8.88 (40)</b>	<b>6.31 (66)</b>	<b>01/01/1998</b>
Total Fund Policy Index	3.06 (81)	9.28 (87)	10.90 (78)	10.90 (78)	7.06 (41)	8.79 (45)	6.38 (63)	
Difference	-0.06	-0.28	0.76	0.76	0.10	0.09	-0.07	
All Public Plans-Total Fund Median	3.44	11.30	12.17	12.17	6.82	8.64	6.59	
<b>Total Fund Composite (Net)</b>	<b>2.90</b>	<b>8.72</b>	<b>11.28</b>	<b>11.28</b>	<b>6.81</b>	<b>8.47</b>	<b>5.96</b>	<b>01/01/1998</b>
Total Fund Policy Index	3.06	9.28	10.90	10.90	7.06	8.79	6.38	
Difference	-0.16	-0.56	0.38	0.38	-0.25	-0.32	-0.42	
<b>Total Equity Composite (Gross)</b>	<b>4.74</b>	<b>13.33</b>	<b>19.33</b>	<b>19.33</b>	<b>10.20</b>	<b>13.20</b>	<b>6.07</b>	<b>01/01/1998</b>
Total Equity Policy Index	4.49	13.80	18.53	18.53	10.02	13.48	6.87	
Difference	0.25	-0.47	0.80	0.80	0.18	-0.28	-0.80	
<b>Total Domestic Equity</b>								
<b>Ceredex Equity (Gross)</b>	<b>3.82 (60)</b>	<b>10.24 (54)</b>	<b>17.71 (55)</b>	<b>17.71 (55)</b>	<b>9.10 (51)</b>	<b>14.02 (45)</b>	<b>14.66 (48)</b>	<b>01/01/2012</b>
Russell 1000 Value Index	3.11 (80)	7.92 (84)	15.12 (77)	15.12 (77)	8.53 (63)	13.20 (64)	14.25 (58)	
Difference	0.71	2.32	2.59	2.59	0.57	0.82	0.41	
IM U.S. Large Cap Value Equity (SA+CF) Median	4.10	10.51	17.99	17.99	9.13	13.82	14.57	
<b>Ceredex Equity (Net)</b>	<b>3.68</b>	<b>9.79</b>	<b>17.06</b>	<b>17.06</b>	<b>8.49</b>	<b>13.38</b>	<b>14.02</b>	<b>01/01/2012</b>
Russell 1000 Value Index	3.11	7.92	15.12	15.12	8.53	13.20	14.25	
Difference	0.57	1.87	1.94	1.94	-0.04	0.18	-0.23	
<b>GHA LCG (Gross)</b>	<b>5.83 (36)</b>	<b>20.41 (46)</b>	<b>21.48 (41)</b>	<b>21.48 (41)</b>	<b>11.93 (46)</b>	<b>13.16 (81)</b>	<b>7.41 (77)</b>	<b>01/01/1998</b>
Russell 1000 Growth Index	5.90 (35)	20.72 (43)	21.94 (36)	21.94 (36)	12.69 (31)	15.26 (40)	6.55 (94)	
Difference	-0.07	-0.31	-0.46	-0.46	-0.76	-2.10	0.86	
IM U.S. Large Cap Growth Equity (SA+CF) Median	5.41	19.92	20.80	20.80	11.75	14.81	8.06	
<b>Mutual of America Equity (Gross)</b>	<b>3.20 (66)</b>	<b>9.22 (68)</b>	<b>17.31 (41)</b>	<b>17.31 (41)</b>	<b>11.09 (13)</b>	<b>14.31 (20)</b>	<b>10.76 (10)</b>	<b>04/01/2008</b>
S&P MidCap 400 Index	3.22 (66)	9.40 (66)	17.52 (39)	17.52 (39)	11.18 (13)	14.43 (18)	10.89 (8)	
Difference	-0.02	-0.18	-0.21	-0.21	-0.09	-0.12	-0.13	
IM U.S. Mid Cap Equity (MF) Median	3.80	12.40	16.44	16.44	8.77	12.80	8.91	
<b>Mutual of America Equity (Net)</b>	<b>3.18</b>	<b>9.16</b>	<b>17.23</b>	<b>17.23</b>	<b>11.02</b>	<b>14.24</b>	<b>10.67</b>	<b>04/01/2008</b>
S&P MidCap 400 Index	3.22	9.40	17.52	17.52	11.18	14.43	10.89	
Difference	-0.04	-0.24	-0.29	-0.29	-0.16	-0.19	-0.22	

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



Comparative Performance

Total Fund

As of September 30, 2017

	QTR	YTD	FYTD	1 YR	3 YR	5 YR	Inception	Inception Date
New Amsterdam Equity (Gross)	5.24 (52)	7.22 (50)	20.56 (50)	20.56 (50)	N/A	N/A	10.37 (45)	01/01/2015
Russell 2500 Index	4.74 (60)	11.00 (21)	17.79 (77)	17.79 (77)	10.60 (72)	13.86 (66)	9.00 (71)	
Difference	0.50	-3.78	2.77	2.77	N/A	N/A	1.37	
IM U.S. Small Cap Value Equity (SA+CF) Median	5.28	7.22	20.48	20.48	12.08	14.82	10.10	
New Amsterdam Equity (Net)	5.10	6.84	19.99	19.99	N/A	N/A	9.89	01/01/2015
Russell 2500 Index	4.74	11.00	17.79	17.79	10.60	13.86	9.00	
Difference	0.36	-4.16	2.20	2.20	N/A	N/A	0.89	
<b>Total International Equity</b>								
Vanguard Intl Eq (VTMGX) (Net)	5.49 (65)	21.01 (66)	19.25 (52)	19.25 (52)	5.86 (43)	N/A	7.82 (35)	07/01/2013
MSCI EAFE Index	5.47 (65)	20.47 (71)	19.65 (48)	19.65 (48)	5.53 (48)	8.87 (29)	7.75 (36)	
Difference	0.02	0.54	-0.40	-0.40	0.33	N/A	0.07	
IM International Equity (MF) Median	6.22	23.11	19.33	19.33	5.37	7.50	7.01	
JPM International Equity (Net)	6.19 (54)	23.54 (54)	18.60 (69)	18.60 (69)	N/A	N/A	14.45 (64)	10/01/2015
MSCI EAFE Index	5.47 (67)	20.47 (74)	19.65 (60)	19.65 (60)	5.53 (69)	8.87 (54)	13.18 (74)	
Difference	0.72	3.07	-1.05	-1.05	N/A	N/A	1.27	
IM International Equity (SA+CF) Median	6.38	23.97	20.94	20.94	6.85	9.18	16.01	
<b>Total Fixed Income Composite (Gross)</b>								
Total Fixed Income Policy Index	0.66	2.51	-0.09	-0.09	2.31	1.72	4.48	
Difference	-0.24	0.00	0.45	0.45	0.56	1.06	1.28	
GHA A+ Fixed Income (Gross)	0.43 (100)	2.90 (93)	0.23 (71)	0.23 (71)	3.07 (48)	2.97 (17)	5.87 (2)	01/01/2007
Blmbg. Barc. U.S. Aggregate: A+	0.72 (93)	2.67 (98)	-0.42 (100)	-0.42 (100)	2.49 (98)	1.82 (99)	4.10 (96)	
Difference	-0.29	0.23	0.65	0.65	0.58	1.15	1.77	
IM U.S. Broad Market Core Fixed Income (SA+CF) Median	0.92	3.46	0.60	0.60	3.01	2.46	4.82	
GHA A+ Fixed Income (Net)	0.37	2.71	-0.02	-0.02	2.82	2.71	5.61	01/01/2007
Blmbg. Barc. U.S. Aggregate: A+	0.72	2.67	-0.42	-0.42	2.49	1.82	4.10	
Difference	-0.35	0.04	0.40	0.40	0.33	0.89	1.51	
GHA EXCL A+ Fixed Income (Gross)	0.42 (98)	2.07 (89)	0.52 (68)	0.52 (68)	2.65 (32)	2.53 (18)	5.52 (9)	01/01/1998
Bloomberg Barclays Intermediate US Govt/Credit Idx	0.60 (83)	2.34 (75)	0.23 (88)	0.23 (88)	2.13 (80)	1.61 (85)	4.60 (89)	
Difference	-0.18	-0.27	0.29	0.29	0.52	0.92	0.92	
IM U.S. Intermediate Duration (SA+CF) Median	0.73	2.57	0.70	0.70	2.42	1.96	4.94	

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



**Comparative Performance  
Total Fund**

As of September 30, 2017

	<b>QTR</b>	<b>YTD</b>	<b>FYTD</b>	<b>1 YR</b>	<b>3 YR</b>	<b>5 YR</b>	<b>Inception</b>	<b>Inception Date</b>
<b>Total Real Estate (Gross)</b>	<b>1.70 (63)</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>1.70 (N/A)</b>	<b>06/01/2017</b>
NCREIF Fund Index-Open End Diversified Core (EW)	1.88 (48)	5.52 (62)	7.80 (66)	7.80 (66)	11.01 (59)	11.57 (69)	3.63 (N/A)	
Difference	-0.18	N/A	N/A	N/A	N/A	N/A	-1.93	
IM U.S. Open End Private Real Estate (SA+CF) Median	1.75	5.89	8.30	8.30	11.18	11.89	N/A	
<b>Barings Real Estate (Gross)</b>	<b>2.46 (19)</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>2.46 (19)</b>	<b>07/01/2017</b>
NCREIF Fund Index-Open End Diversified Core (EW)	1.88 (48)	5.52 (62)	7.80 (66)	7.80 (66)	11.01 (59)	11.57 (69)	1.88 (48)	
Difference	0.58	N/A	N/A	N/A	N/A	N/A	0.58	
IM U.S. Open End Private Real Estate (SA+CF) Median	1.75	5.89	8.30	8.30	11.18	11.89	1.75	
<b>Barings Real Estate (Net)</b>	<b>2.18</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>2.18</b>	<b>07/01/2017</b>
NCREIF Fund Index-Open End Diversified Core (EW)	1.88	5.52	7.80	7.80	11.01	11.57	1.88	
Difference	0.30	N/A	N/A	N/A	N/A	N/A	0.30	
<b>ASB Real Estate (Gross)</b>	<b>0.79 (96)</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>0.79 (N/A)</b>	<b>06/01/2017</b>
NCREIF Fund Index-Open End Diversified Core (EW)	1.88 (48)	5.52 (62)	7.80 (66)	7.80 (66)	11.01 (59)	11.57 (69)	3.63 (N/A)	
Difference	-1.09	N/A	N/A	N/A	N/A	N/A	-2.84	
IM U.S. Open End Private Real Estate (SA+CF) Median	1.75	5.89	8.30	8.30	11.18	11.89	N/A	
<b>ASB Real Estate (Net)</b>	<b>0.47</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>0.47</b>	<b>06/01/2017</b>
NCREIF Fund Index-Open End Diversified Core (EW)	1.88	5.52	7.80	7.80	11.01	11.57	3.63	
Difference	-1.41	N/A	N/A	N/A	N/A	N/A	-3.16	

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



## Comparative Performance Fiscal Year to Date

	FYTD	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	Oct-2009 To Sep-2010	Oct-2008 To Sep-2009
<b>Total Fund Composite (Gross)</b>	<b>11.66 (64)</b>	<b>9.56 (54)</b>	<b>0.60 (24)</b>	<b>9.19 (72)</b>	<b>13.87 (26)</b>	<b>18.40 (39)</b>	<b>1.31 (26)</b>	<b>9.86 (52)</b>	<b>1.37 (53)</b>
Total Fund Policy Index	10.90 (78)	10.01 (39)	0.59 (24)	9.47 (65)	13.44 (35)	18.12 (46)	1.19 (27)	11.64 (14)	0.77 (63)
Difference	0.76	-0.45	0.01	-0.28	0.43	0.28	0.12	-1.78	0.60
All Public Plans-Total Fund Median	12.17	9.67	-0.50	10.17	12.50	17.98	0.26	9.93	1.59
<b>Total Fund Composite (Net)</b>	<b>11.28</b>	<b>9.25</b>	<b>0.22</b>	<b>8.71</b>	<b>13.36</b>	<b>17.84</b>	<b>0.85</b>	<b>9.28</b>	<b>0.85</b>
Total Fund Policy Index	10.90	10.01	0.59	9.47	13.44	18.12	1.19	11.64	0.77
Difference	0.38	-0.76	-0.37	-0.76	-0.08	-0.28	-0.34	-2.36	0.08
<b>Total Equity Composite (Gross)</b>	<b>19.33</b>	<b>13.45</b>	<b>-1.15</b>	<b>12.14</b>	<b>23.86</b>	<b>25.54</b>	<b>-0.21</b>	<b>11.03</b>	<b>-8.67</b>
Total Equity Policy Index	18.53	13.79	-1.26	13.94	24.01	27.57	-1.42	13.35	-6.67
Difference	0.80	-0.34	0.11	-1.80	-0.15	-2.03	1.21	-2.32	-2.00
<b>Total Domestic Equity</b>									
Ceredex Equity (Gross)	17.71 (55)	16.57 (23)	-5.35 (71)	17.16 (65)	26.65 (26)	N/A	N/A	N/A	N/A
Russell 1000 Value Index	15.12 (77)	16.19 (26)	-4.42 (65)	18.89 (42)	22.30 (61)	30.92 (26)	-1.89 (62)	8.90 (55)	-10.62 (84)
Difference	2.59	0.38	-0.93	-1.73	4.35	N/A	N/A	N/A	N/A
IM U.S. Large Cap Value Equity (SA+CF) Median	17.99	13.19	-3.29	18.35	23.76	28.29	-0.99	9.29	-5.91
Ceredex Equity (Net)	17.06	15.91	-5.89	16.50	25.93	N/A	N/A	N/A	N/A
Russell 1000 Value Index	15.12	16.19	-4.42	18.89	22.30	30.92	-1.89	8.90	-10.62
Difference	1.94	-0.28	-1.47	-2.39	3.63	N/A	N/A	N/A	N/A
GHA LCG (Gross)	21.48 (41)	13.71 (23)	1.52 (72)	17.32 (59)	12.80 (99)	27.88 (49)	3.11 (35)	12.33 (38)	-1.97 (38)
Russell 1000 Growth Index	21.94 (36)	13.76 (22)	3.17 (55)	19.15 (39)	19.27 (64)	29.19 (38)	3.78 (30)	12.65 (35)	-1.85 (37)
Difference	-0.46	-0.05	-1.65	-1.83	-6.47	-1.31	-0.67	-0.32	-0.12
IM U.S. Large Cap Growth Equity (SA+CF) Median	20.80	11.64	3.60	18.11	20.26	27.64	1.37	11.27	-3.06
Mutual of America Equity (Gross)	17.31 (41)	15.25 (15)	1.41 (34)	11.52 (51)	27.64 (42)	28.61 (27)	-1.27 (38)	17.60 (25)	-4.10 (52)
S&P MidCap 400 Index	17.52 (39)	15.33 (14)	1.40 (34)	11.82 (48)	27.68 (41)	28.54 (27)	-1.28 (38)	17.78 (24)	-3.11 (42)
Difference	-0.21	-0.08	0.01	-0.30	-0.04	0.07	0.01	-0.18	-0.99
IM U.S. Mid Cap Equity (MF) Median	16.44	10.49	-0.44	11.58	27.05	25.52	-2.55	15.27	-3.93
Mutual of America Equity (Net)	17.23	15.17	1.35	11.48	27.55	28.54	-1.32	17.36	-4.18
S&P MidCap 400 Index	17.52	15.33	1.40	11.82	27.68	28.54	-1.28	17.78	-3.11
Difference	-0.29	-0.16	-0.05	-0.34	-0.13	0.00	-0.04	-0.42	-1.07

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



Comparative Performance

Total Fund

As of September 30, 2017

	FYTD	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	Oct-2009 To Sep-2010	Oct-2008 To Sep-2009
New Amsterdam Equity (Gross)	20.56 (50)	8.62 (94)	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Russell 2500 Index	17.79 (77)	14.44 (61)	0.38 (54)	8.97 (32)	29.79 (64)	30.93 (52)	-2.22 (42)	15.92 (40)	-5.68 (56)
Difference	2.77	-5.82	N/A	N/A	N/A	N/A	N/A	N/A	N/A
IM U.S. Small Cap Value Equity (SA+CF) Median	20.48	15.68	0.72	7.04	30.97	31.08	-3.02	14.98	-4.27
New Amsterdam Equity (Net)	19.99	8.11	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Russell 2500 Index	17.79	14.44	0.38	8.97	29.79	30.93	-2.22	15.92	-5.68
Difference	2.20	-6.33	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<b>Total International Equity</b>									
Vanguard Intl Eq (VTMGX) (Net)	19.25 (52)	8.03 (58)	-7.90 (43)	4.01 (53)	N/A	N/A	N/A	N/A	N/A
MSCI EAFE Index	19.65 (48)	7.06 (64)	-8.27 (45)	4.70 (44)	24.29 (19)	14.33 (66)	-8.94 (24)	3.71 (74)	3.80 (51)
Difference	-0.40	0.97	0.37	-0.69	N/A	N/A	N/A	N/A	N/A
IM International Equity (MF) Median	19.33	9.22	-9.18	4.24	17.79	16.17	-12.13	8.59	4.01
JPM International Equity (Net)	18.60 (69)	10.45 (56)	N/A	N/A	N/A	N/A	N/A	N/A	N/A
MSCI EAFE Index	19.65 (60)	7.06 (76)	-8.27 (50)	4.70 (62)	24.29 (33)	14.33 (72)	-8.94 (45)	3.71 (80)	3.80 (65)
Difference	-1.05	3.39	N/A	N/A	N/A	N/A	N/A	N/A	N/A
IM International Equity (SA+CF) Median	20.94	11.48	-8.29	5.79	20.15	17.31	-9.59	9.60	7.04
<b>Total Fixed Income Composite (Gross)</b>									
Total Fixed Income Policy Index	-0.09	4.01	3.06	2.79	-1.09	4.40	4.35	7.68	9.47
Difference	0.45	0.78	0.45	2.53	1.10	6.07	-1.14	1.70	5.40
GHA A+ Fixed Income (Gross)	0.23 (71)	5.53 (62)	3.53 (11)	5.87 (10)	-0.17 (13)	10.68 (2)	4.02 (92)	9.90 (32)	15.08 (14)
Blmbg. Barc. U.S. Aggregate: A+	-0.42 (100)	4.50 (96)	3.44 (17)	3.39 (95)	-1.68 (79)	4.40 (98)	5.30 (47)	7.59 (95)	9.74 (89)
Difference	0.65	1.03	0.09	2.48	1.51	6.28	-1.28	2.31	5.34
IM U.S. Broad Market Core Fixed Income (SA+CF) Median	0.60	5.66	3.02	4.50	-1.27	6.61	5.26	9.26	12.28
GHA A+ Fixed Income (Net)	-0.02	5.27	3.27	5.62	-0.43	10.42	3.77	9.62	14.80
Blmbg. Barc. U.S. Aggregate: A+	-0.42	4.50	3.44	3.39	-1.68	4.40	5.30	7.59	9.74
Difference	0.40	0.77	-0.17	2.23	1.25	6.02	-1.53	2.03	5.06
GHA EXCL A+ Fixed Income (Gross)	0.52 (68)	4.03 (42)	3.45 (8)	4.56 (11)	0.18 (27)	9.98 (3)	2.13 (96)	8.69 (33)	14.55 (12)
Bloomberg Barclays Intermediate US Govt/Credit Idx	0.23 (88)	3.52 (76)	2.68 (52)	2.20 (84)	-0.50 (66)	4.40 (81)	3.40 (61)	7.77 (68)	10.01 (78)
Difference	0.29	0.51	0.77	2.36	0.68	5.58	-1.27	0.92	4.54
IM U.S. Intermediate Duration (SA+CF) Median	0.70	3.91	2.70	2.89	-0.27	5.56	3.61	8.26	11.51

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



**Comparative Performance  
Total Fund**

As of September 30, 2017

	FYTD	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	Oct-2009 To Sep-2010	Oct-2008 To Sep-2009
<b>Total Real Estate (Gross)</b>	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
NCREIF Fund Index-Open End Diversified Core (EW)	7.80 (66)	10.62 (69)	14.71 (62)	12.39 (68)	12.47 (67)	11.77 (66)	18.03 (41)	6.14 (52)	-36.09 (54)
Difference	N/A	N/A	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	8.30	11.32	15.45	12.78	13.18	12.90	16.62	6.39	-34.80
<b>Barings Real Estate (Gross)</b>	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
NCREIF Fund Index-Open End Diversified Core (EW)	7.80 (66)	10.62 (69)	14.71 (62)	12.39 (68)	12.47 (67)	11.77 (66)	18.03 (41)	6.14 (52)	-36.09 (54)
Difference	N/A	N/A	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	8.30	11.32	15.45	12.78	13.18	12.90	16.62	6.39	-34.80
<b>Barings Real Estate (Net)</b>	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
NCREIF Fund Index-Open End Diversified Core (EW)	7.80	10.62	14.71	12.39	12.47	11.77	18.03	6.14	-36.09
Difference	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<b>ASB Real Estate (Gross)</b>	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
NCREIF Fund Index-Open End Diversified Core (EW)	7.80 (66)	10.62 (69)	14.71 (62)	12.39 (68)	12.47 (67)	11.77 (66)	18.03 (41)	6.14 (52)	-36.09 (54)
Difference	N/A	N/A	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	8.30	11.32	15.45	12.78	13.18	12.90	16.62	6.39	-34.80
<b>ASB Real Estate (Net)</b>	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
NCREIF Fund Index-Open End Diversified Core (EW)	7.80	10.62	14.71	12.39	12.47	11.77	18.03	6.14	-36.09
Difference	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

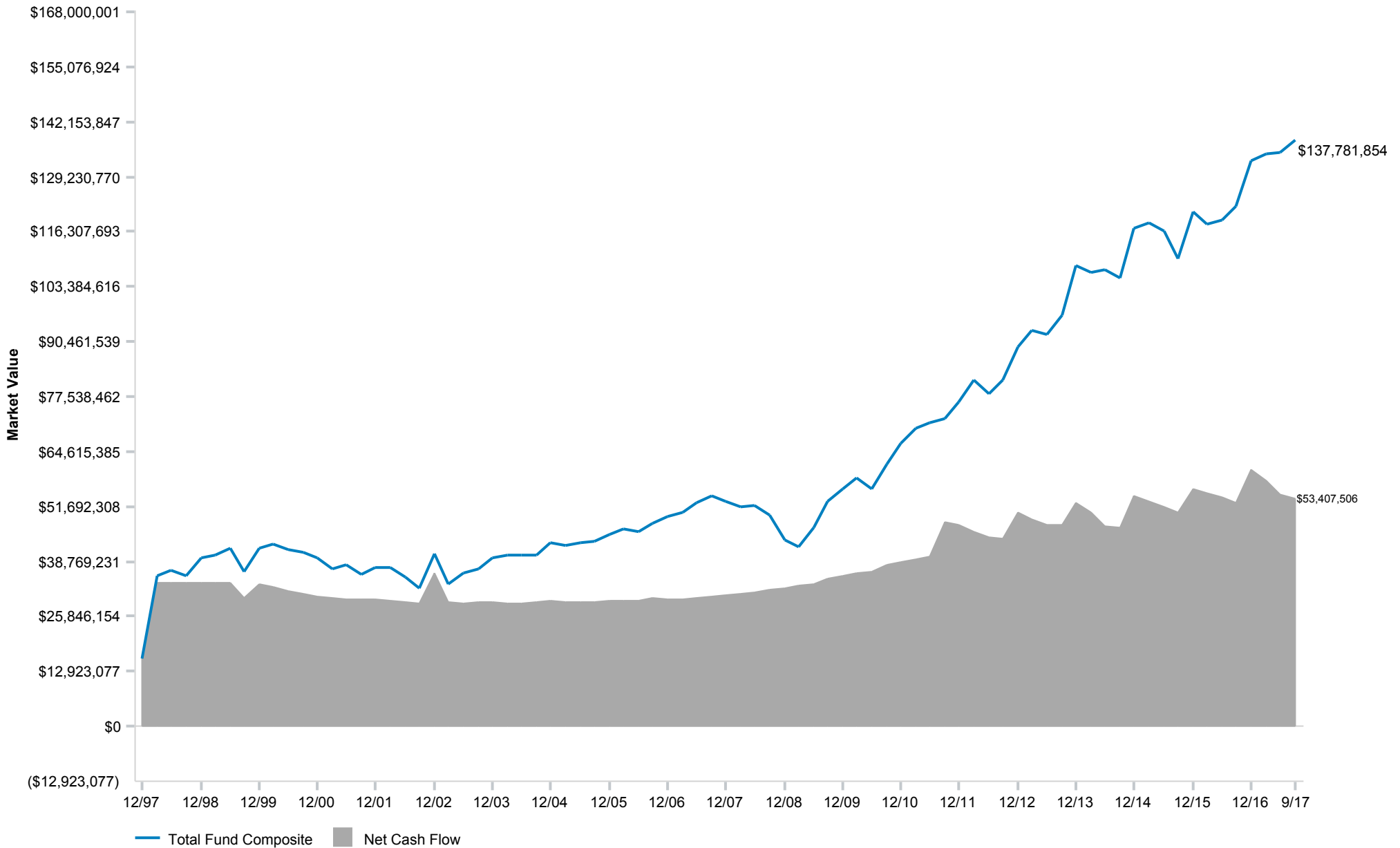
Returns for periods greater than one year are annualized. Returns are expressed as percentages.



<b>Financial Reconciliation Quarter to Date</b>					
	<b>Market Value 07/01/2017</b>	<b>Apprec./ Deprec.</b>	<b>Income</b>	<b>Management Fees</b>	<b>Market Value 09/30/2017</b>
Ceredex Equity	22,371,062	696,689	112,901	-30,301	21,900,955
Mutual of America Equity	16,871,975	406,868	55,362	-3,113	14,828,625
New Amsterdam Equity	15,124,626	684,002	45,947	-18,838	14,633,525
Vanguard Intl Eq (VTMGX)	7,457,224	376,798	32,618	-	7,866,640
JPM International Equity	6,078,340	376,043	-	-	6,454,384
GHA A+ Fixed Income	22,245,559	-46,688	141,839	-13,895	22,323,537
GHA Balanced EXCL A+	39,266,243	773,460	195,313	-40,170	38,017,866
Barings Real Estate	-	89,423	58,159	-16,500	6,131,081
ASB Real Estate	5,000,000	-7,561	46,946	-15,723	5,023,661
R&D Cash	538,191	-	1,012	-	601,580
<b>Total Fund Composite</b>	<b>134,953,220</b>	<b>3,349,033</b>	<b>690,097</b>	<b>-138,540</b>	<b>137,781,854</b>



**Schedule of Investable Assets**





**Schedule of Investable Assets**  
**Total Fund**  
Since Inception Ending September 30, 2017

**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, 2017**

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
	15,998,300	140,125,185	102,715,979	37,409,206	84,374,348	137,781,854	6.31



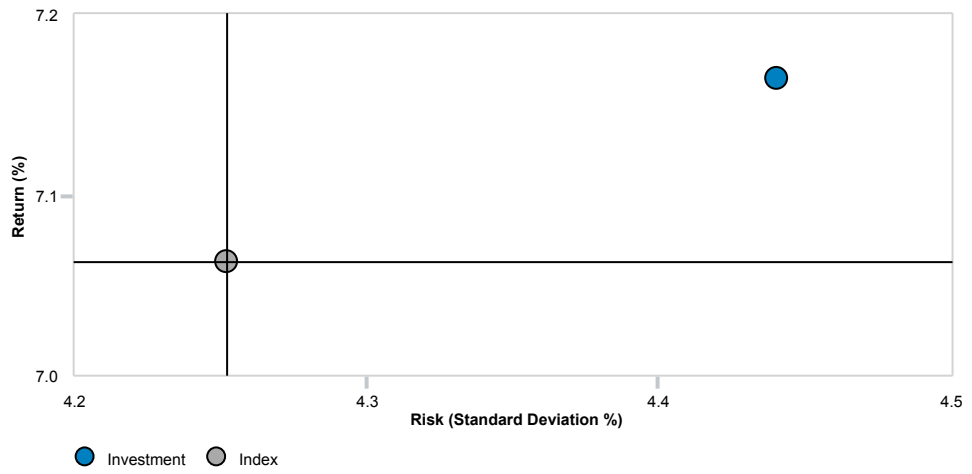
**Historical Statistics 3 Years**

	Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters
Investment	7.16	4.44	1.55	102.45	10	106.50	2
Index	7.06	4.25	1.59	100.00	10	100.00	2

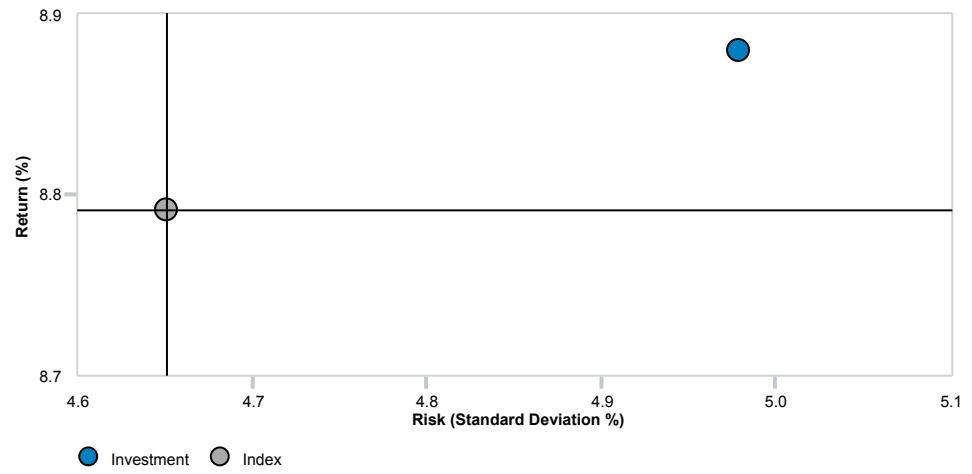
**Historical Statistics 5 Years**

	Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters
Investment	8.88	4.98	1.72	102.10	17	108.87	3
Index	8.79	4.65	1.82	100.00	17	100.00	3

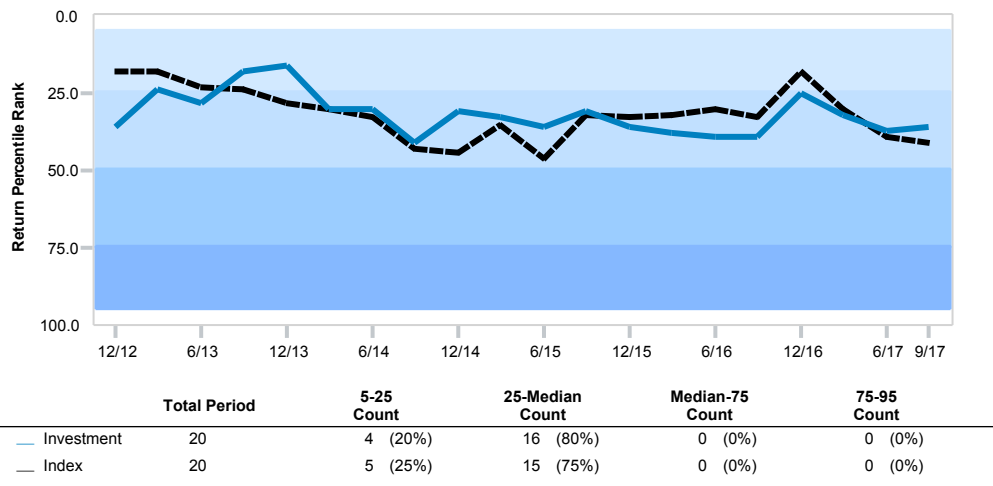
**Risk and Return 3 Years**



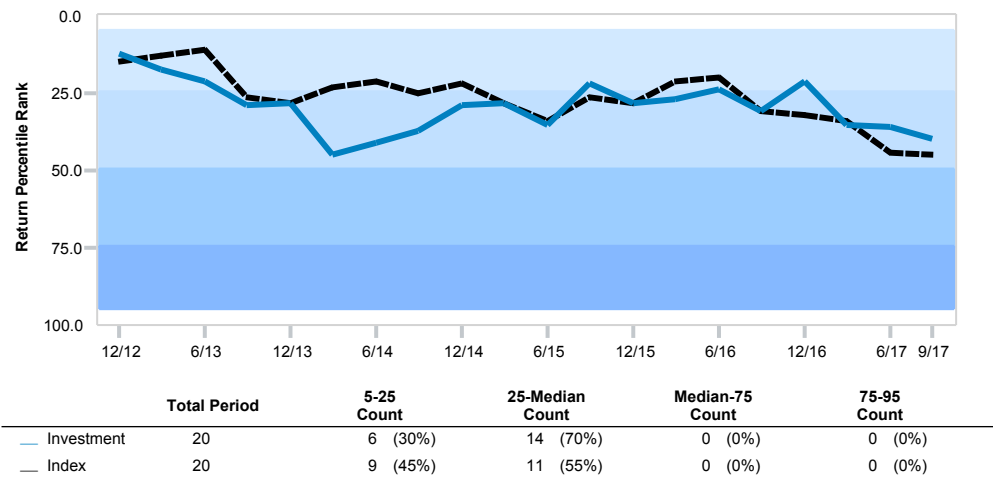
**Risk and Return 5 Years**



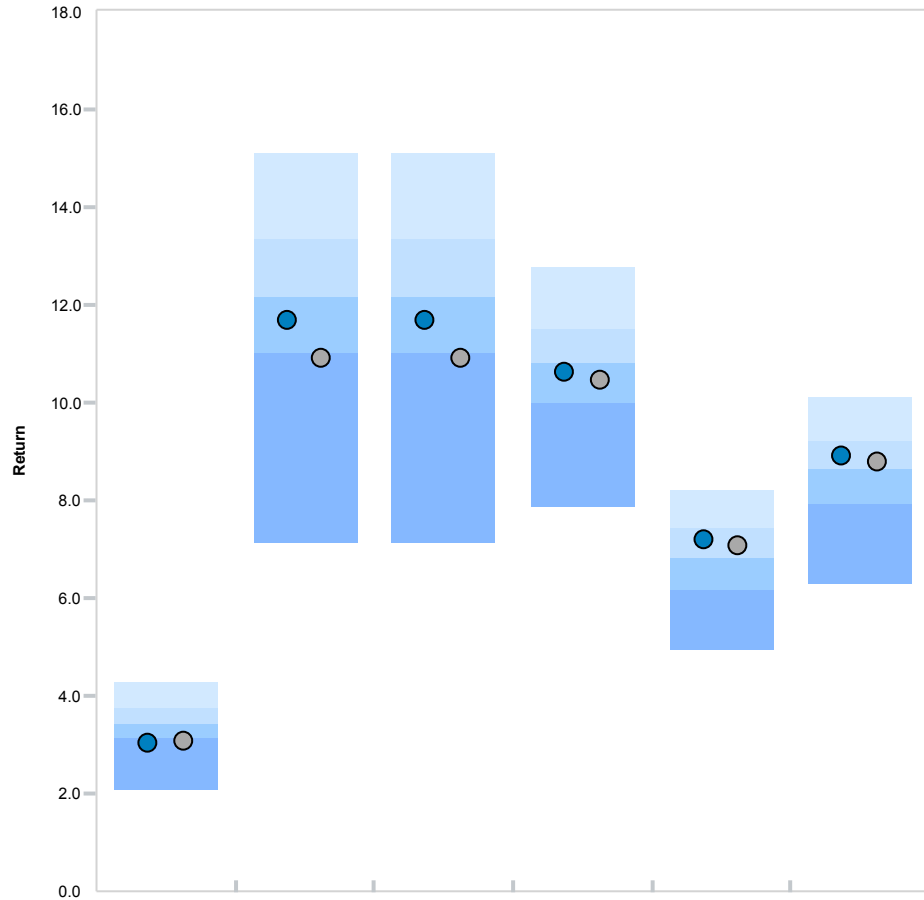
**3 Year Rolling Percentile Rank All Public Plans-Total Fund**



**5 Year Rolling Percentile Rank All Public Plans-Total Fund**

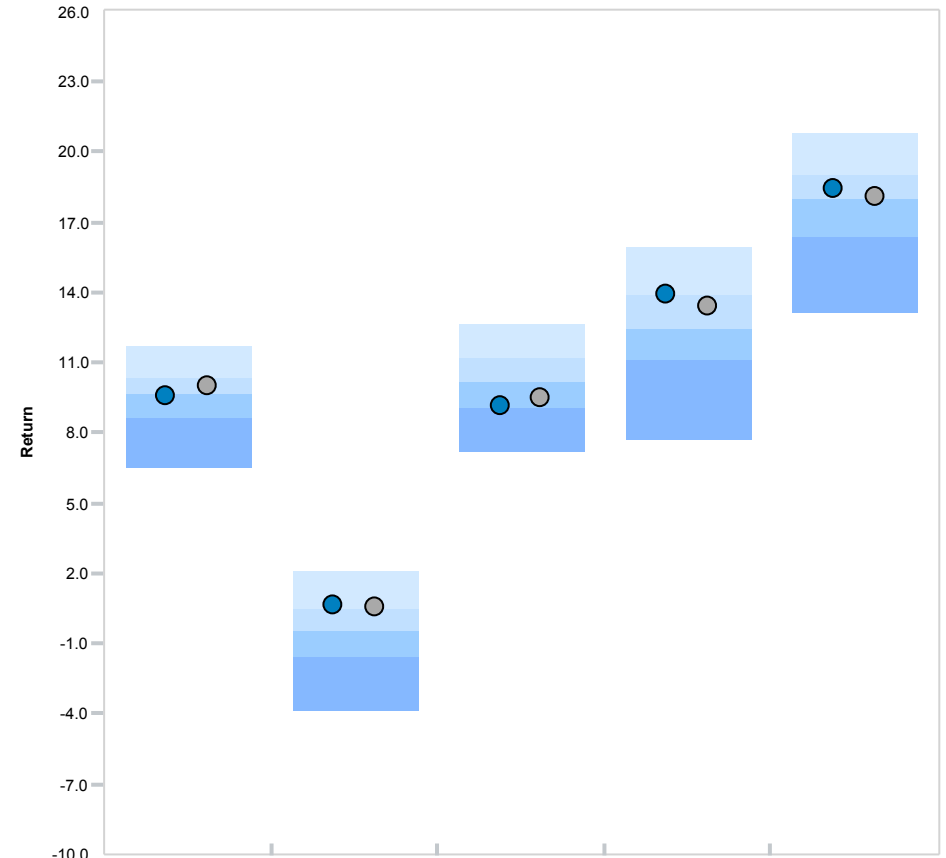


**Plan Sponsor Peer Group Analysis vs. All Public Plans-Total Fund**



	QTR	FYTD	1 YR	2 YR	3 YR	5 YR
● Investment	3.00 (85)	11.66 (64)	11.66 (64)	10.60 (57)	7.16 (36)	8.88 (40)
● Index	3.06 (81)	10.90 (78)	10.90 (78)	10.45 (64)	7.06 (41)	8.79 (45)
Median	3.44	12.17	12.17	10.81	6.82	8.64

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



	4 Quarters Ending Sep-2016	4 Quarters Ending Sep-2015	4 Quarters Ending Sep-2014	4 Quarters Ending Sep-2013	4 Quarters Ending Sep-2012
● Investment	9.56 (54)	0.60 (24)	9.19 (72)	13.87 (26)	18.40 (39)
● Index	10.01 (39)	0.59 (24)	9.47 (65)	13.44 (35)	18.12 (46)
Median	9.67	-0.50	10.17	12.50	17.98

**Comparative Performance**

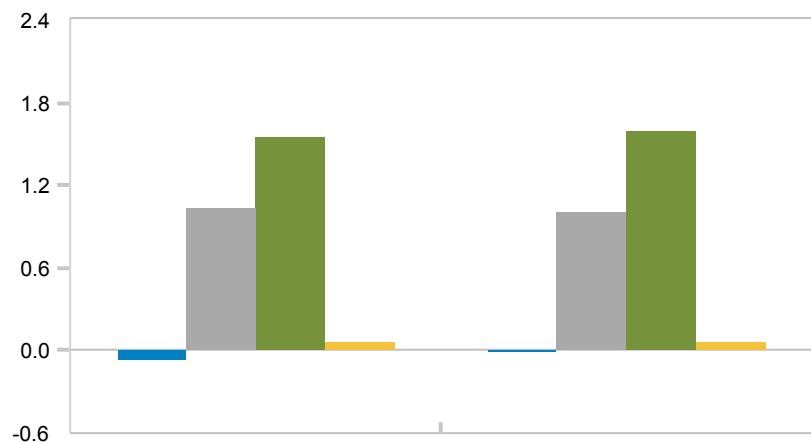
	1 Qtr Ending Jun-2017	1 Qtr Ending Mar-2017	1 Qtr Ending Dec-2016	1 Qtr Ending Sep-2016	1 Qtr Ending Jun-2016	1 Qtr Ending Mar-2016
Investment	2.71 (70)	3.04 (95)	2.44 (5)	3.49 (47)	1.74 (62)	1.44 (27)
Index	2.36 (87)	3.59 (88)	1.49 (20)	2.98 (71)	2.16 (33)	1.70 (17)
Median	2.99	4.43	0.79	3.40	1.90	1.04



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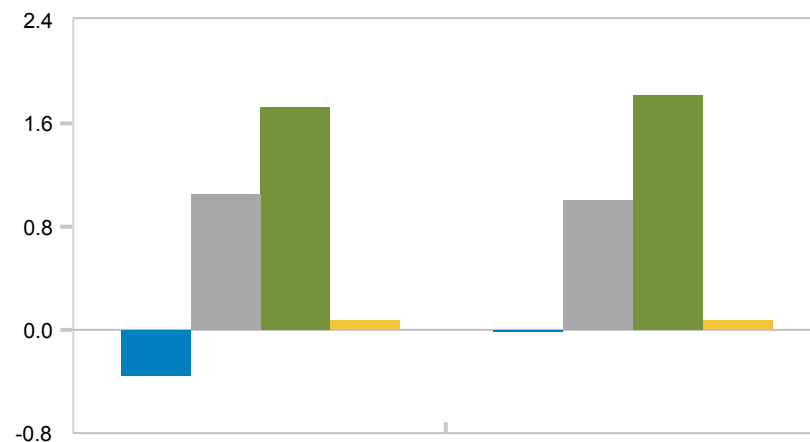


Risk / Reward Historical Statistics 3 Years Ending September 30, 2017



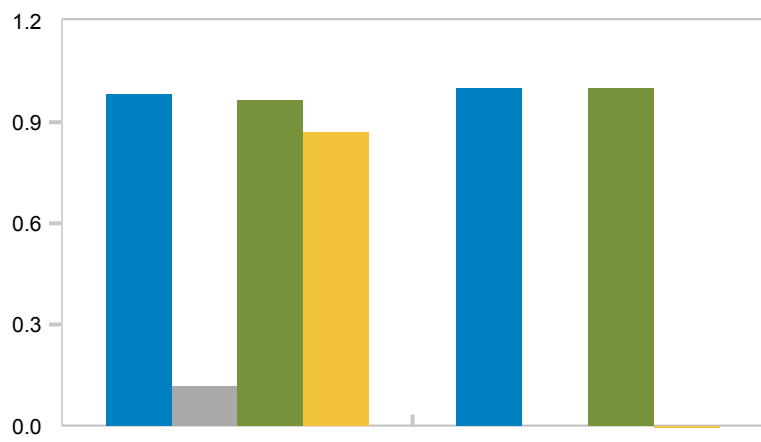
	Total Fund Composite	Total Fund Policy Index
Alpha	-0.06	0.00
Beta	1.02	1.00
Sharpe Ratio	1.55	1.59
Treynor Ratio	0.07	0.07

Risk / Reward Historical Statistics 5 Years Ending September 30, 2017



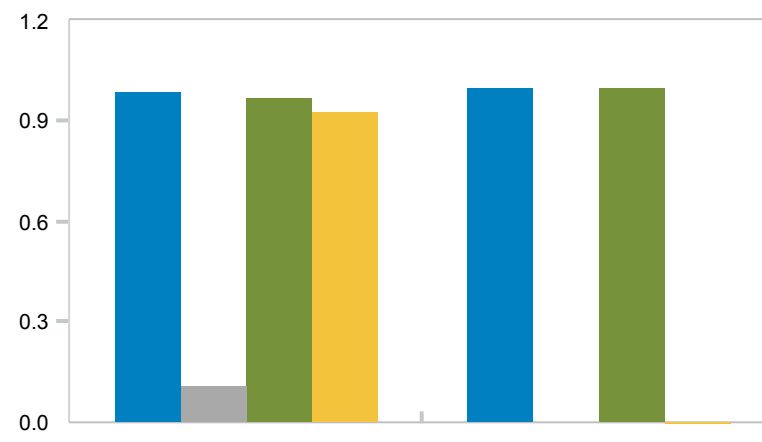
	Total Fund Composite	Total Fund Policy Index
Alpha	-0.36	0.00
Beta	1.05	1.00
Sharpe Ratio	1.72	1.82
Treynor Ratio	0.08	0.08

Benchmark Relative Historical Statistics 3 Years Ending September 30, 2017



	Total Fund Composite	Total Fund Policy Index
Actual Correlation	0.98	1.00
Information Ratio	0.12	N/A
R-Squared	0.96	1.00
Tracking Error	0.87	0.00

Benchmark Relative Historical Statistics 5 Years Ending September 30, 2017

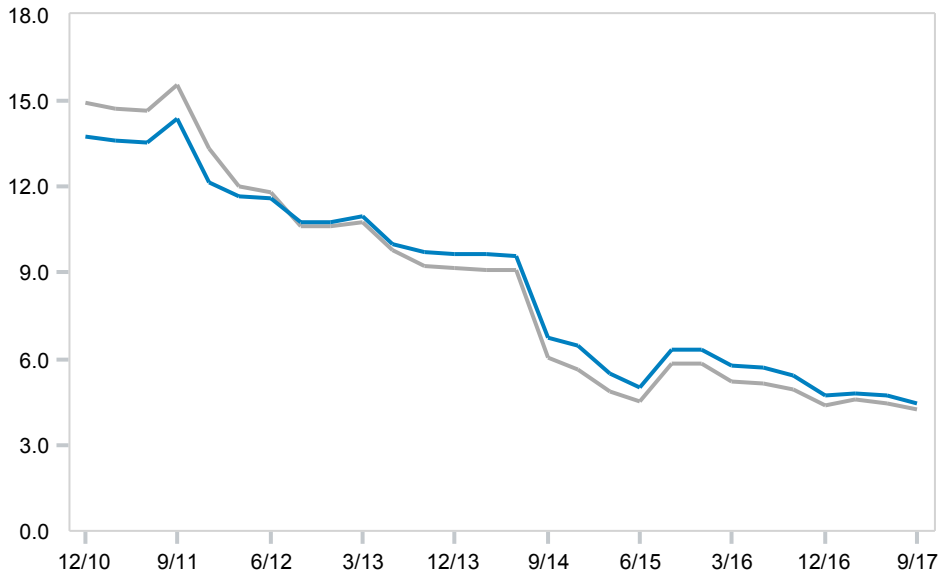


	Total Fund Composite	Total Fund Policy Index
Actual Correlation	0.98	1.00
Information Ratio	0.11	N/A
R-Squared	0.97	1.00
Tracking Error	0.92	0.00

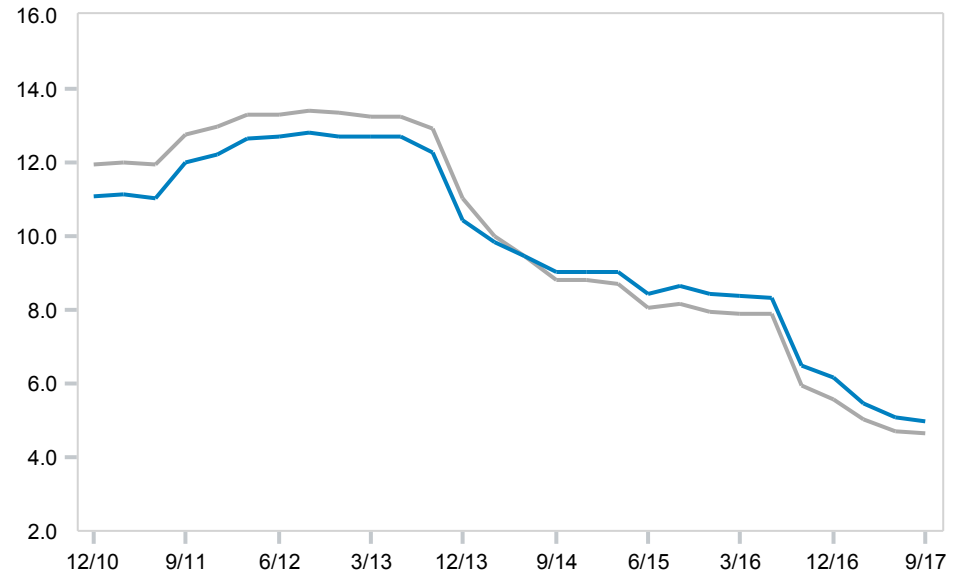
Benchmark: Total Fund Policy Index



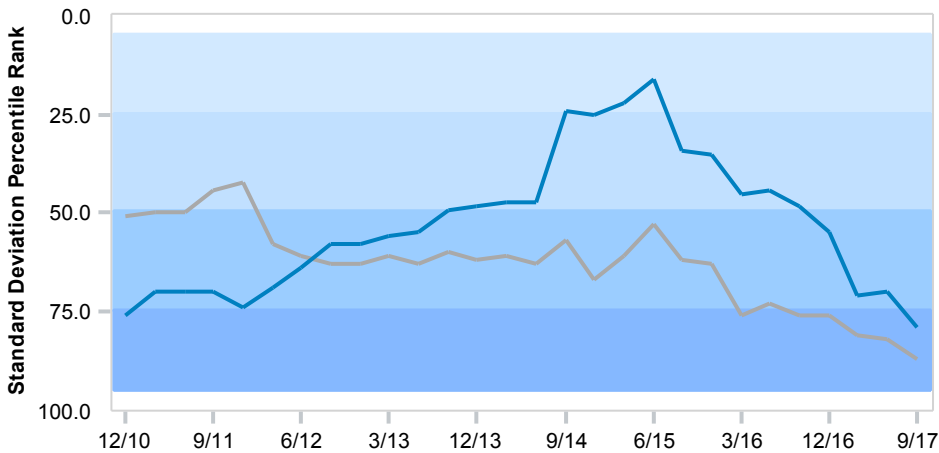
Standard Deviation 12 Quarters Rolling Periods As of September 30, 2017



Standard Deviation 20 Quarters Rolling Periods As of September 30, 2017

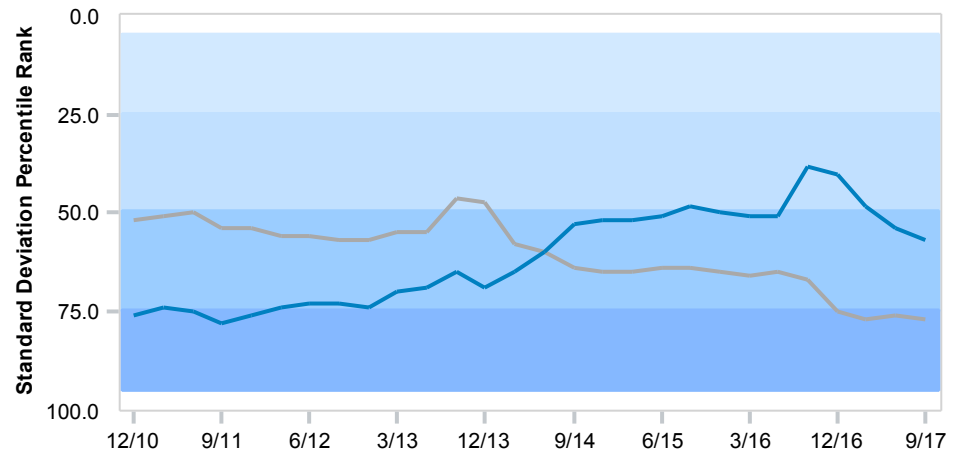


Rolling Percentile Ranking 12 Quarters Rolling Periods As of September 30, 2017



	Total Period	5-25 Count	25-50 Count	50-75 Count	75-95 Count
— Total Fund Composite	28	4 (14%)	9 (32%)	13 (46%)	2 (7%)
— Total Fund Policy Index	28	0 (0%)	4 (14%)	18 (64%)	6 (21%)

Rolling Percentile Ranking 20 Quarters Rolling Periods As of September 30, 2017



	Total Period	5-25 Count	25-50 Count	50-75 Count	75-95 Count
— Total Fund Composite	28	0 (0%)	5 (18%)	20 (71%)	3 (11%)
— Total Fund Policy Index	28	0 (0%)	3 (11%)	22 (79%)	3 (11%)

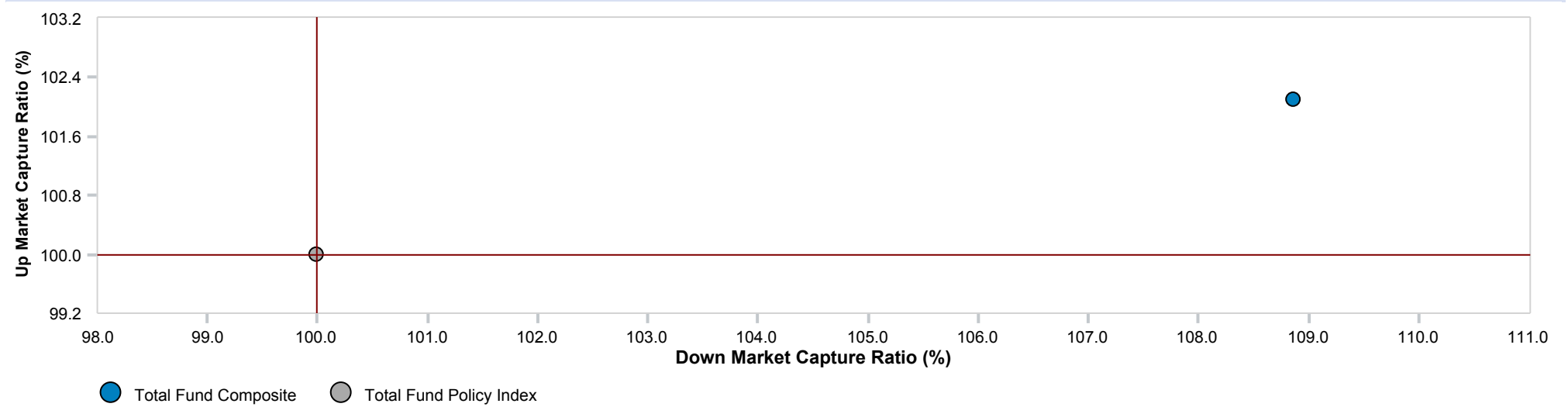
Peer: All Public Plans-Total Fund



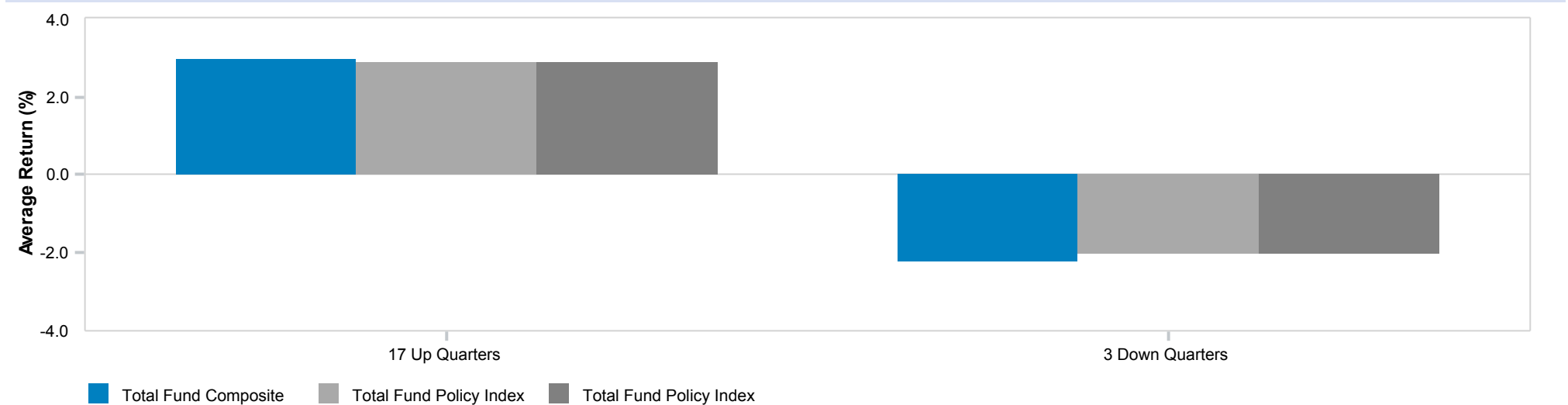
Up/Down Markets

	Full Period Return		Quarters Benchmark Up(17)				Quarters Benchmark Down(3)			
	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	8.88	8.79	8	0.50	9	-0.33	0	0.00	3	-0.18
Total Fund Policy Index	8.79	8.79	17	0.00	0	0.00	3	0.00	0	0.00

Up/Down Markets



Up Down Market Bar Chart

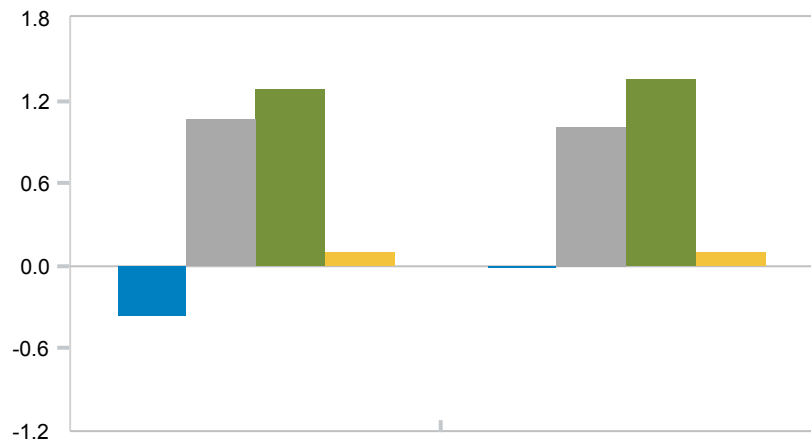


Calculation based on quarterly periodicity.



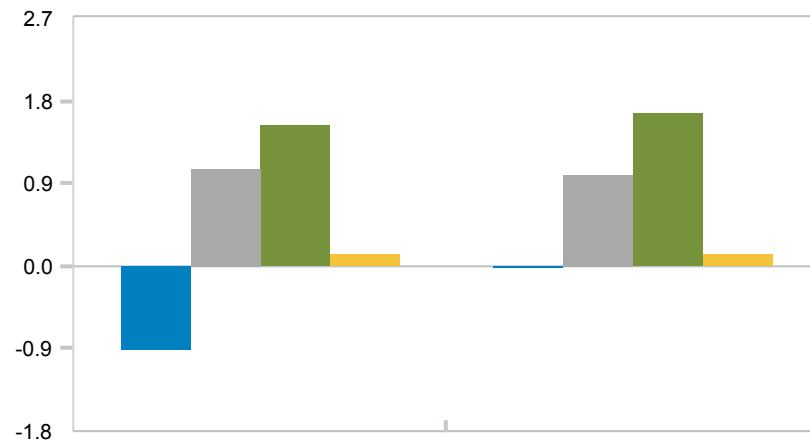


Risk / Reward Historical Statistics 3 Years Ending September 30, 2017



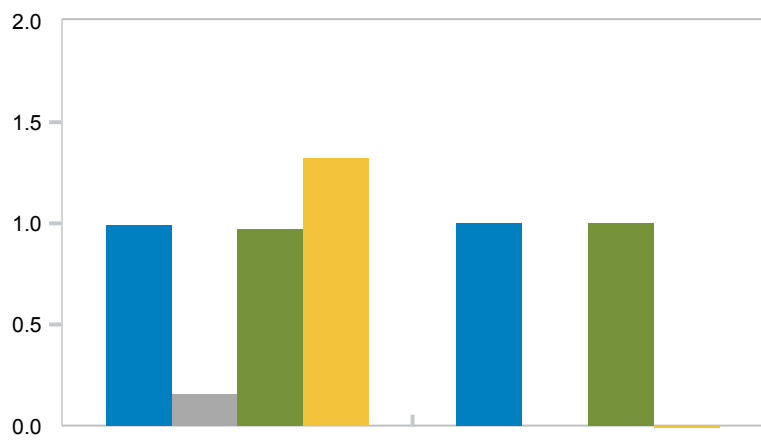
	Total Equity Composite	Total Equity Policy Index
Alpha	-0.36	0.00
Beta	1.06	1.00
Sharpe Ratio	1.28	1.35
Treynor Ratio	0.09	0.10

Risk / Reward Historical Statistics 5 Years Ending September 30, 2017



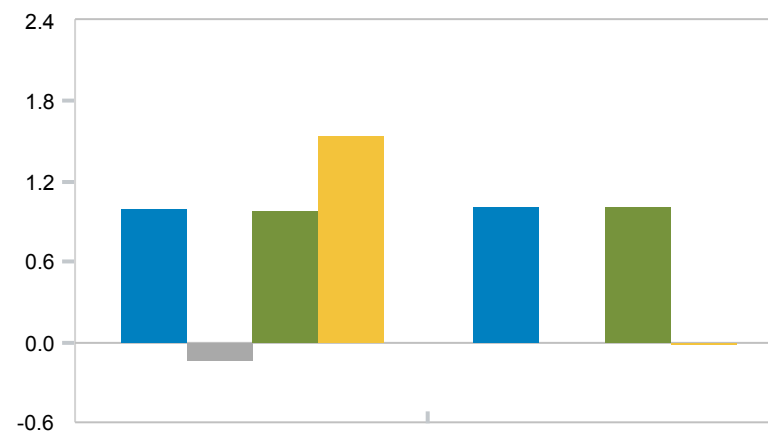
	Total Equity Composite	Total Equity Policy Index
Alpha	-0.91	0.00
Beta	1.05	1.00
Sharpe Ratio	1.52	1.66
Treynor Ratio	0.12	0.13

Benchmark Relative Historical Statistics 3 Years Ending September 30, 2017



	Total Equity Composite	Total Equity Policy Index
Actual Correlation	0.99	1.00
Information Ratio	0.16	N/A
R-Squared	0.97	1.00
Tracking Error	1.33	0.00

Benchmark Relative Historical Statistics 5 Years Ending September 30, 2017

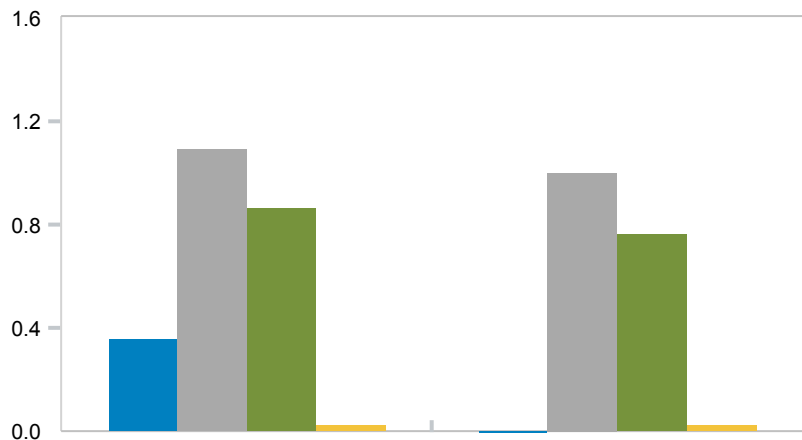


	Total Equity Composite	Total Equity Policy Index
Actual Correlation	0.98	1.00
Information Ratio	-0.14	N/A
R-Squared	0.97	1.00
Tracking Error	1.53	0.00

Benchmark: Total Equity Policy Index

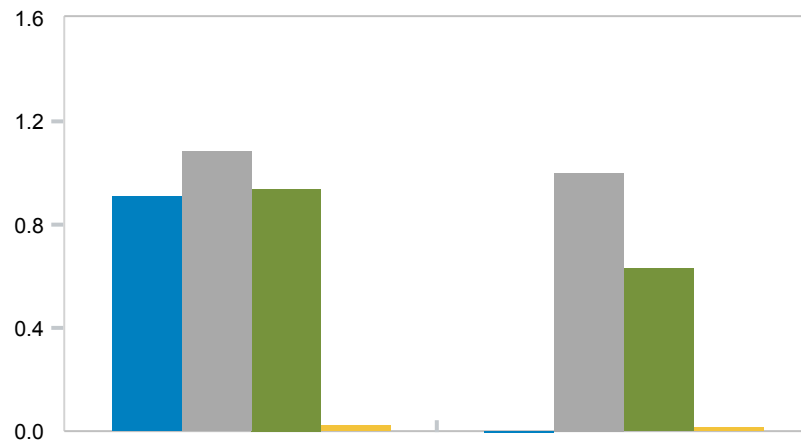


**Risk / Reward Historical Statistics 3 Years Ending September 30, 2017**



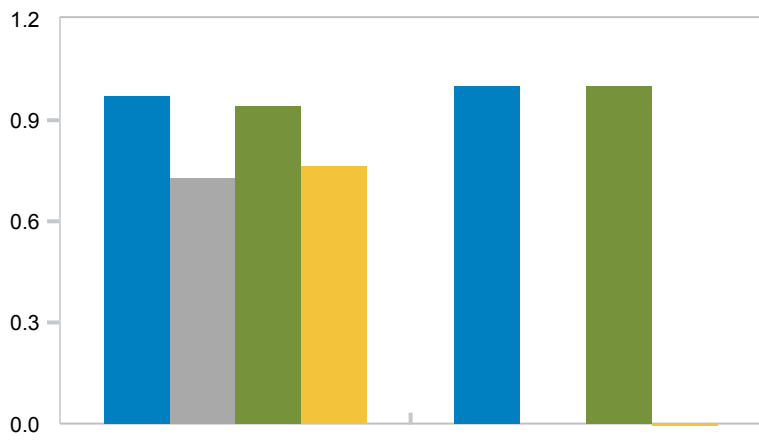
	Total Fixed Income Composite	Total Fixed Income Policy Index
Alpha	0.35	0.00
Beta	1.09	1.00
Sharpe Ratio	0.86	0.76
Treynor Ratio	0.02	0.02

**Risk / Reward Historical Statistics 5 Years Ending September 30, 2017**



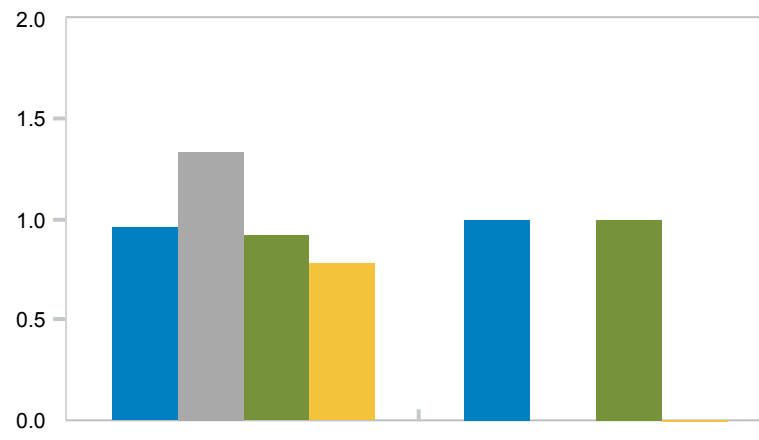
	Total Fixed Income Composite	Total Fixed Income Policy Index
Alpha	0.91	0.00
Beta	1.08	1.00
Sharpe Ratio	0.94	0.63
Treynor Ratio	0.02	0.02

**Benchmark Relative Historical Statistics 3 Years Ending September 30, 2017**



	Total Fixed Income Composite	Total Fixed Income Policy Index
Actual Correlation	0.97	1.00
Information Ratio	0.73	N/A
R-Squared	0.94	1.00
Tracking Error	0.77	0.00

**Benchmark Relative Historical Statistics 5 Years Ending September 30, 2017**



	Total Fixed Income Composite	Total Fixed Income Policy Index
Actual Correlation	0.96	1.00
Information Ratio	1.34	N/A
R-Squared	0.92	1.00
Tracking Error	0.78	0.00

Benchmark: Total Fixed Income Policy Index



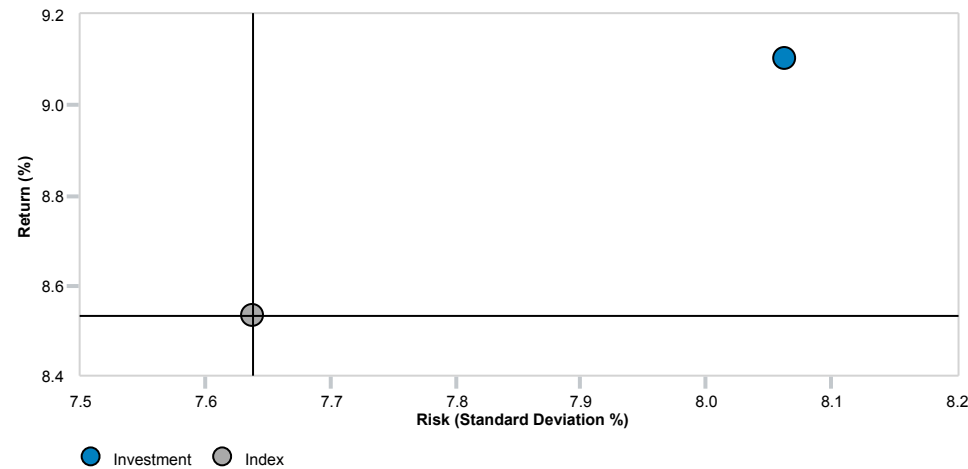
**Historical Statistics 3 Years**

	Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters
Investment	9.10	8.06	1.10	107.59	10	110.34	2
Index	8.53	7.64	1.09	100.00	10	100.00	2

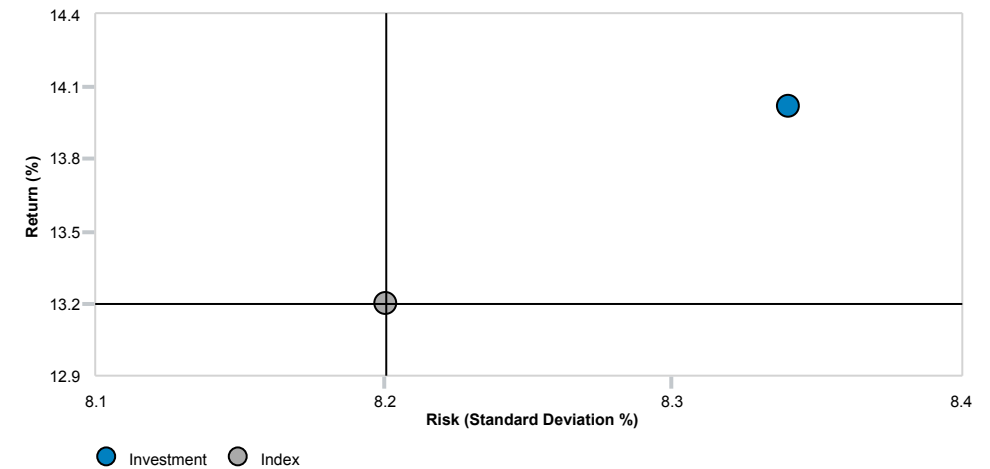
**Historical Statistics 5 Years**

	Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters
Investment	14.02	8.34	1.62	107.14	17	116.00	3
Index	13.20	8.20	1.55	100.00	17	100.00	3

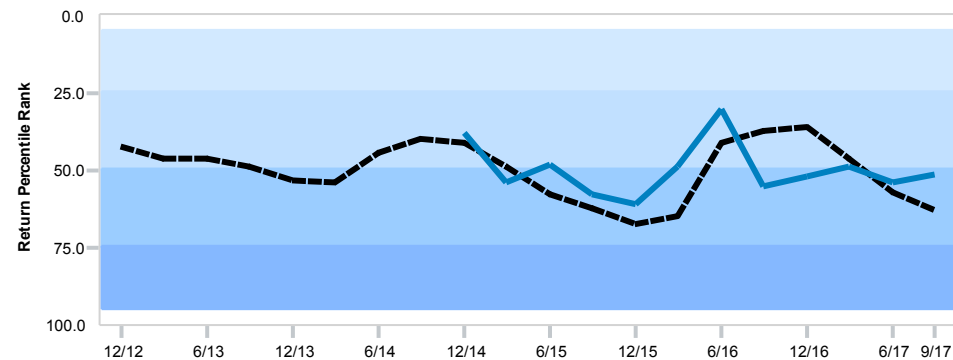
**Risk and Return 3 Years**



**Risk and Return 5 Years**

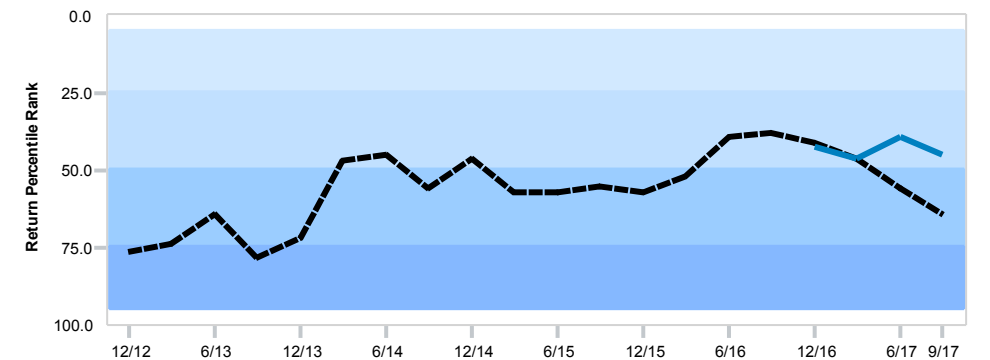


**3 Year Rolling Percentile Rank IM U.S. Large Cap Value Equity (SA+CF)**



	Total Period	5-25 Count	25-Median Count	Median-75 Count	75-95 Count
Investment	12	0 (0%)	5 (42%)	7 (58%)	0 (0%)
Index	20	0 (0%)	12 (60%)	8 (40%)	0 (0%)

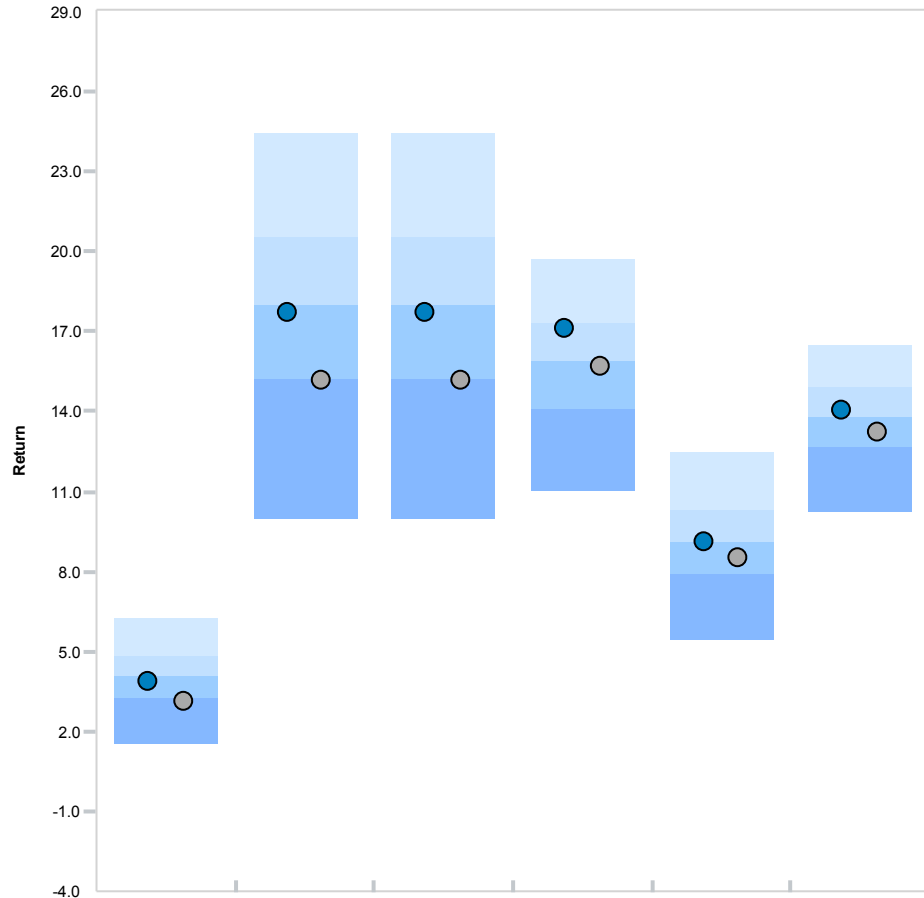
**5 Year Rolling Percentile Rank IM U.S. Large Cap Value Equity (SA+CF)**



	Total Period	5-25 Count	25-Median Count	Median-75 Count	75-95 Count
Investment	4	0 (0%)	4 (100%)	0 (0%)	0 (0%)
Index	20	0 (0%)	7 (35%)	11 (55%)	2 (10%)

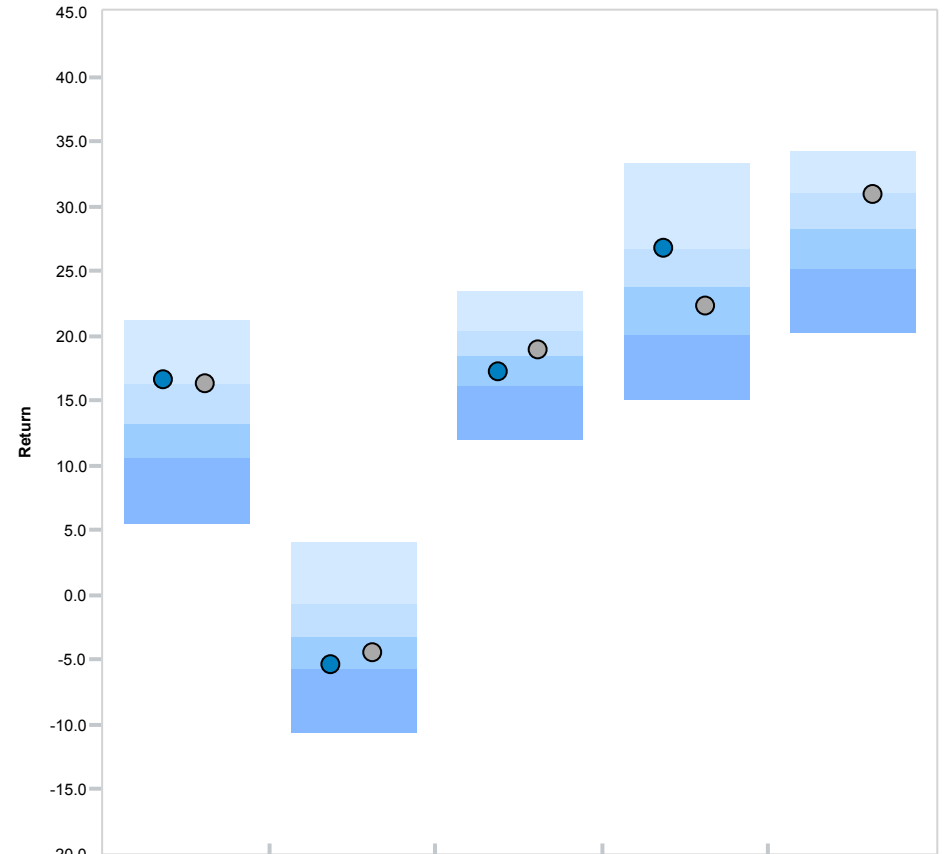


Plan Sponsor Peer Group Analysis vs. IM U.S. Large Cap Value Equity (SA+CF)



	QTR	FYTD	1 YR	2 YR	3 YR	5 YR
● Investment	3.82 (60)	17.71 (55)	17.71 (55)	17.14 (27)	9.10 (51)	14.02 (45)
● Index	3.11 (80)	15.12 (77)	15.12 (77)	15.66 (52)	8.53 (63)	13.20 (64)
Median	4.10	17.99	17.99	15.88	9.13	13.82

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



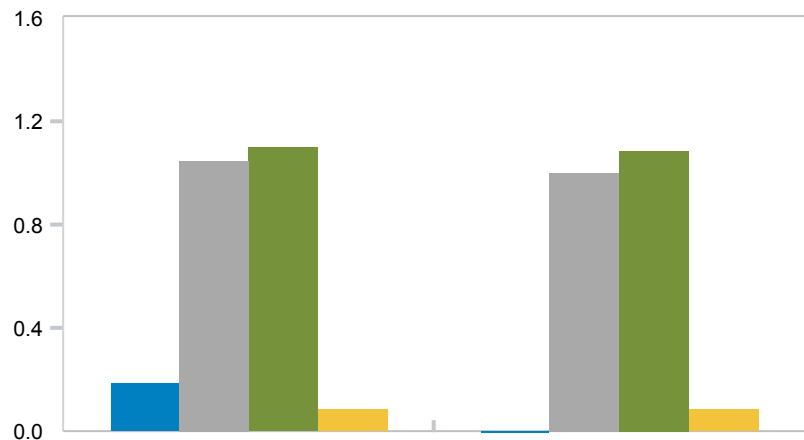
	4 Quarters Ending Sep-2016	4 Quarters Ending Sep-2015	4 Quarters Ending Sep-2014	4 Quarters Ending Sep-2013	4 Quarters Ending Sep-2012
● Investment	16.57 (23)	-5.35 (71)	17.16 (65)	26.65 (26)	N/A
● Index	16.19 (26)	-4.42 (65)	18.89 (42)	22.30 (61)	30.92 (26)
Median	13.19	-3.29	18.35	23.76	28.29

Comparative Performance

	1 Qtr Ending Jun-2017	1 Qtr Ending Mar-2017	1 Qtr Ending Dec-2016	1 Qtr Ending Sep-2016	1 Qtr Ending Jun-2016	1 Qtr Ending Mar-2016
Investment	2.53 (37)	3.56 (63)	6.78 (44)	3.35 (64)	4.52 (15)	1.00 (45)
Index	1.34 (72)	3.27 (71)	6.68 (46)	3.48 (60)	4.58 (14)	1.64 (36)
Median	2.05	3.99	6.42	4.06	2.38	0.66

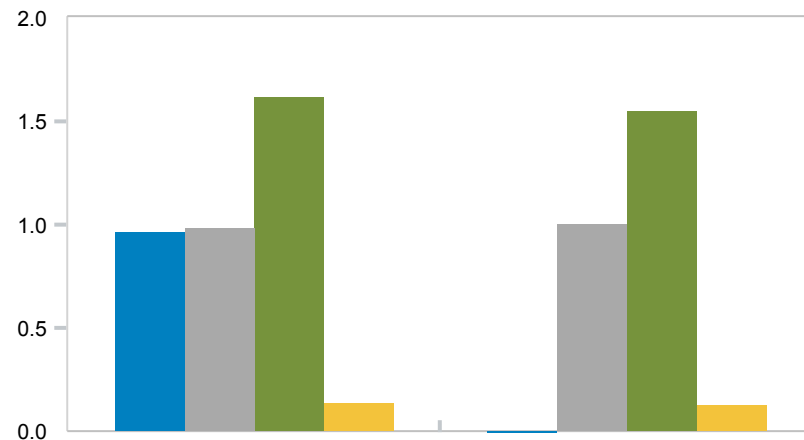


**Risk / Reward Historical Statistics 3 Years Ending September 30, 2017**



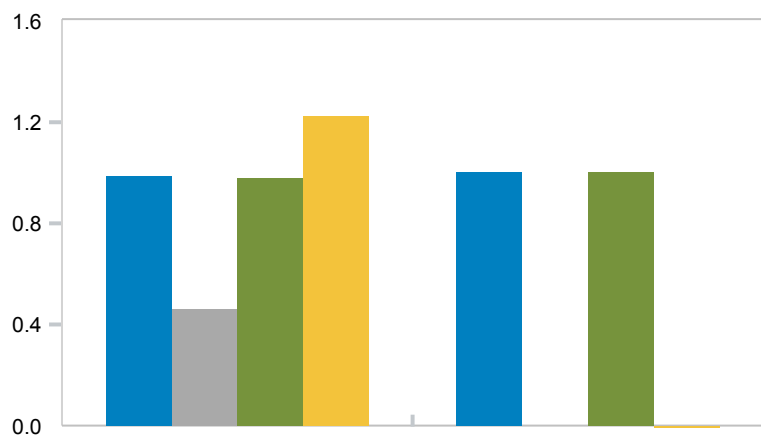
	Ceredex Equity	Russell 1000 Value Index
Alpha	0.19	0.00
Beta	1.04	1.00
Sharpe Ratio	1.10	1.09
Treynor Ratio	0.08	0.08

**Risk / Reward Historical Statistics 5 Years Ending September 30, 2017**



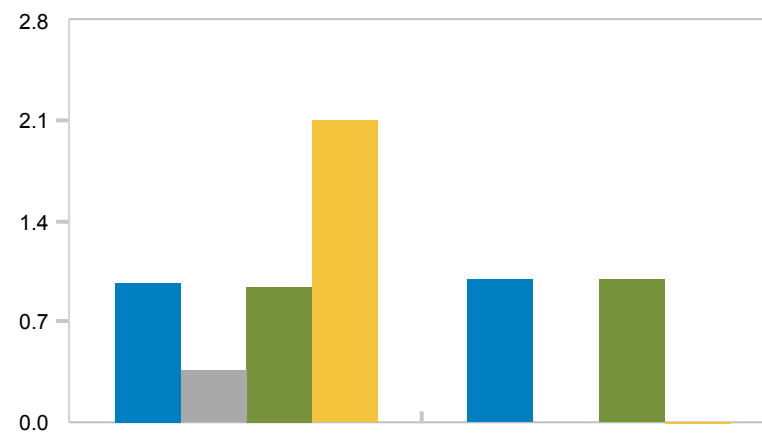
	Ceredex Equity	Russell 1000 Value Index
Alpha	0.96	0.00
Beta	0.98	1.00
Sharpe Ratio	1.62	1.55
Treynor Ratio	0.14	0.13

**Benchmark Relative Historical Statistics 3 Years Ending September 30, 2017**



	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	1.23	0.00

**Benchmark Relative Historical Statistics 5 Years Ending September 30, 2017**



	Ceredex Equity	Russell 1000 Value Index
Actual Correlation	0.97	1.00
Information Ratio	0.36	N/A
R-Squared	0.94	1.00
Tracking Error	2.11	0.00

Benchmark: Russell 1000 Value Index



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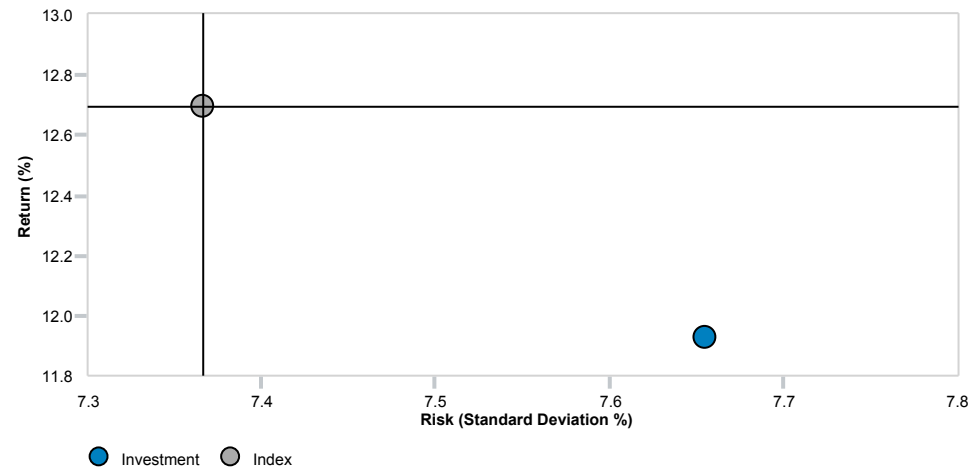
**Historical Statistics 3 Years**

	Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters
Investment	11.93	7.66	1.51	100.33	11	140.83	1
Index	12.69	7.37	1.66	100.00	11	100.00	1

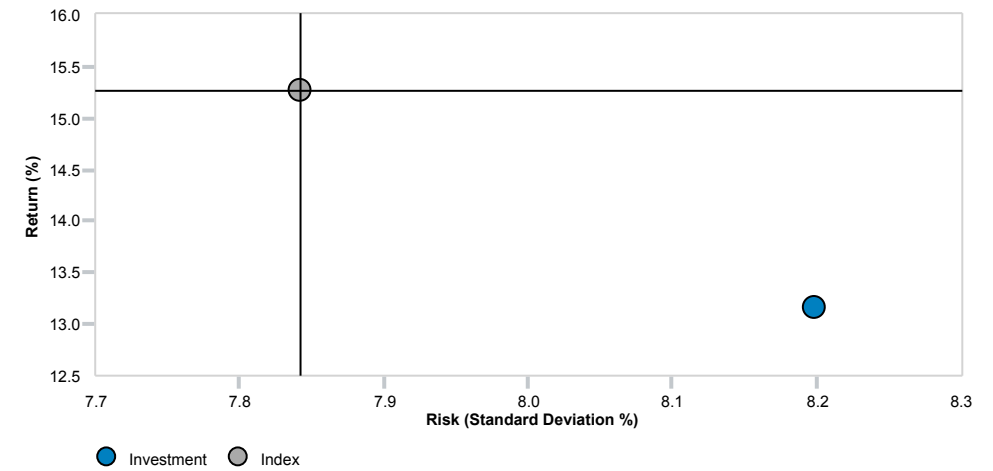
**Historical Statistics 5 Years**

	Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters
Investment	13.16	8.20	1.55	92.59	17	150.82	3
Index	15.26	7.84	1.86	100.00	18	100.00	2

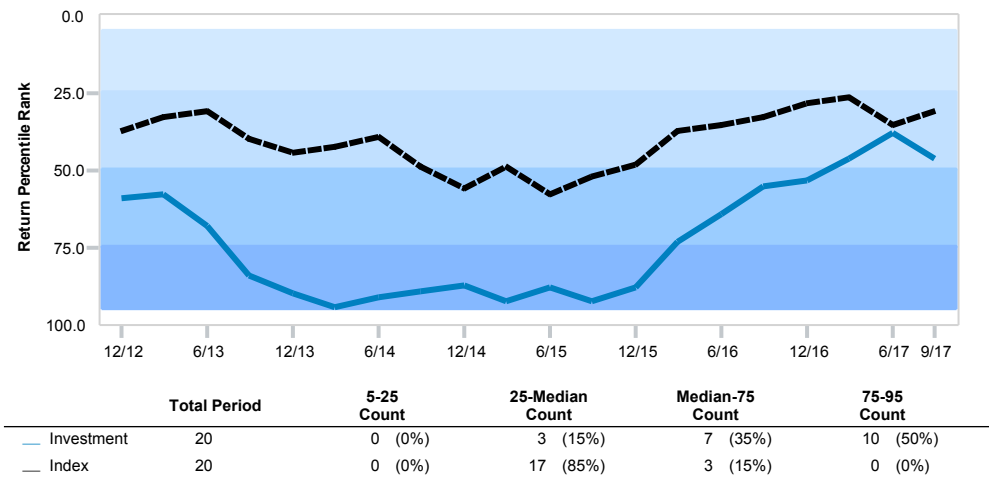
**Risk and Return 3 Years**



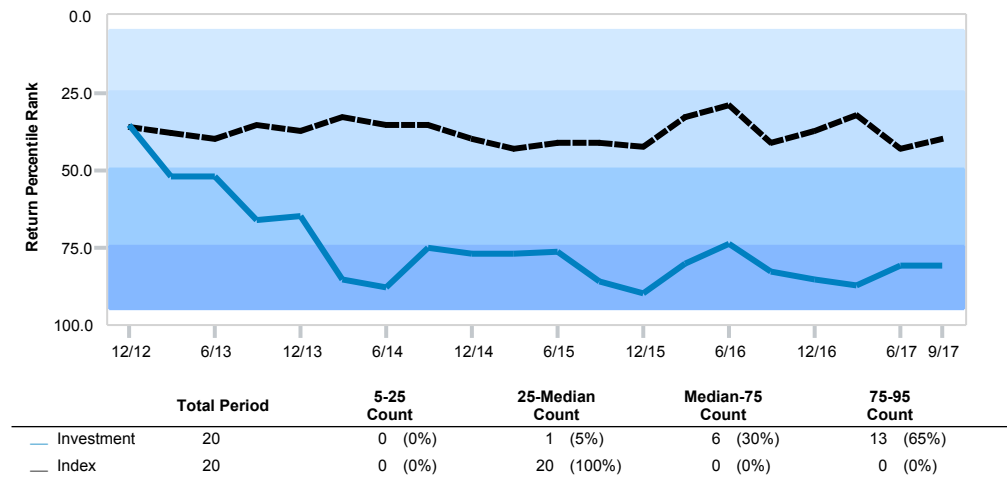
**Risk and Return 5 Years**



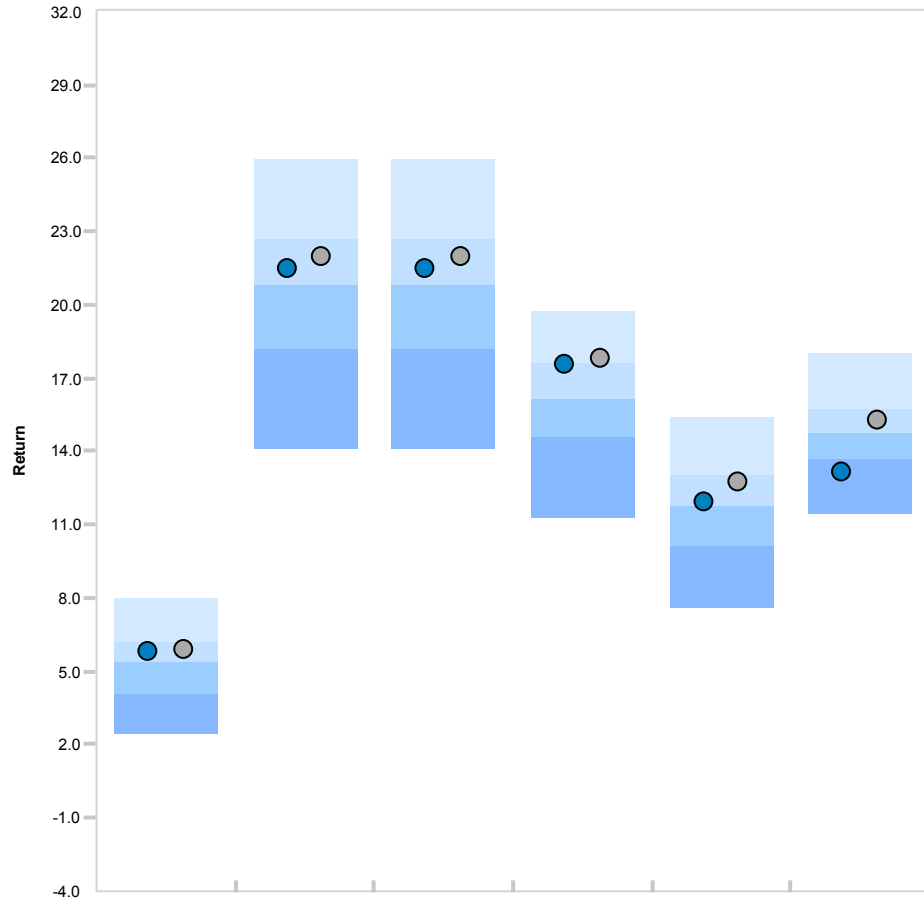
**3 Year Rolling Percentile Rank IM U.S. Large Cap Growth Equity (SA+CF)**



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

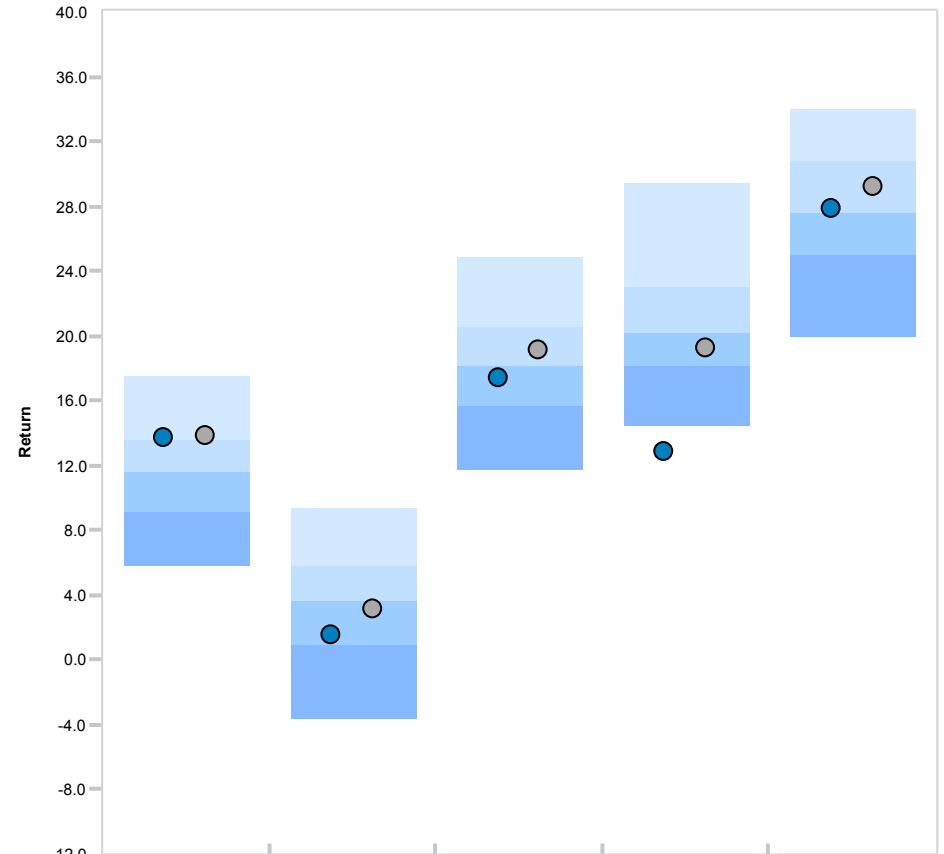


**Plan Sponsor Peer Group Analysis vs. IM U.S. Large Cap Growth Equity (SA+CF)**



	QTR	FYTD	1 YR	2 YR	3 YR	5 YR
● Investment	5.83 (36)	21.48 (41)	21.48 (41)	17.53 (27)	11.93 (46)	13.16 (81)
● Index	5.90 (35)	21.94 (36)	21.94 (36)	17.78 (22)	12.69 (31)	15.26 (40)
Median	5.41	20.80	20.80	16.15	11.75	14.81

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



	4 Quarters Ending Sep-2016	4 Quarters Ending Sep-2015	4 Quarters Ending Sep-2014	4 Quarters Ending Sep-2013	4 Quarters Ending Sep-2012
● Investment	13.71 (23)	1.52 (72)	17.32 (59)	12.80 (99)	27.88 (49)
● Index	13.76 (22)	3.17 (55)	19.15 (39)	19.27 (64)	29.19 (38)
Median	11.64	3.60	18.11	20.26	27.64

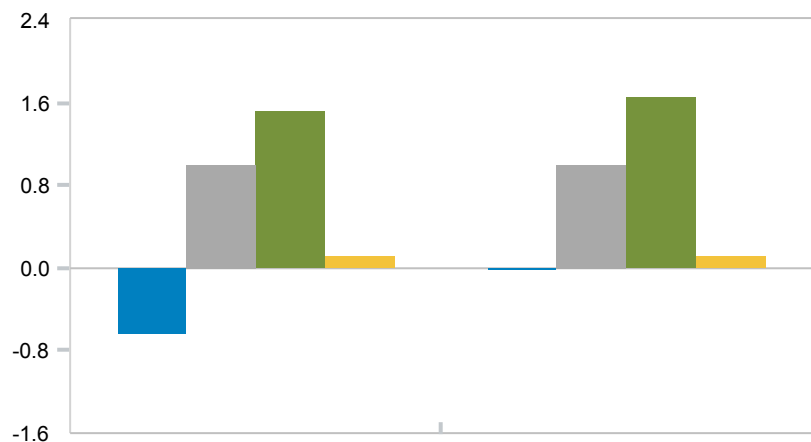
**Comparative Performance**

	1 Qtr Ending Jun-2017	1 Qtr Ending Mar-2017	1 Qtr Ending Dec-2016	1 Qtr Ending Sep-2016	1 Qtr Ending Jun-2016	1 Qtr Ending Mar-2016
Investment	5.72 (34)	7.62 (73)	0.88 (41)	4.12 (72)	1.30 (33)	1.82 (10)
Index	4.67 (56)	8.91 (48)	1.01 (38)	4.58 (61)	0.61 (50)	0.74 (22)
Median	4.98	8.79	0.21	5.14	0.58	-1.48



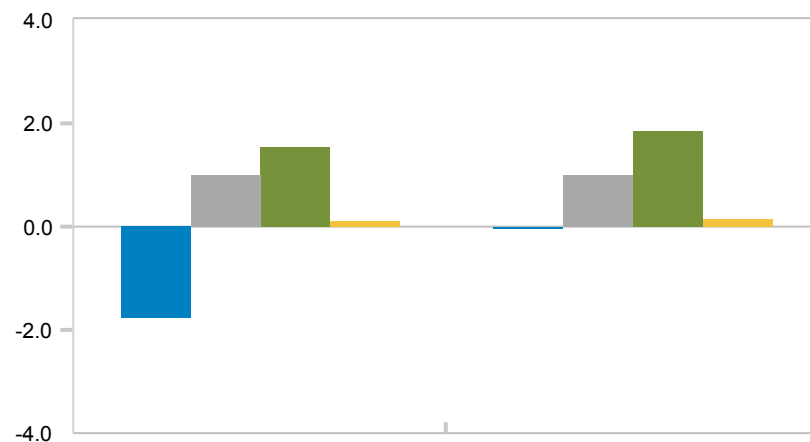


**Risk / Reward Historical Statistics 3 Years Ending September 30, 2017**



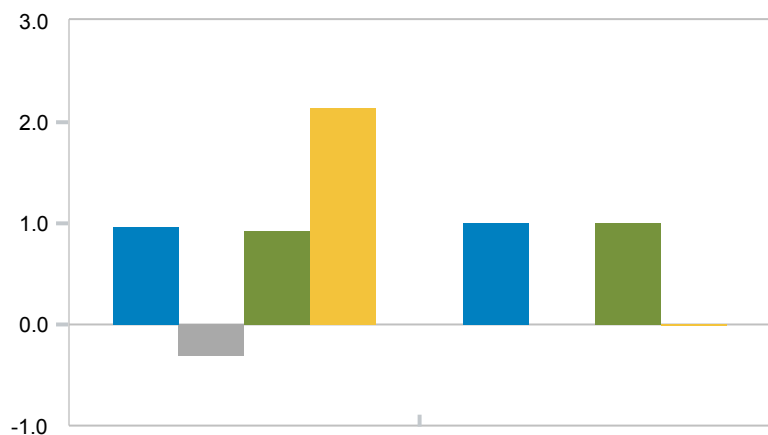
	GHA LCG	Russell 1000 Growth Index
Alpha	-0.64	0.00
Beta	1.00	1.00
Sharpe Ratio	1.51	1.66
Treynor Ratio	0.11	0.12

**Risk / Reward Historical Statistics 5 Years Ending September 30, 2017**



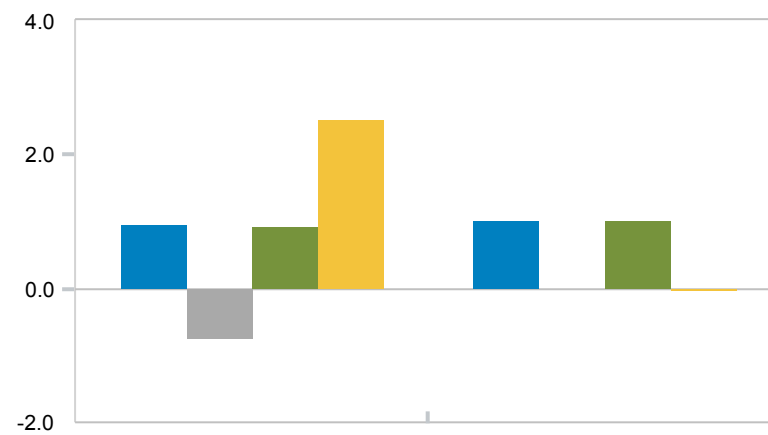
	GHA LCG	Russell 1000 Growth Index
Alpha	-1.78	0.00
Beta	0.99	1.00
Sharpe Ratio	1.55	1.86
Treynor Ratio	0.13	0.15

**Benchmark Relative Historical Statistics 3 Years Ending September 30, 2017**



	GHA LCG	Russell 1000 Growth Index
Actual Correlation	0.96	1.00
Information Ratio	-0.31	N/A
R-Squared	0.92	1.00
Tracking Error	2.15	0.00

**Benchmark Relative Historical Statistics 5 Years Ending September 30, 2017**



	GHA LCG	Russell 1000 Growth Index
Actual Correlation	0.95	1.00
Information Ratio	-0.74	N/A
R-Squared	0.91	1.00
Tracking Error	2.51	0.00

Benchmark: Russell 1000 Growth Index



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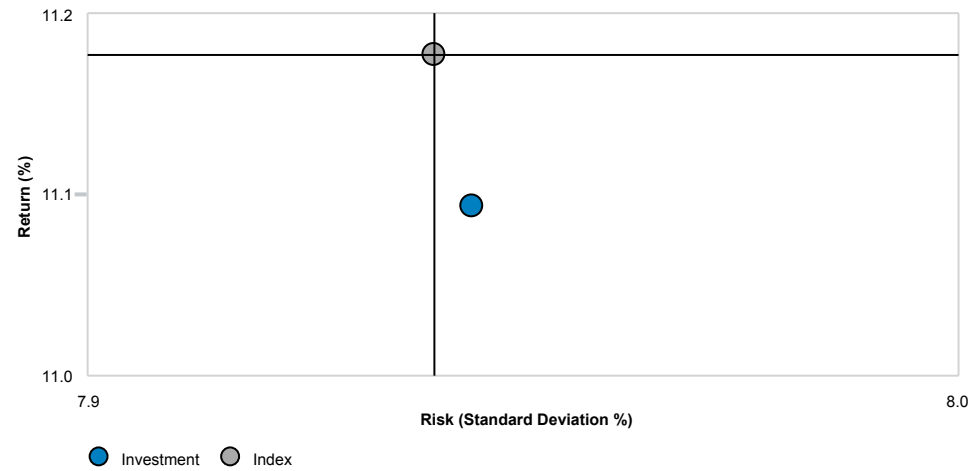
**Historical Statistics 3 Years**

	Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters
Investment	11.09	7.94	1.35	99.47	10	100.03	2
Index	11.18	7.94	1.36	100.00	10	100.00	2

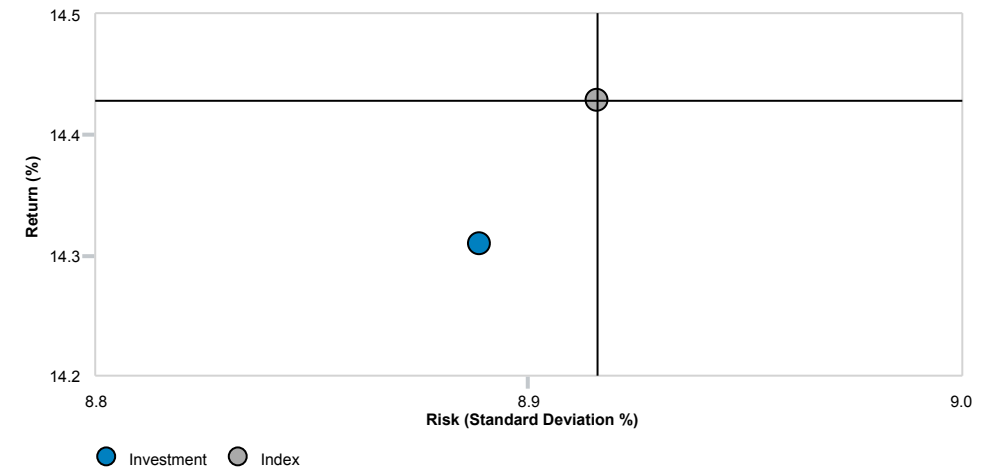
**Historical Statistics 5 Years**

	Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters
Investment	14.31	8.89	1.55	99.34	17	100.00	3
Index	14.43	8.92	1.56	100.00	17	100.00	3

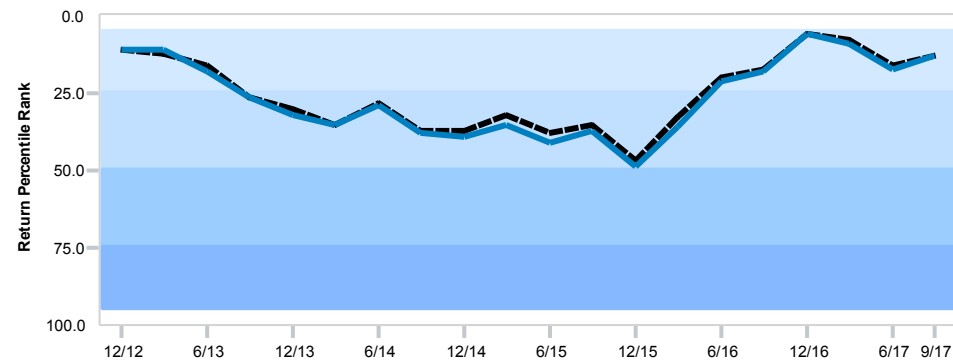
**Risk and Return 3 Years**



**Risk and Return 5 Years**

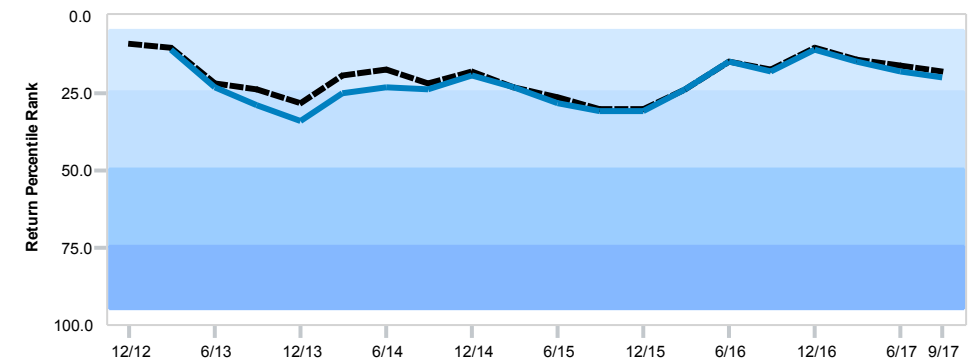


**3 Year Rolling Percentile Rank IM U.S. Mid Cap Equity (MF)**



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

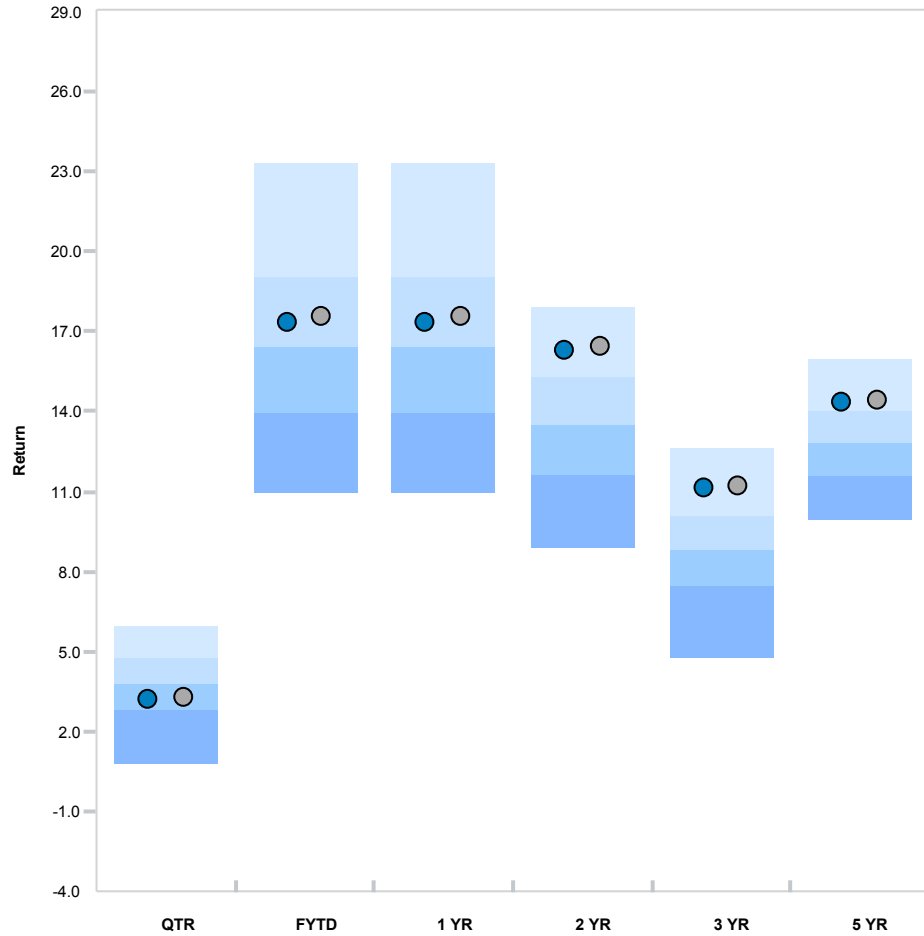
**5 Year Rolling Percentile Rank IM U.S. Mid Cap Equity (MF)**



	Total Period	5-25 Count	25-Median Count	Median-75 Count	75-95 Count
Investment	19	14 (74%)	5 (26%)	0 (0%)	0 (0%)
Index	20	16 (80%)	4 (20%)	0 (0%)	0 (0%)

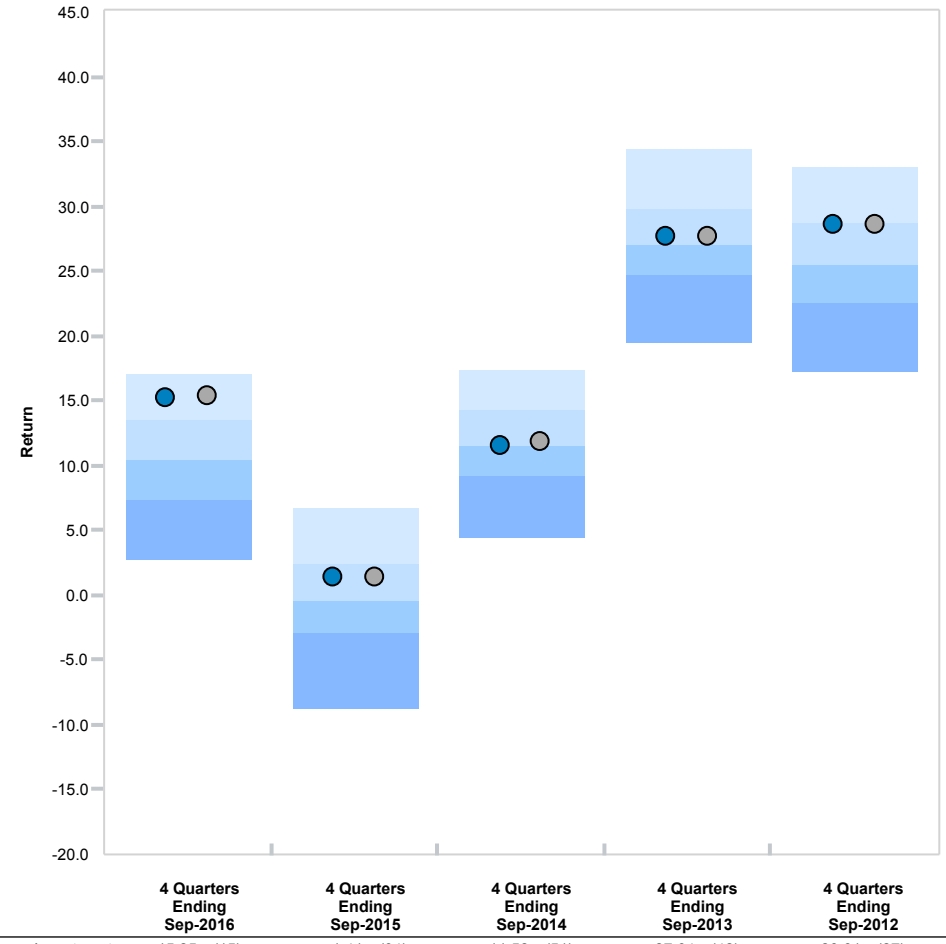


**Plan Sponsor Peer Group Analysis vs. IM U.S. Mid Cap Equity (MF)**



	QTR	FYTD	1 YR	2 YR	3 YR	5 YR
● Investment	3.20 (66)	17.31 (41)	17.31 (41)	16.28 (14)	11.09 (13)	14.31 (20)
● Index	3.22 (66)	17.52 (39)	17.52 (39)	16.42 (12)	11.18 (13)	14.43 (18)
Median	3.80	16.44	16.44	13.55	8.77	12.80

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



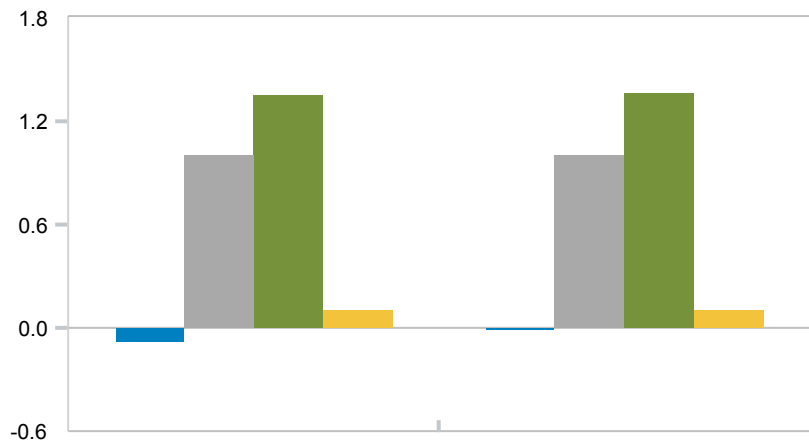
	4 Quarters Ending Sep-2016	4 Quarters Ending Sep-2015	4 Quarters Ending Sep-2014	4 Quarters Ending Sep-2013	4 Quarters Ending Sep-2012
● Investment	15.25 (15)	1.41 (34)	11.52 (51)	27.64 (42)	28.61 (27)
● Index	15.33 (14)	1.40 (34)	11.82 (48)	27.68 (41)	28.54 (27)
Median	10.49	-0.44	11.58	27.05	25.52

**Comparative Performance**

	1 Qtr Ending Jun-2017	1 Qtr Ending Mar-2017	1 Qtr Ending Dec-2016	1 Qtr Ending Sep-2016	1 Qtr Ending Jun-2016	1 Qtr Ending Mar-2016
Investment	1.84 (65)	3.92 (71)	7.41 (14)	4.14 (69)	3.98 (13)	3.76 (10)
Index	1.97 (63)	3.94 (70)	7.42 (14)	4.14 (69)	3.99 (12)	3.78 (10)
Median	2.67	5.19	3.88	4.64	2.33	0.28



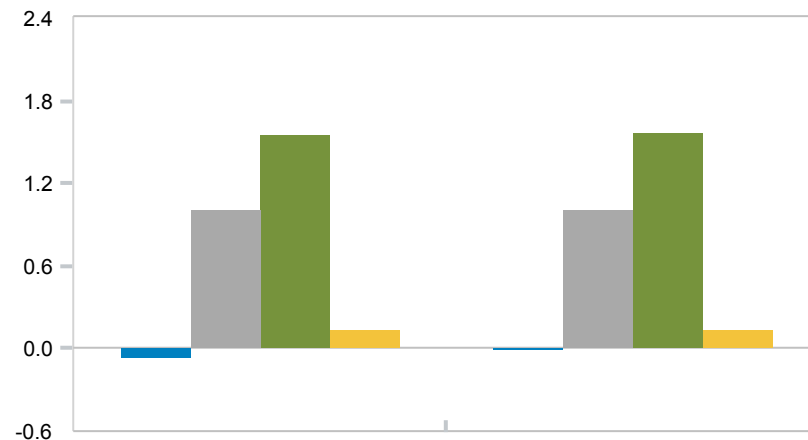
Risk / Reward Historical Statistics 3 Years Ending September 30, 2017



Mutual of America Equity      S&P MidCap 400 Index

Alpha	-0.08	0.00
Beta	1.00	1.00
Sharpe Ratio	1.35	1.36
Treynor Ratio	0.11	0.11

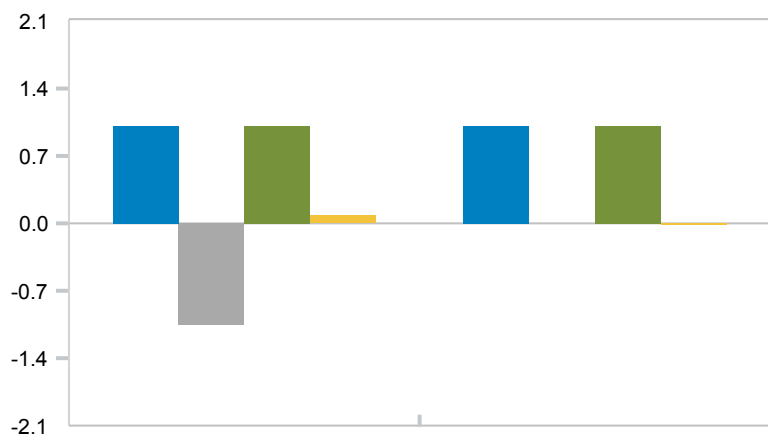
Risk / Reward Historical Statistics 5 Years Ending September 30, 2017



Mutual of America Equity      S&P MidCap 400 Index

Alpha	-0.07	0.00
Beta	1.00	1.00
Sharpe Ratio	1.55	1.56
Treynor Ratio	0.14	0.14

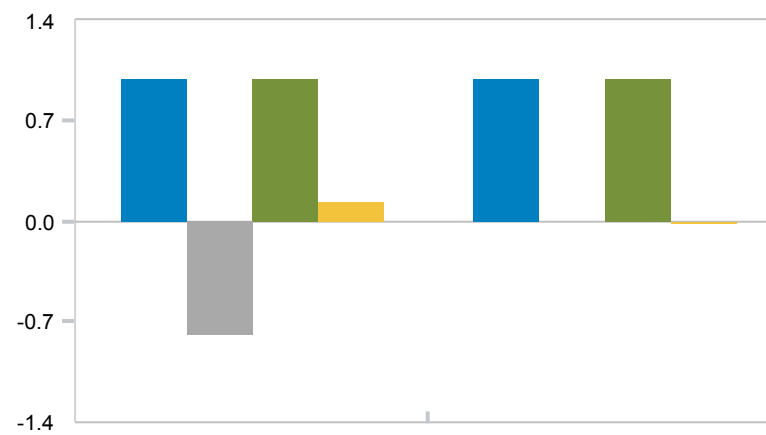
Benchmark Relative Historical Statistics 3 Years Ending September 30, 2017



Mutual of America Equity      S&P MidCap 400 Index

Actual Correlation	1.00	1.00
Information Ratio	-1.05	N/A
R-Squared	1.00	1.00
Tracking Error	0.07	0.00

Benchmark Relative Historical Statistics 5 Years Ending September 30, 2017



Mutual of America Equity      S&P MidCap 400 Index

Actual Correlation	1.00	1.00
Information Ratio	-0.79	N/A
R-Squared	1.00	1.00
Tracking Error	0.14	0.00

Benchmark: S&P MidCap 400 Index



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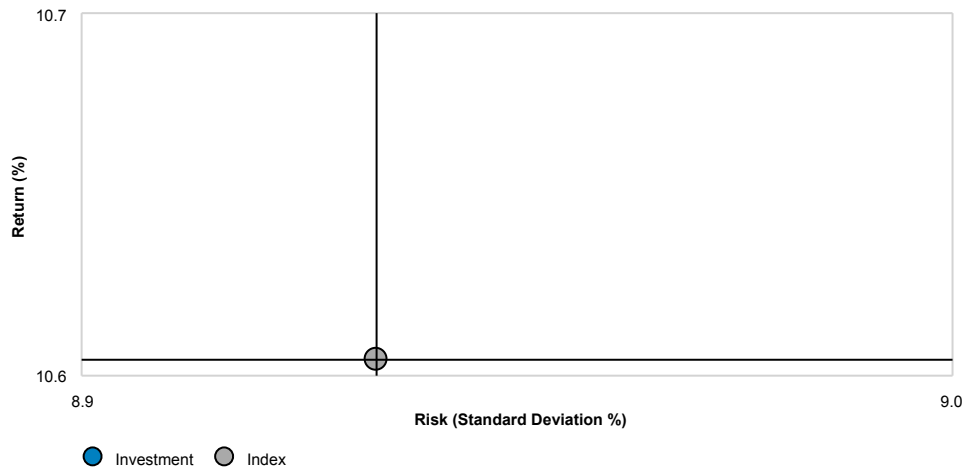
**Historical Statistics 3 Years**

	Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters
Investment	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Index	10.60	8.93	1.16	100.00	10	100.00	2

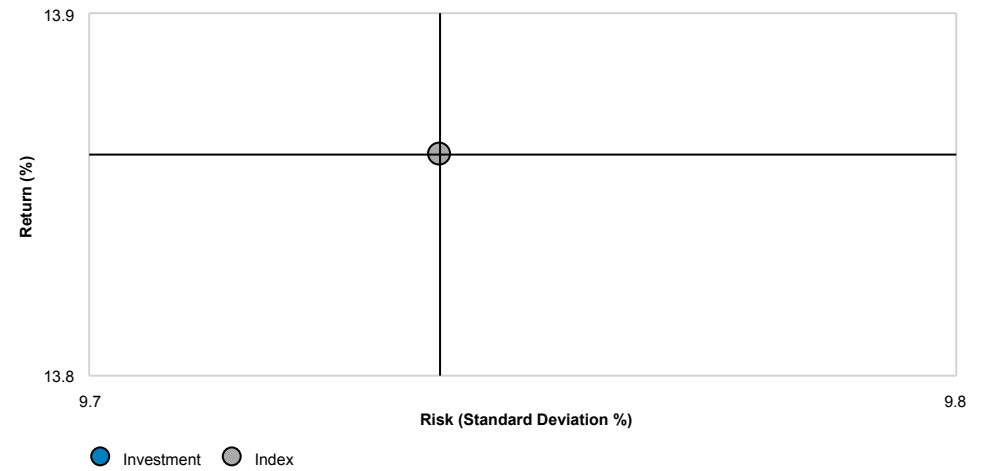
**Historical Statistics 5 Years**

	Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters
Investment	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Index	13.86	9.74	1.38	100.00	17	100.00	3

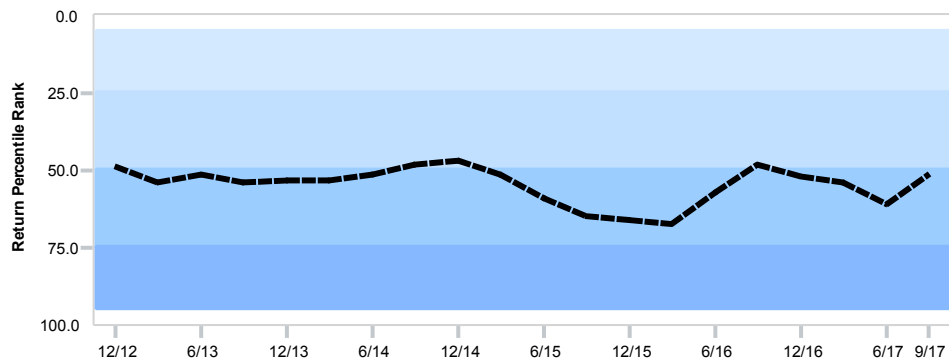
**Risk and Return 3 Years**



**Risk and Return 5 Years**

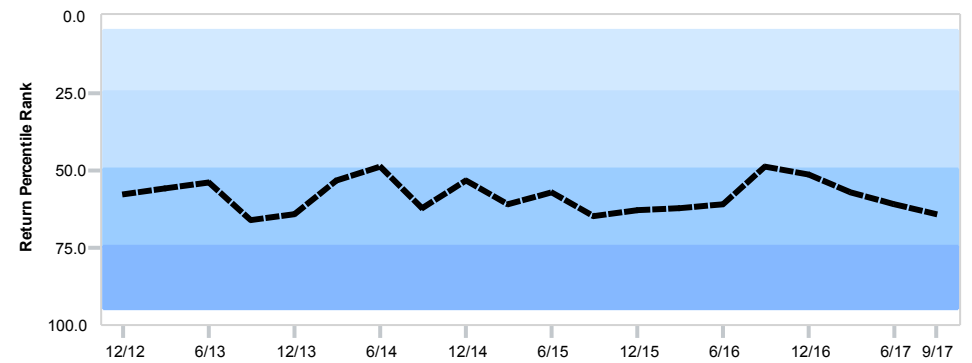


**3 Year Rolling Percentile Rank IM U.S. SMID Cap Equity (SA+CF)**



	Total Period	5-25 Count	25-Median Count	Median-75 Count	75-95 Count
Investment	0	0	0	0	0
Index	20	0 (0%)	4 (20%)	16 (80%)	0 (0%)

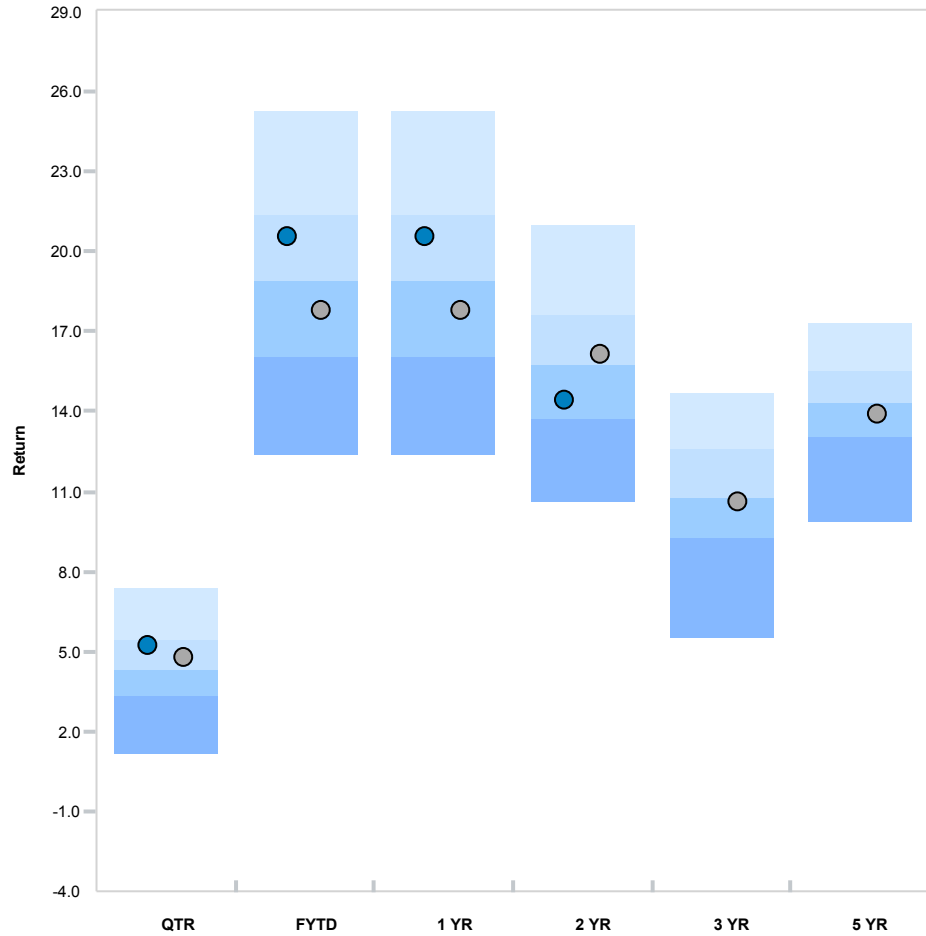
**5 Year Rolling Percentile Rank IM U.S. SMID Cap Equity (SA+CF)**



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

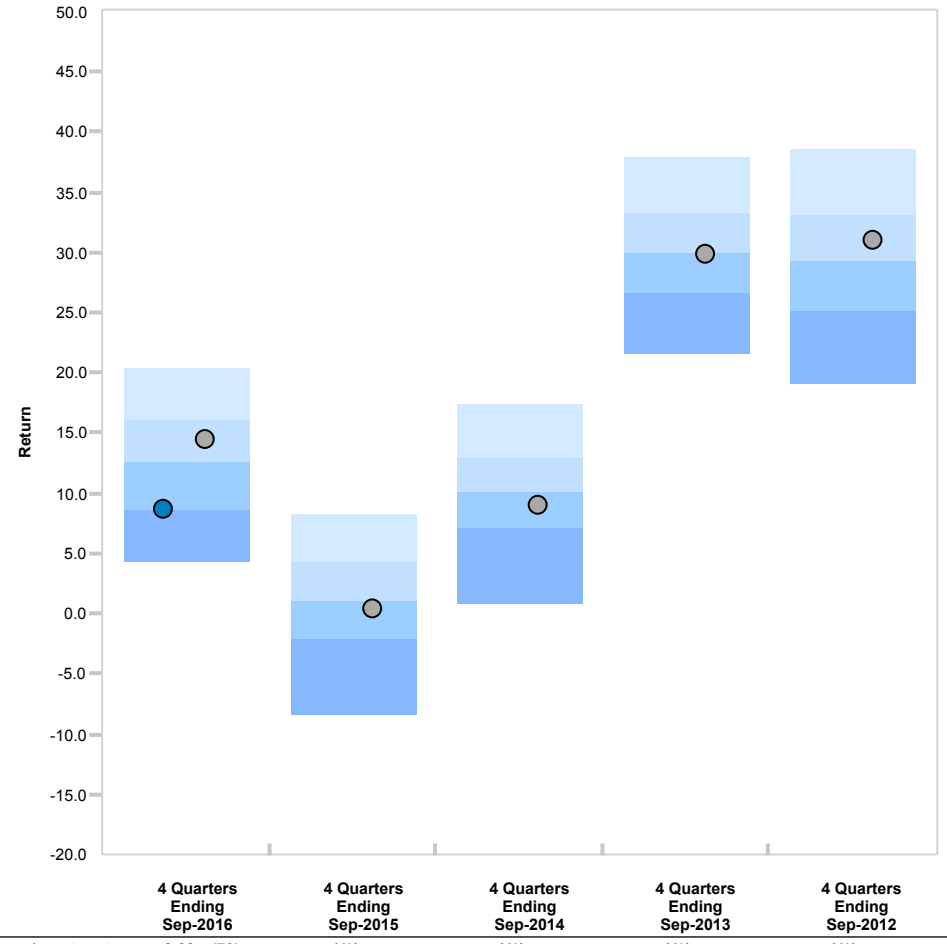


**Plan Sponsor Peer Group Analysis vs. IM U.S. SMID Cap Equity (SA+CF)**



	QTR	FYTD	1 YR	2 YR	3 YR	5 YR
● Investment	5.24 (28)	20.56 (31)	20.56 (31)	14.43 (71)	N/A	N/A
● Index	4.74 (38)	17.79 (63)	17.79 (63)	16.10 (43)	10.60 (51)	13.86 (64)
Median	4.32	18.93	18.93	15.73	10.73	14.30

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



	4 Quarters Ending Sep-2016	4 Quarters Ending Sep-2015	4 Quarters Ending Sep-2014	4 Quarters Ending Sep-2013	4 Quarters Ending Sep-2012
● Investment	8.62 (76)	N/A	N/A	N/A	N/A
● Index	14.44 (36)	0.38 (57)	8.97 (60)	29.79 (53)	30.93 (38)
Median	12.61	0.96	10.11	30.00	29.27

**Comparative Performance**

	1 Qtr Ending Jun-2017	1 Qtr Ending Mar-2017	1 Qtr Ending Dec-2016	1 Qtr Ending Sep-2016	1 Qtr Ending Jun-2016	1 Qtr Ending Mar-2016
Investment	2.59 (47)	-0.69 (97)	12.43 (5)	10.74 (4)	-2.37 (98)	-4.10 (89)
Index	2.13 (57)	3.76 (66)	6.12 (50)	6.56 (40)	3.57 (31)	0.39 (58)
Median	2.36	4.39	6.08	5.87	2.69	0.81





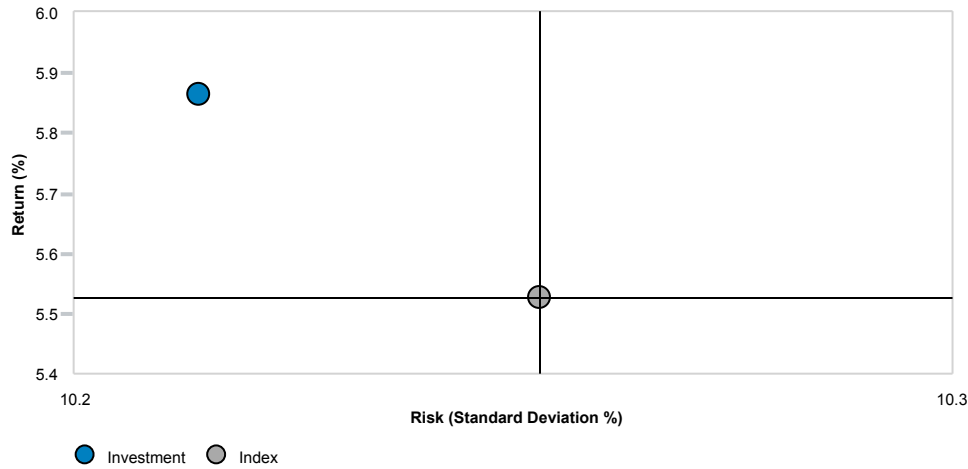
**Historical Statistics 3 Years**

	Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters
Investment	5.86	10.21	0.59	100.85	7	96.46	5
Index	5.53	10.25	0.56	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	8.87	10.30	0.87	100.00	13	100.00	7

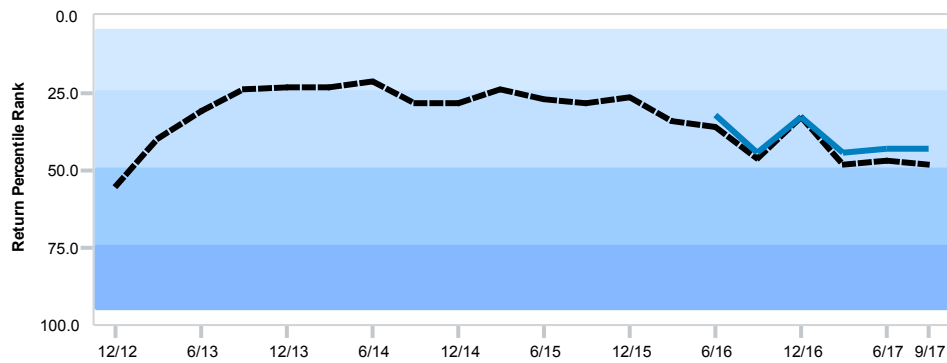
**Risk and Return 3 Years**



**Risk and Return 5 Years**

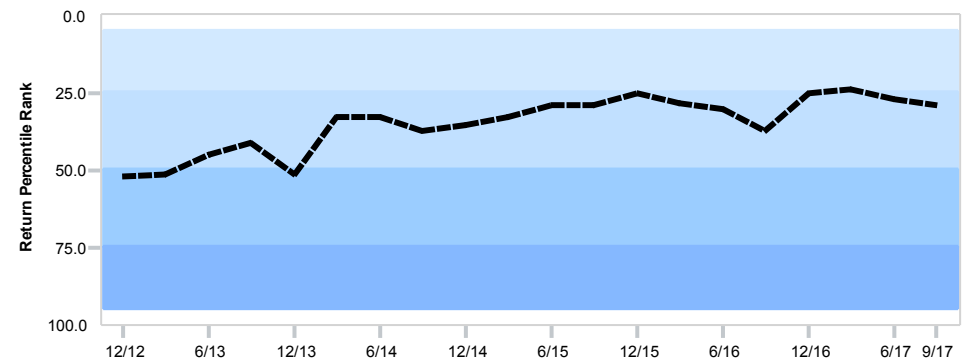


**3 Year Rolling Percentile Rank IM International Equity (MF)**



	Total Period	5-25 Count	25-Median Count	Median-75 Count	75-95 Count
Investment	6	0 (0%)	6 (100%)	0 (0%)	0 (0%)
Index	20	5 (25%)	14 (70%)	1 (5%)	0 (0%)

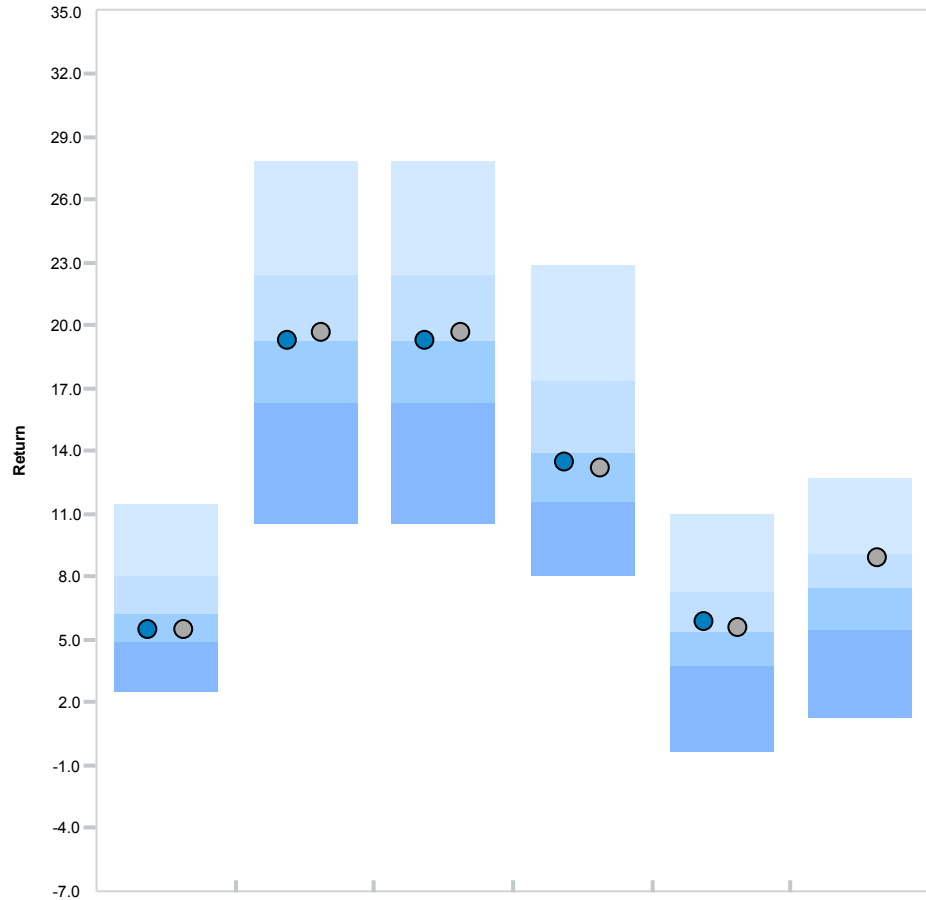
**5 Year Rolling Percentile Rank IM International Equity (MF)**



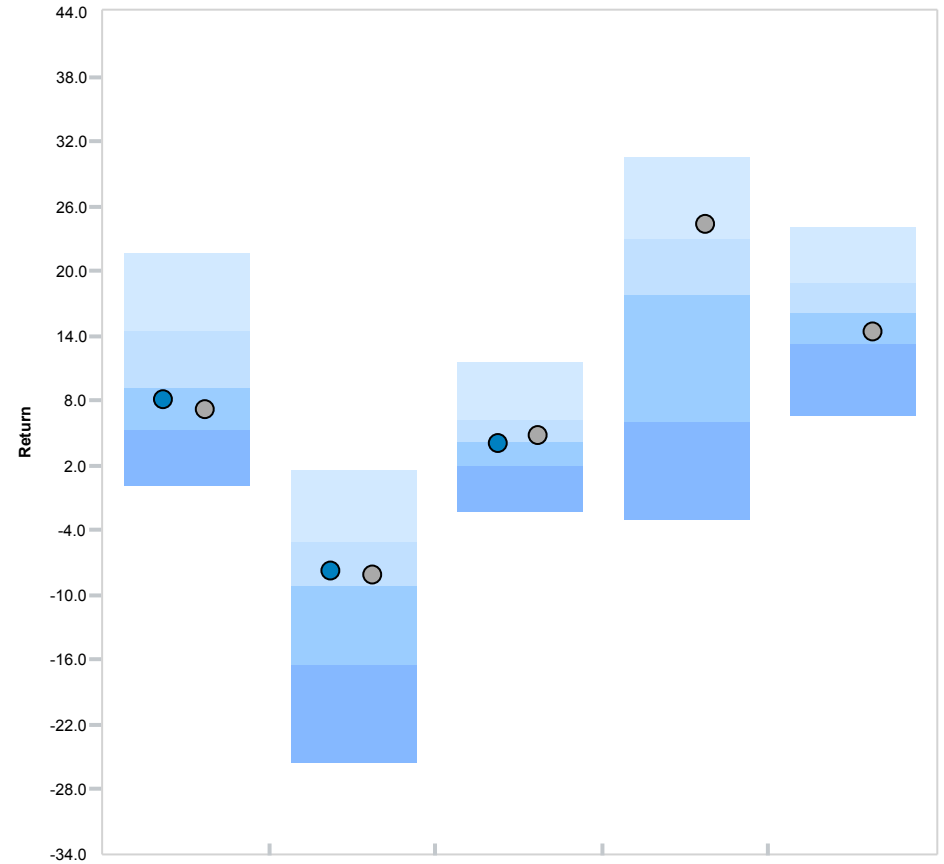
	Total Period	5-25 Count	25-Median Count	Median-75 Count	75-95 Count
Investment	0	0	0	0	0
Index	20	3 (15%)	14 (70%)	3 (15%)	0 (0%)



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



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



	QTR	FYTD	1 YR	2 YR	3 YR	5 YR
Investment	5.49 (65)	19.25 (52)	19.25 (52)	13.50 (55)	5.86 (43)	N/A
Index	5.47 (65)	19.65 (48)	19.65 (48)	13.18 (58)	5.53 (48)	8.87 (29)
Median	6.22	19.33	19.33	13.95	5.37	7.50

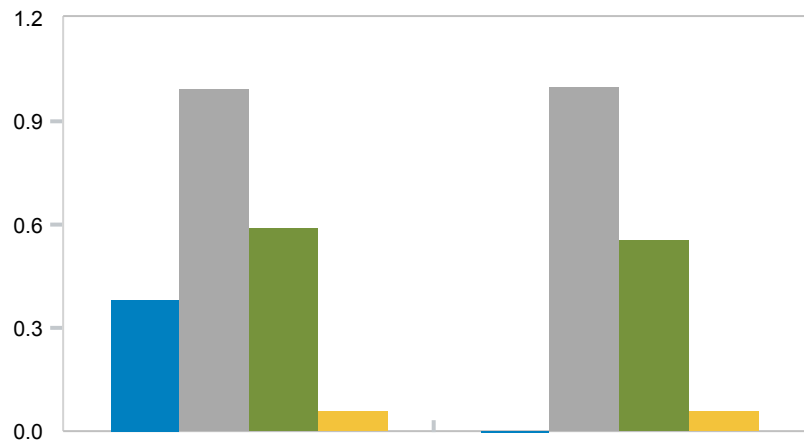
	4 Quarters Ending Sep-2016	4 Quarters Ending Sep-2015	4 Quarters Ending Sep-2014	4 Quarters Ending Sep-2013	4 Quarters Ending Sep-2012
Investment	8.03 (58)	-7.90 (43)	4.01 (53)	N/A	N/A
Index	7.06 (64)	-8.27 (45)	4.70 (44)	24.29 (19)	14.33 (66)
Median	9.22	-9.18	4.24	17.79	16.17

Comparative Performance

	1 Qtr Ending Jun-2017	1 Qtr Ending Mar-2017	1 Qtr Ending Dec-2016	1 Qtr Ending Sep-2016	1 Qtr Ending Jun-2016	1 Qtr Ending Mar-2016
Investment	6.39 (51)	7.82 (66)	-1.46 (26)	6.40 (56)	-0.30 (53)	-2.02 (63)
Index	6.37 (51)	7.39 (76)	-0.68 (18)	6.50 (53)	-1.19 (67)	-2.88 (76)
Median	6.40	8.68	-3.85	6.61	-0.14	-0.68

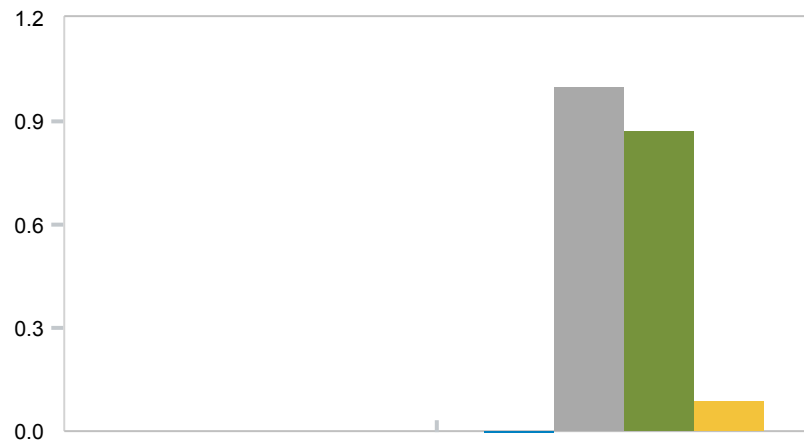


**Risk / Reward Historical Statistics 3 Years Ending September 30, 2017**



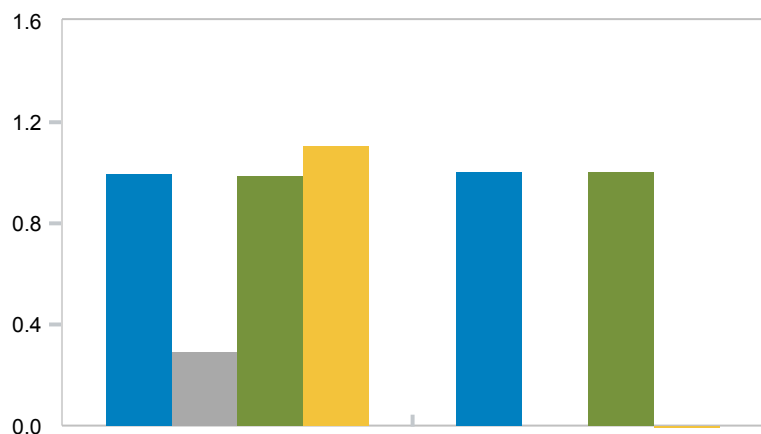
	Vanguard Intl Eq (VTMGX)	MSCI EAFE Index
Alpha	0.38	0.00
Beta	0.99	1.00
Sharpe Ratio	0.59	0.56
Treynor Ratio	0.06	0.06

**Risk / Reward Historical Statistics 5 Years Ending September 30, 2017**



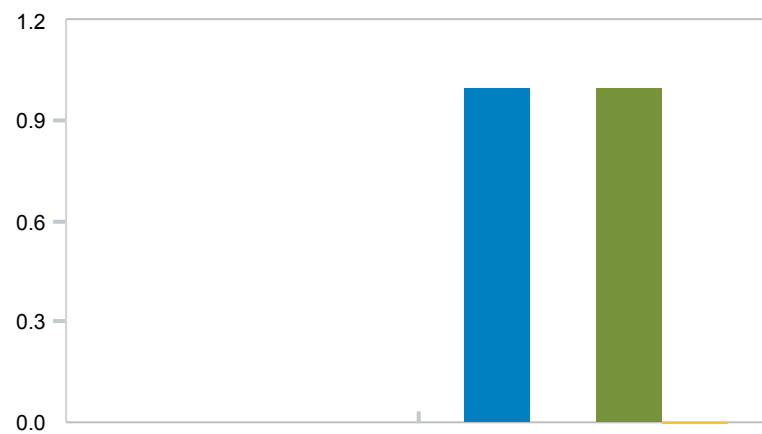
	Vanguard Intl Eq (VTMGX)	MSCI EAFE Index
Alpha	N/A	0.00
Beta	N/A	1.00
Sharpe Ratio	N/A	0.87
Treynor Ratio	N/A	0.09

**Benchmark Relative Historical Statistics 3 Years Ending September 30, 2017**



	Vanguard Intl Eq (VTMGX)	MSCI EAFE Index
Actual Correlation	0.99	1.00
Information Ratio	0.29	N/A
R-Squared	0.99	1.00
Tracking Error	1.11	0.00

**Benchmark Relative Historical Statistics 5 Years Ending September 30, 2017**



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

Benchmark: MSCI EAFE Index



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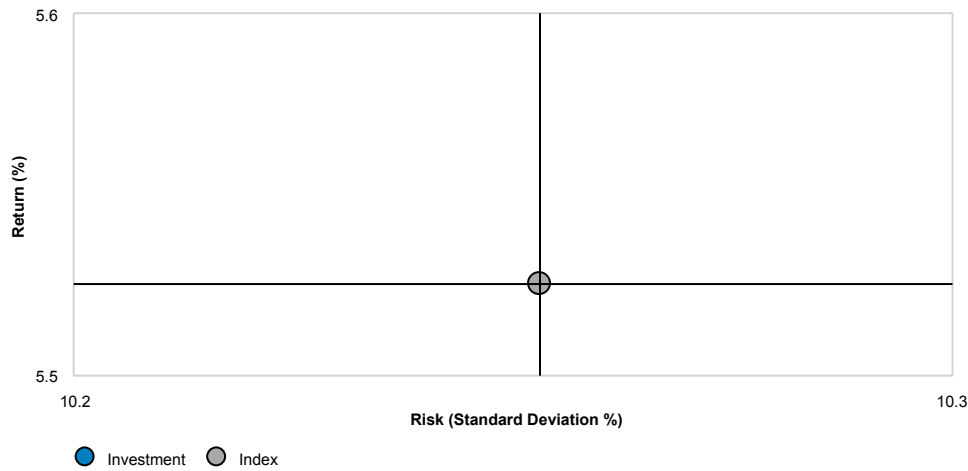
**Historical Statistics 3 Years**

	Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters
Investment	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Index	5.53	10.25	0.56	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	8.87	10.30	0.87	100.00	13	100.00	7

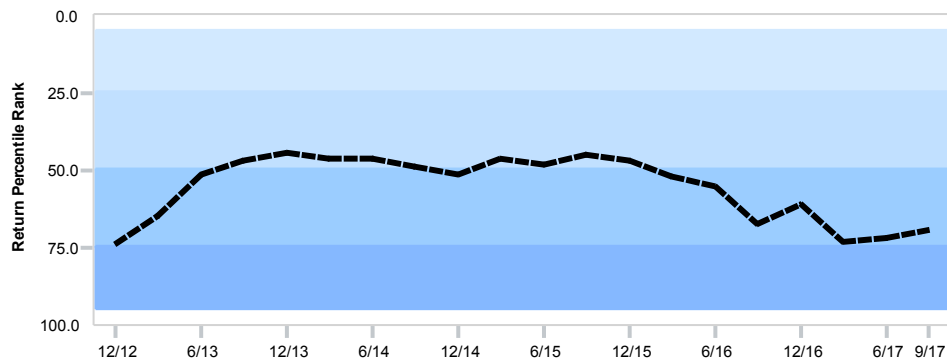
**Risk and Return 3 Years**



**Risk and Return 5 Years**

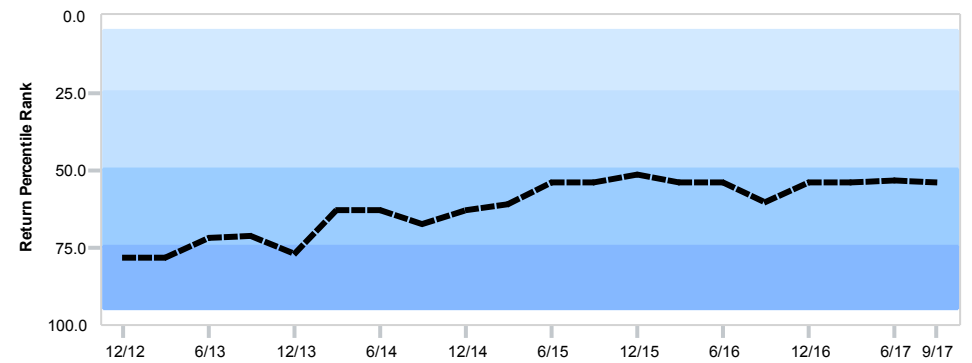


**3 Year Rolling Percentile Rank IM International Equity (SA+CF)**



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

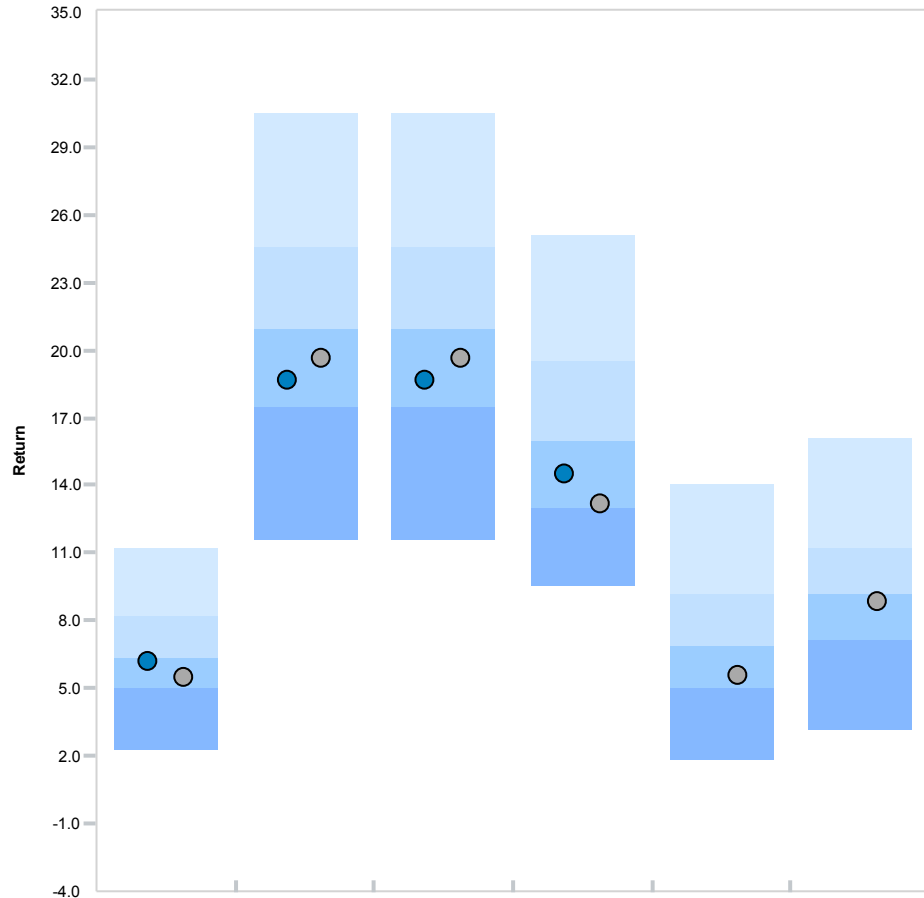
**5 Year Rolling Percentile Rank IM International Equity (SA+CF)**



	Total Period	5-25 Count	25-Median Count	Median-75 Count	75-95 Count
Investment	0	0	0	0	0
Index	20	0 (0%)	0 (0%)	17 (85%)	3 (15%)

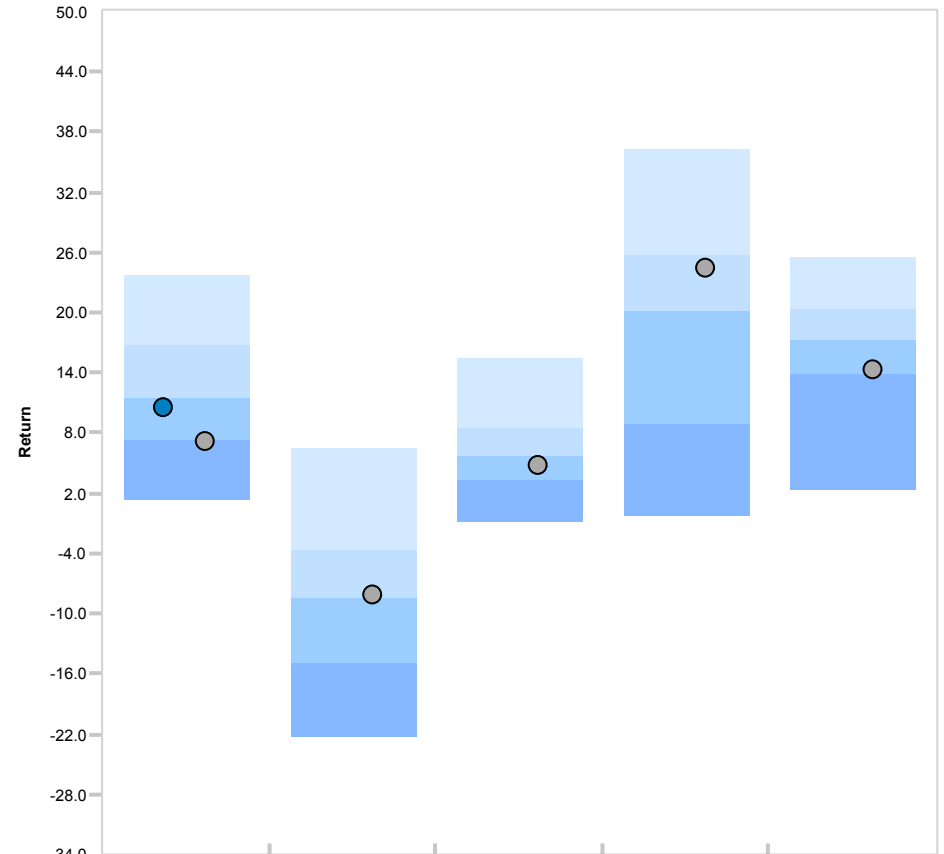


Plan Sponsor Peer Group Analysis vs. IM International Equity (SA+CF)



	QTR	FYTD	1 YR	2 YR	3 YR	5 YR
Investment	6.19 (54)	18.60 (69)	18.60 (69)	14.45 (64)	N/A	N/A
Index	5.47 (67)	19.65 (60)	19.65 (60)	13.18 (74)	5.53 (69)	8.87 (54)
Median	6.38	20.94	20.94	16.01	6.85	9.18

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



	4 Quarters Ending Sep-2016	4 Quarters Ending Sep-2015	4 Quarters Ending Sep-2014	4 Quarters Ending Sep-2013	4 Quarters Ending Sep-2012
Investment	10.45 (56)	N/A	N/A	N/A	N/A
Index	7.06 (76)	-8.27 (50)	4.70 (62)	24.29 (33)	14.33 (72)
Median	11.48	-8.29	5.79	20.15	17.31

Comparative Performance

	1 Qtr Ending Jun-2017	1 Qtr Ending Mar-2017	1 Qtr Ending Dec-2016	1 Qtr Ending Sep-2016	1 Qtr Ending Jun-2016	1 Qtr Ending Mar-2016
Investment	6.71 (51)	9.03 (48)	-4.00 (64)	8.19 (38)	-0.77 (60)	-2.22 (70)
Index	6.37 (59)	7.39 (76)	-0.68 (28)	6.50 (65)	-1.19 (65)	-2.88 (78)
Median	6.74	8.84	-2.91	7.36	-0.09	-0.36



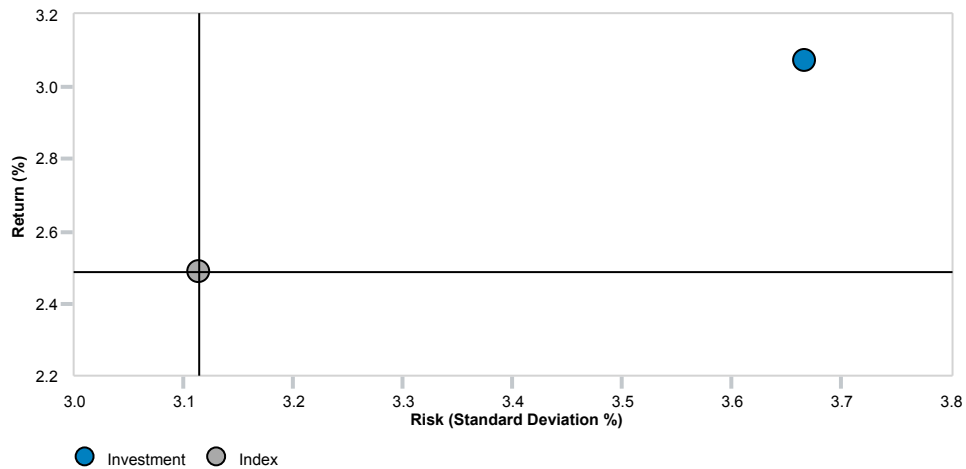
**Historical Statistics 3 Years**

	Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters
Investment	3.07	3.67	0.77	119.29	9	112.75	3
Index	2.49	3.11	0.72	100.00	9	100.00	3

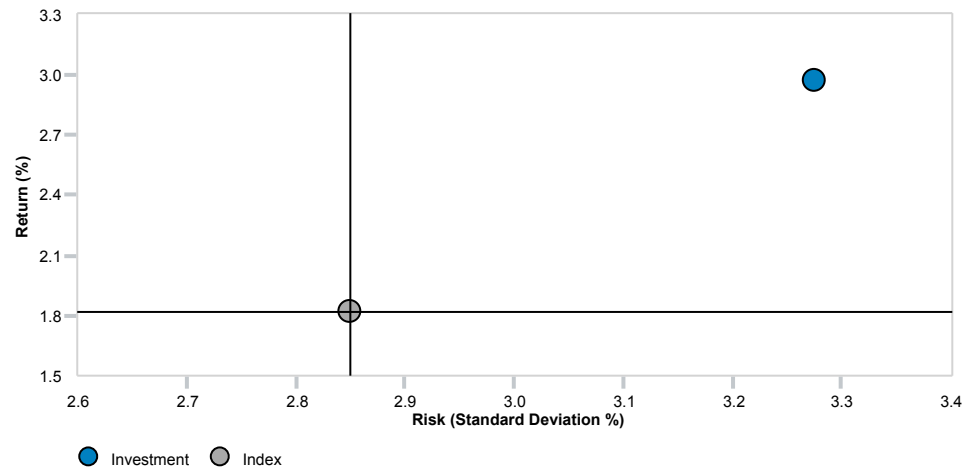
**Historical Statistics 5 Years**

	Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters
Investment	2.97	3.28	0.85	128.89	16	88.75	4
Index	1.82	2.85	0.58	100.00	14	100.00	6

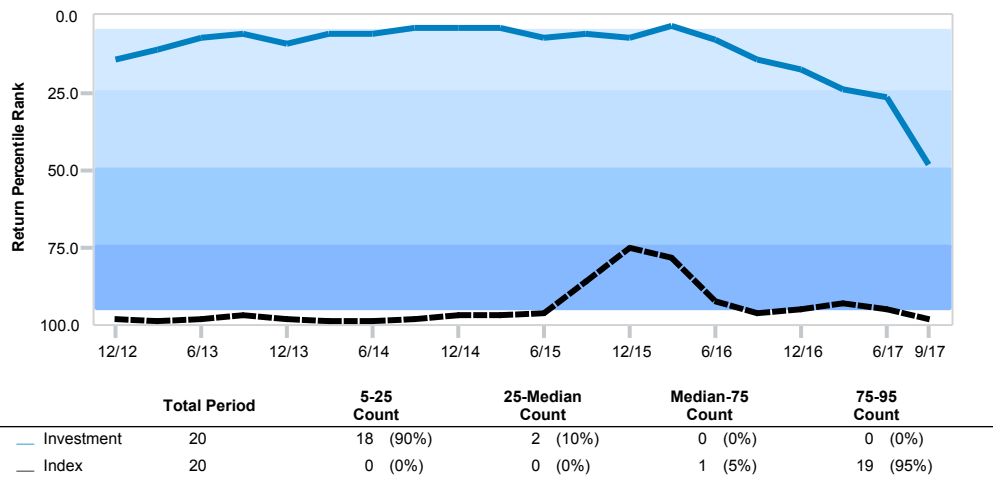
**Risk and Return 3 Years**



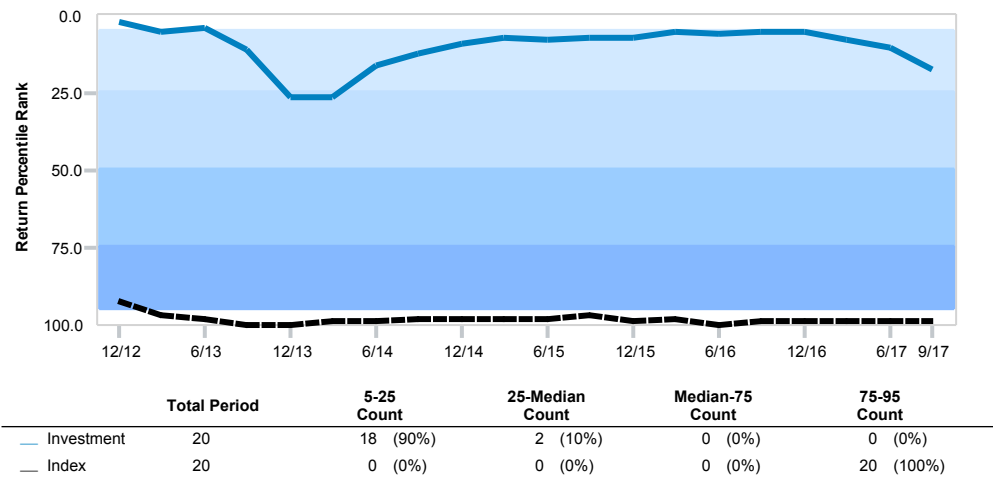
**Risk and Return 5 Years**



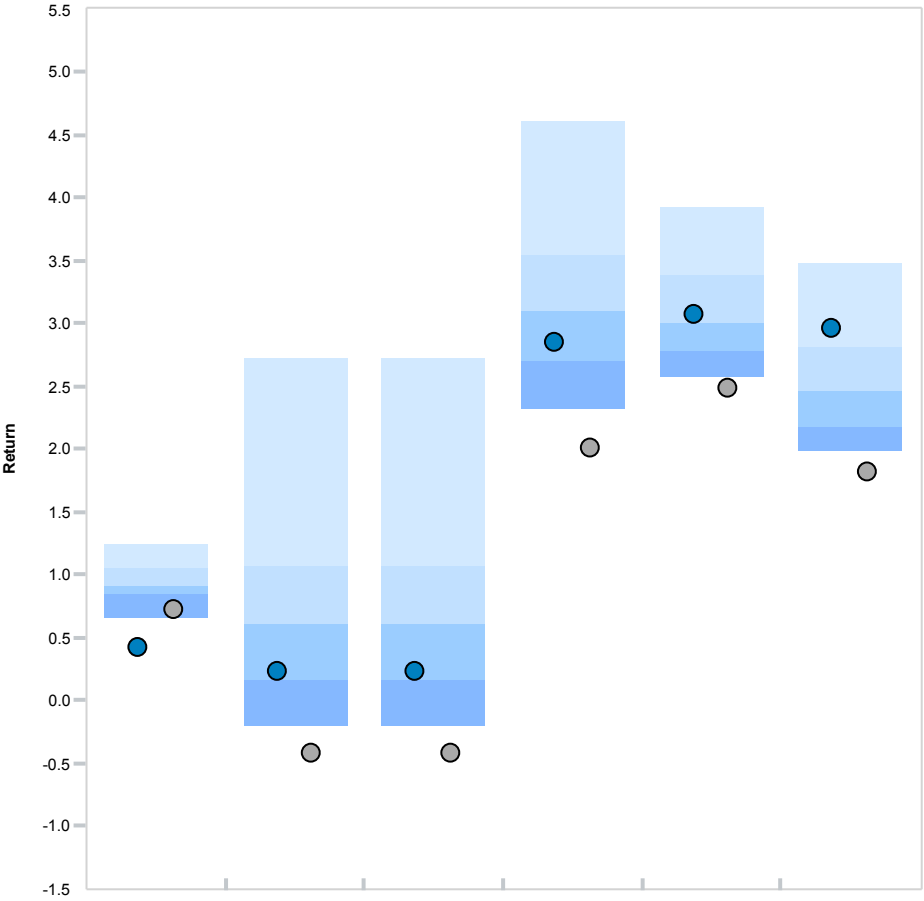
**3 Year Rolling Percentile Rank IM U.S. Broad Market Core Fixed Income (SA+CF)**



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

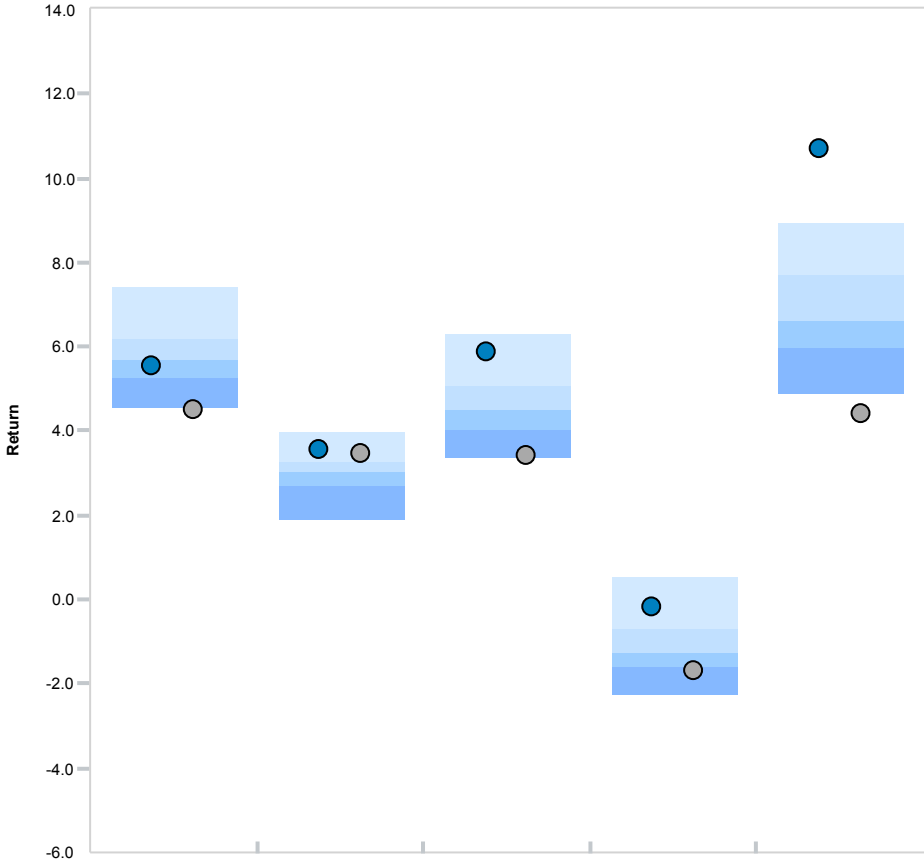


**Plan Sponsor Peer Group Analysis vs. IM U.S. Broad Market Core Fixed Income (SA+CF)**



	QTR	FYTD	1 YR	2 YR	3 YR	5 YR
● Investment	0.43 (100)	0.23 (71)	0.23 (71)	2.85 (67)	3.07 (48)	2.97 (17)
● Index	0.72 (93)	-0.42 (100)	-0.42 (100)	2.01 (99)	2.49 (98)	1.82 (99)
Median	0.92	0.60	0.60	3.10	3.01	2.46

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



	4 Quarters Ending Sep-2016	4 Quarters Ending Sep-2015	4 Quarters Ending Sep-2014	4 Quarters Ending Sep-2013	4 Quarters Ending Sep-2012
● Investment	5.53 (62)	3.53 (11)	5.87 (10)	-0.17 (13)	10.68 (2)
● Index	4.50 (96)	3.44 (17)	3.39 (95)	-1.68 (79)	4.40 (98)
Median	5.66	3.02	4.50	-1.27	6.61

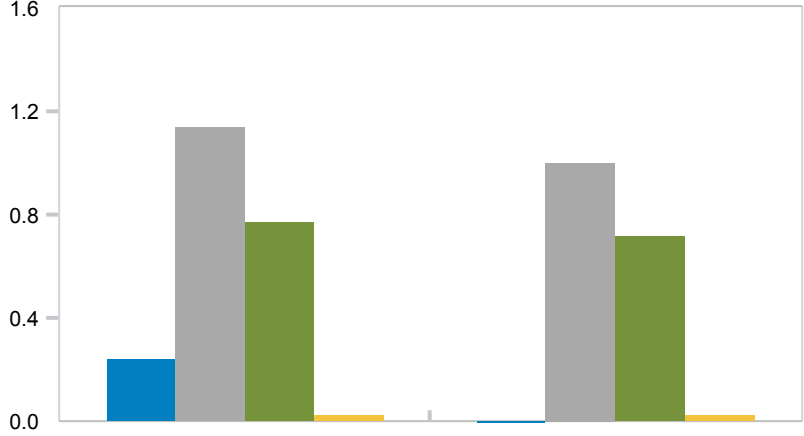
**Comparative Performance**

	1 Qtr Ending Jun-2017	1 Qtr Ending Mar-2017	1 Qtr Ending Dec-2016	1 Qtr Ending Sep-2016	1 Qtr Ending Jun-2016	1 Qtr Ending Mar-2016
Investment	1.47 (69)	0.98 (44)	-2.59 (27)	0.18 (98)	2.13 (83)	3.39 (6)
Index	1.25 (97)	0.67 (94)	-3.01 (83)	0.23 (97)	1.90 (94)	2.84 (76)
Median	1.54	0.92	-2.80	0.69	2.34	3.02



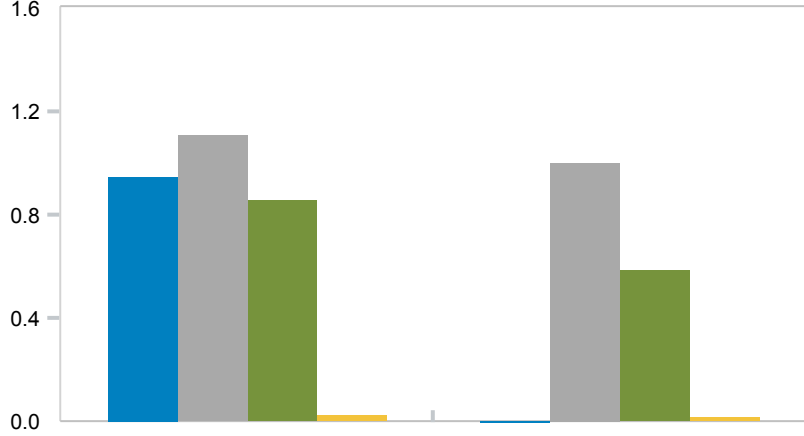


**Risk / Reward Historical Statistics 3 Years Ending September 30, 2017**



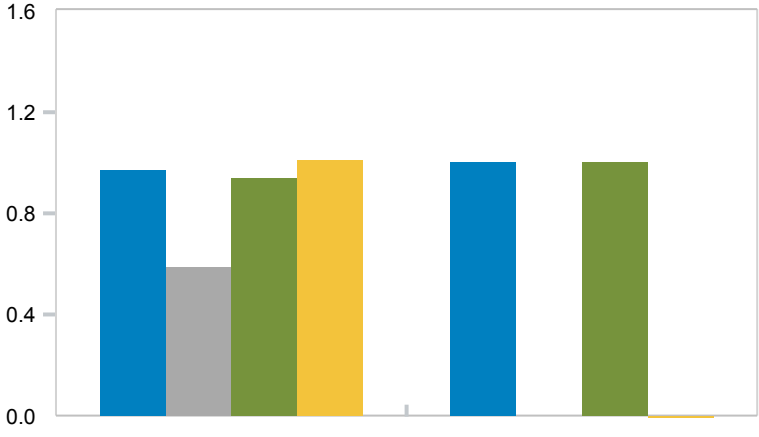
	GHA A+ Fixed Income	Blmbg. Barc. U.S. Aggregate: A+
Alpha	0.24	0.00
Beta	1.14	1.00
Sharpe Ratio	0.77	0.72
Treynor Ratio	0.02	0.02

**Risk / Reward Historical Statistics 5 Years Ending September 30, 2017**



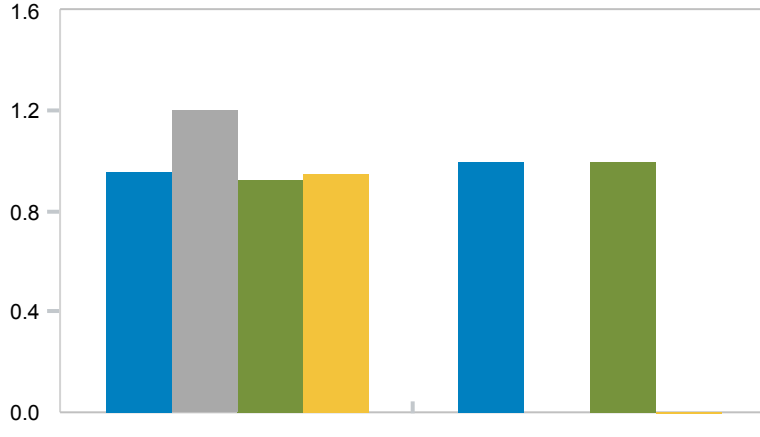
	GHA A+ Fixed Income	Blmbg. Barc. U.S. Aggregate: A+
Alpha	0.95	0.00
Beta	1.10	1.00
Sharpe Ratio	0.85	0.58
Treynor Ratio	0.03	0.02

**Benchmark Relative Historical Statistics 3 Years Ending September 30, 2017**



	GHA A+ Fixed Income	Blmbg. Barc. U.S. Aggregate: A+
Actual Correlation	0.97	1.00
Information Ratio	0.59	N/A
R-Squared	0.94	1.00
Tracking Error	1.01	0.00

**Benchmark Relative Historical Statistics 5 Years Ending September 30, 2017**



	GHA A+ Fixed Income	Blmbg. Barc. U.S. Aggregate: A+
Actual Correlation	0.96	1.00
Information Ratio	1.20	N/A
R-Squared	0.92	1.00
Tracking Error	0.95	0.00

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



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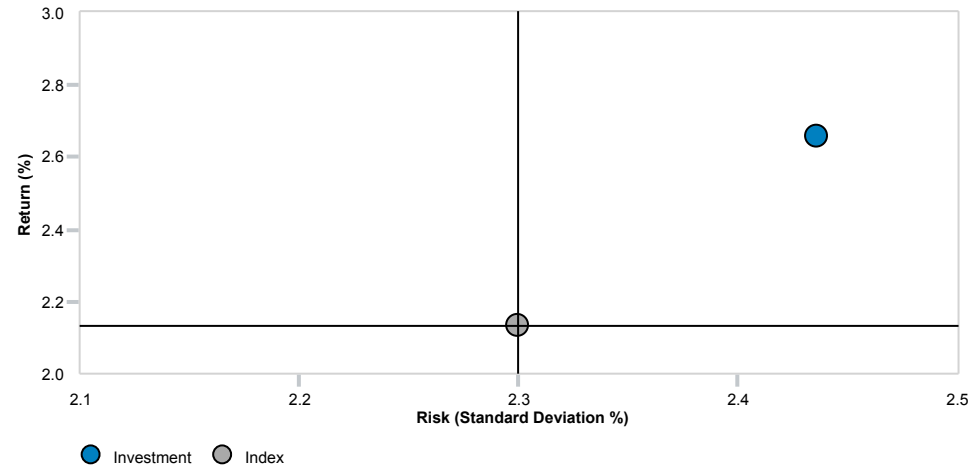
Historical Statistics 3 Years

	Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters
Investment	2.65	2.44	0.97	114.28	9	95.47	3
Index	2.13	2.30	0.81	100.00	9	100.00	3

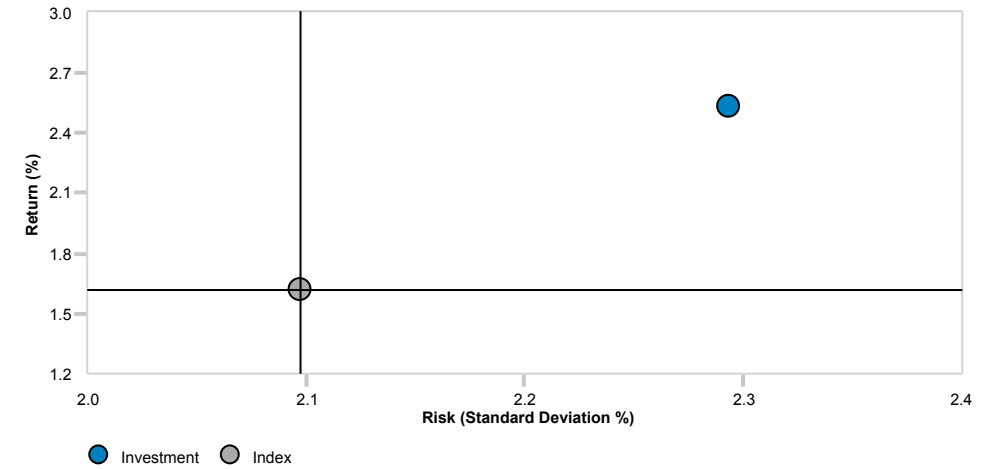
Historical Statistics 5 Years

	Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters
Investment	2.53	2.29	1.02	123.90	16	73.15	4
Index	1.61	2.10	0.69	100.00	14	100.00	6

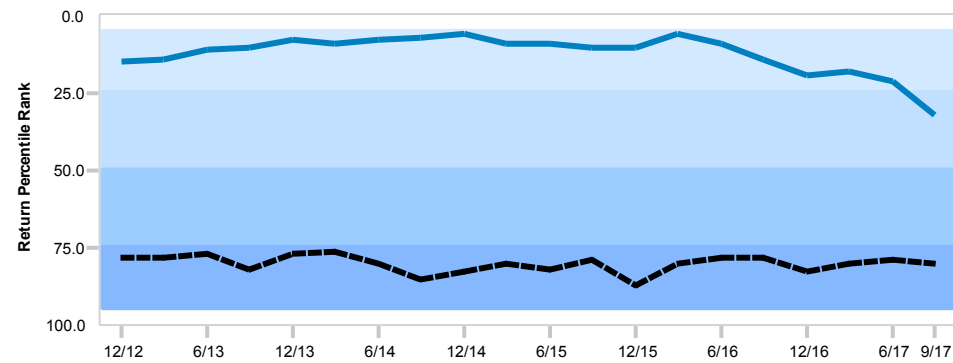
Risk and Return 3 Years



Risk and Return 5 Years

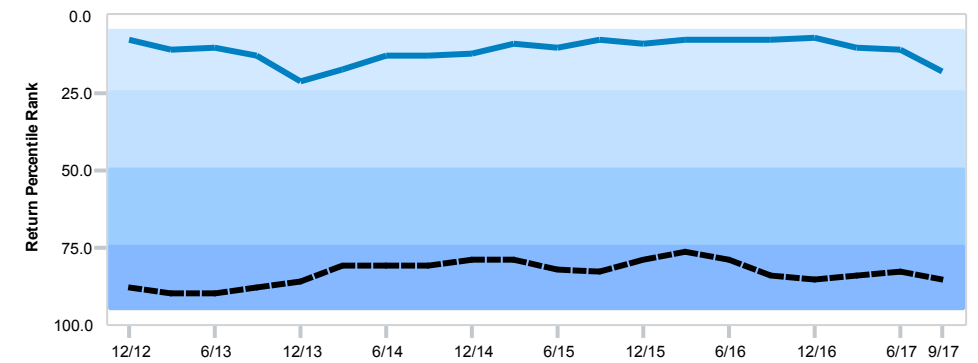


3 Year Rolling Percentile Rank IM U.S. Intermediate Duration (SA+CF)



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

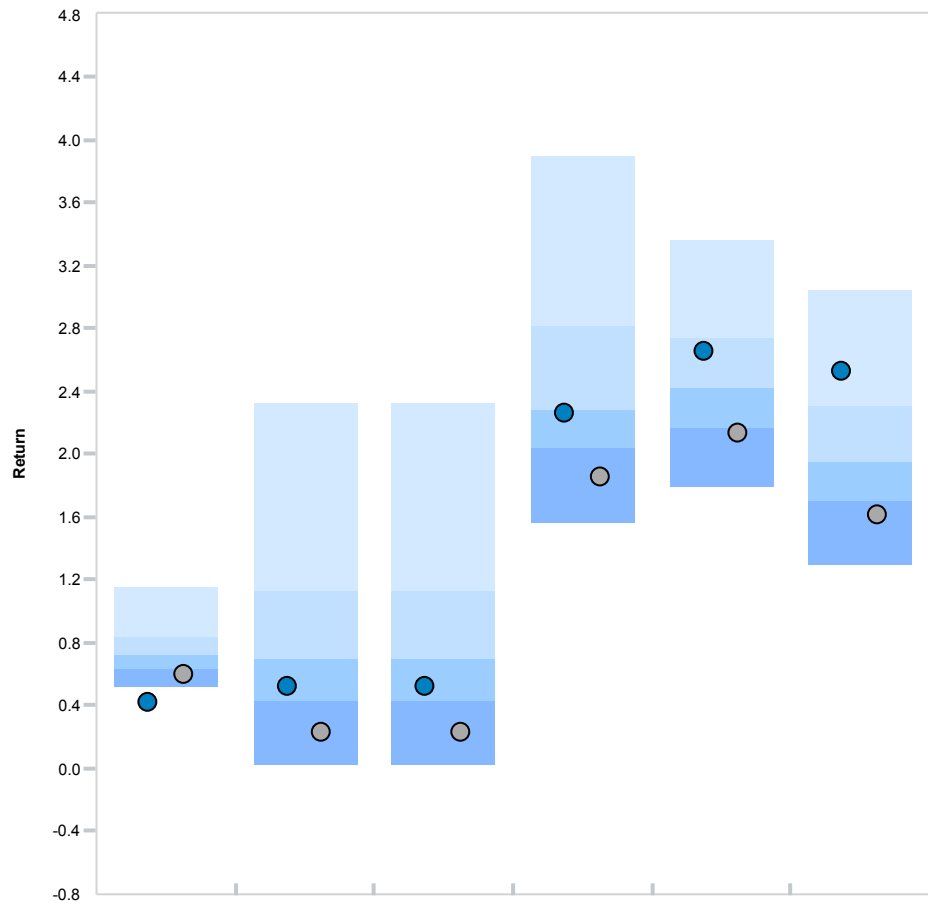
5 Year Rolling Percentile Rank IM U.S. Intermediate Duration (SA+CF)



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

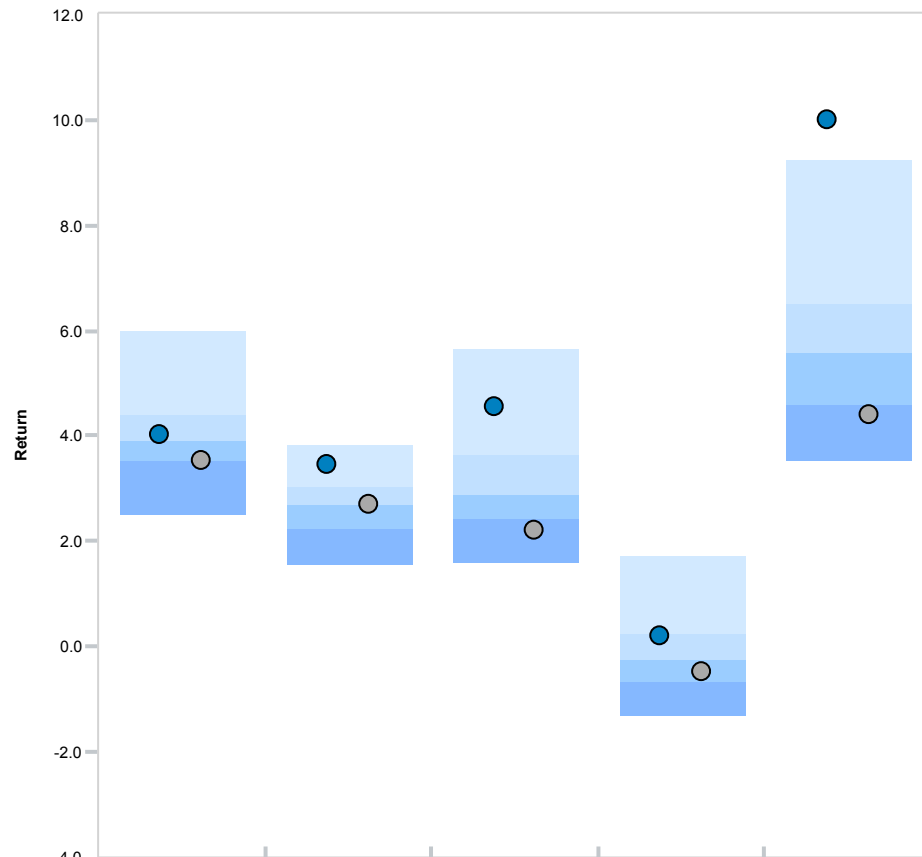


Plan Sponsor Peer Group Analysis vs. IM U.S. Intermediate Duration (SA+CF)



	QTR	FYTD	1 YR	2 YR	3 YR	5 YR
● Investment	0.42 (98)	0.52 (68)	0.52 (68)	2.26 (53)	2.65 (32)	2.53 (18)
● Index	0.60 (83)	0.23 (88)	0.23 (88)	1.86 (80)	2.13 (80)	1.61 (85)
Median	0.73	0.70	0.70	2.28	2.42	1.96

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



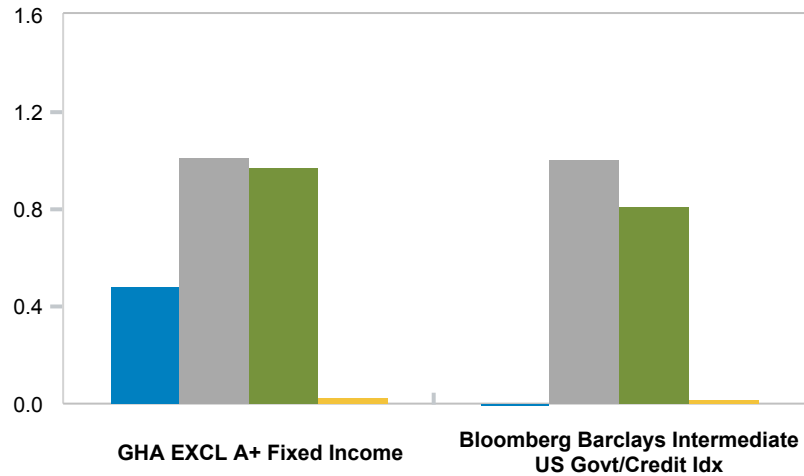
	4 Quarters Ending Sep-2016	4 Quarters Ending Sep-2015	4 Quarters Ending Sep-2014	4 Quarters Ending Sep-2013	4 Quarters Ending Sep-2012
● Investment	4.03 (42)	3.45 (8)	4.56 (11)	0.18 (27)	9.98 (3)
● Index	3.52 (76)	2.68 (52)	2.20 (84)	-0.50 (66)	4.40 (81)
Median	3.91	2.70	2.89	-0.27	5.56

Comparative Performance

	1 Qtr Ending Jun-2017	1 Qtr Ending Mar-2017	1 Qtr Ending Dec-2016	1 Qtr Ending Sep-2016	1 Qtr Ending Jun-2016	1 Qtr Ending Mar-2016
Investment	0.85 (85)	0.79 (58)	-1.52 (25)	0.26 (64)	1.38 (78)	2.97 (2)
Index	0.94 (70)	0.78 (59)	-2.07 (82)	0.16 (77)	1.59 (50)	2.45 (34)
Median	1.02	0.81	-1.84	0.38	1.58	2.34

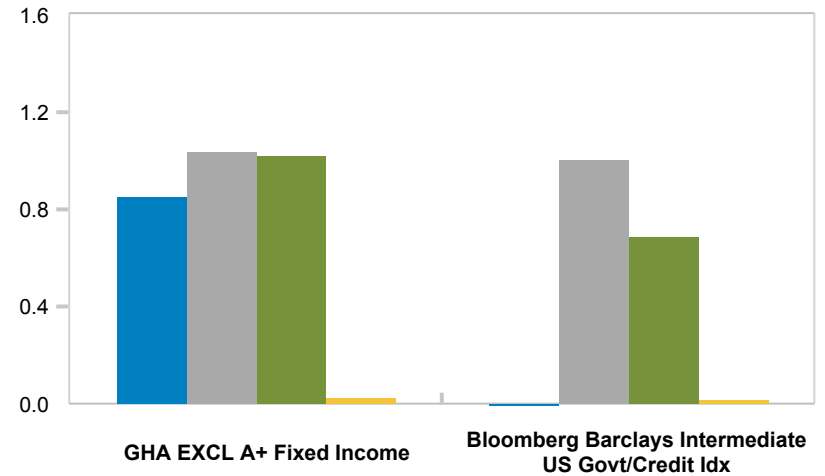


**Risk / Reward Historical Statistics 3 Years Ending September 30, 2017**



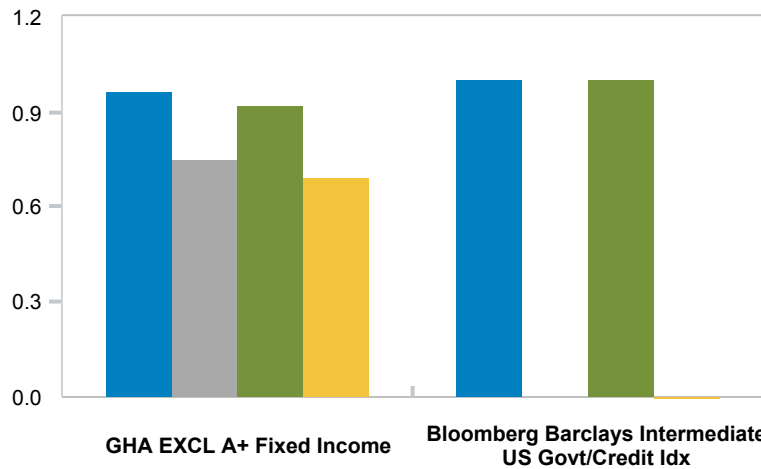
Alpha	0.49	0.00
Beta	1.02	1.00
Sharpe Ratio	0.97	0.81
Treynor Ratio	0.02	0.02

**Risk / Reward Historical Statistics 5 Years Ending September 30, 2017**



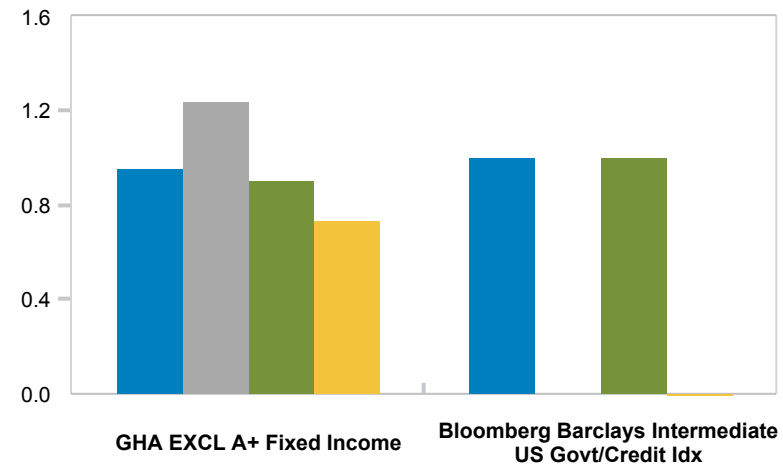
Alpha	0.85	0.00
Beta	1.04	1.00
Sharpe Ratio	1.02	0.69
Treynor Ratio	0.02	0.01

**Benchmark Relative Historical Statistics 3 Years Ending September 30, 2017**



Actual Correlation	0.96	1.00
Information Ratio	0.75	N/A
R-Squared	0.92	1.00
Tracking Error	0.69	0.00

**Benchmark Relative Historical Statistics 5 Years Ending September 30, 2017**



Actual Correlation	0.95	1.00
Information Ratio	1.24	N/A
R-Squared	0.90	1.00
Tracking Error	0.73	0.00

Benchmark: Bloomberg Barclays Intermediate US Govt/Credit Idx



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<b>Total Fund Historical Hybrid Composition</b>			
<b>Allocation Mandate</b>	<b>Weight (%)</b>	<b>Allocation Mandate</b>	<b>Weight (%)</b>
<b>Jan-1998</b>		<b>Jul-2010</b>	
S&P 500 Index	60.00	Russell 1000 Value Index	15.50
BofA Merrill Lynch Gov't/ Corp Master	40.00	Bloomberg Barclays Intermediate US Govt/Credit Idx	20.00
<b>Jan-2000</b>		S&P MidCap 400 Index	10.00
S&P 500 Index	50.00	Russell 2500 Index	10.00
Bloomberg Barclays U.S. Aggregate Index	40.00	Russell 1000 Growth Index	15.50
MSCI EAFE Index	10.00	MSCI EAFE Index	9.00
<b>Apr-2004</b>		Blmbg. Barc. U.S. Aggregate: A+	20.00
S&P 500 Index	50.00	<b>Jul-2017</b>	
Bloomberg Barclays 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
<b>Jan-2007</b>		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	Blmbg. Barc. U.S. Aggregate: A+	16.00
<b>Jan-2008</b>		NCREIF Fund Index-Open End Diversified Core (EW)	8.00
S&P 500 Index	40.00	<b>Apr-2008</b>	
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
<b>Apr-2009</b>		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	<b>Apr-2009</b>	
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



**Benchmark History**  
**Investment Policy Benchmarks**  
As of September 30, 2017

<b>Total Equity Historical Hybrid Composition</b>	
<b>Allocation Mandate</b>	<b>Weight (%)</b>
<b>Jan-1998</b>	
S&P 500 Index	100.00
<b>Jan-2000</b>	
S&P 500 Index	83.30
MSCI EAFE Index	16.70
<b>Apr-2004</b>	
S&P 500 Index	83.30
Russell 2000 Value Index	16.70
<b>Jan-2008</b>	
S&P 500 Index	66.60
Russell 2000 Value Index	16.70
S&P MidCap 400 Index	16.70
<b>Apr-2008</b>	
Russell 1000 Growth Index	33.30
Russell 2000 Value Index	16.70
S&P MidCap 400 Index	16.70
Russell 1000 Value Index	33.30
<b>Jul-2010</b>	
Russell 1000 Growth Index	25.83
Russell 2500 Index	16.67
S&P MidCap 400 Index	16.67

<b>Total Fixed Income Historical Hybrid Composition</b>	
<b>Allocation Mandate</b>	<b>Weight (%)</b>
<b>Jan-1998</b>	
BofA Merrill Lynch Gov't/ Corp Master	100.00
<b>Jan-2000</b>	
Bloomberg Barclays U.S. Aggregate Index	100.00
<b>Jan-2007</b>	
Bloomberg Barclays Intermediate US Govt/Credit Idx	60.00
Blmbg. Barc. U.S. Corporate A+ Index	40.00
<b>Apr-2008</b>	
Bloomberg Barclays Intermediate US Govt/Credit Idx	62.50
Blmbg. Barc. U.S. Corporate A+ Index	37.50
<b>Apr-2009</b>	
Bloomberg Barclays Intermediate US Govt/Credit Idx	50.00
Blmbg. Barc. U.S. Aggregate: A+	50.00

<b>GHA Balanced Historical Hybrid Composition</b>	
<b>Allocation Mandate</b>	<b>Weight (%)</b>
<b>Jan-1998</b>	
BofA Merrill Lynch Gov't/ Corp Master	70.00
Russell 1000 Growth Index	30.00
<b>Oct-1999</b>	
BofA Merrill Lynch Gov't/ Corp Master	50.00
Russell 1000 Growth Index	50.00
<b>Apr-2003</b>	
Bloomberg Barclays Intermediate US Govt/Credit Idx	45.00
Russell 1000 Growth Index	55.00
<b>Apr-2008</b>	
Bloomberg Barclays Intermediate US Govt/Credit Idx	66.67
Russell 1000 Growth Index	33.33
<b>Apr-2009</b>	
Bloomberg Barclays Intermediate US Govt/Credit Idx	50.00
Russell 1000 Growth Index	50.00
<b>Jul-2010</b>	
Bloomberg Barclays Intermediate US Govt/Credit Idx	56.00
Russell 1000 Growth Index	44.00



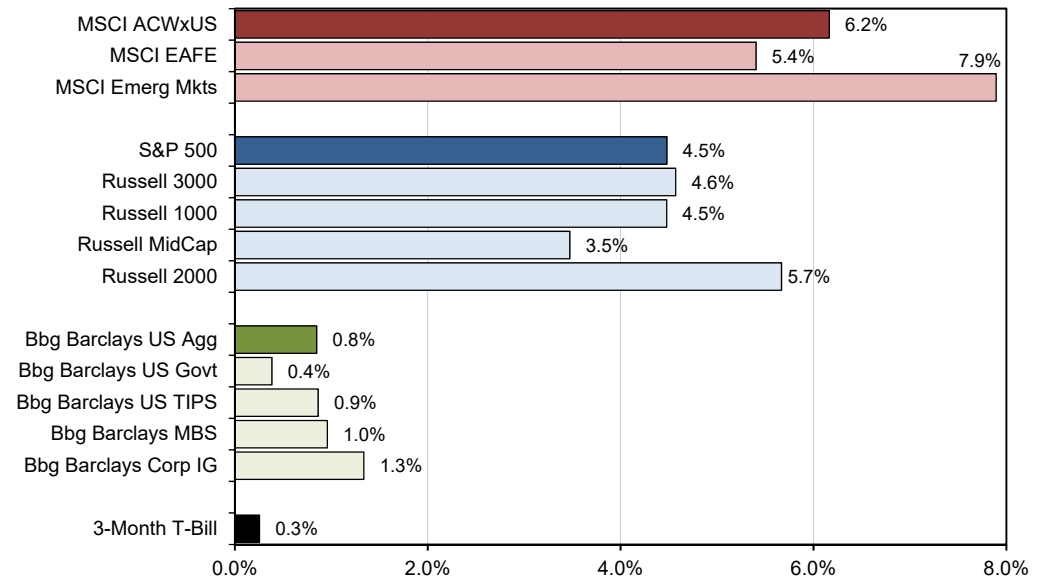


# 3rd Quarter 2017 Market Environment

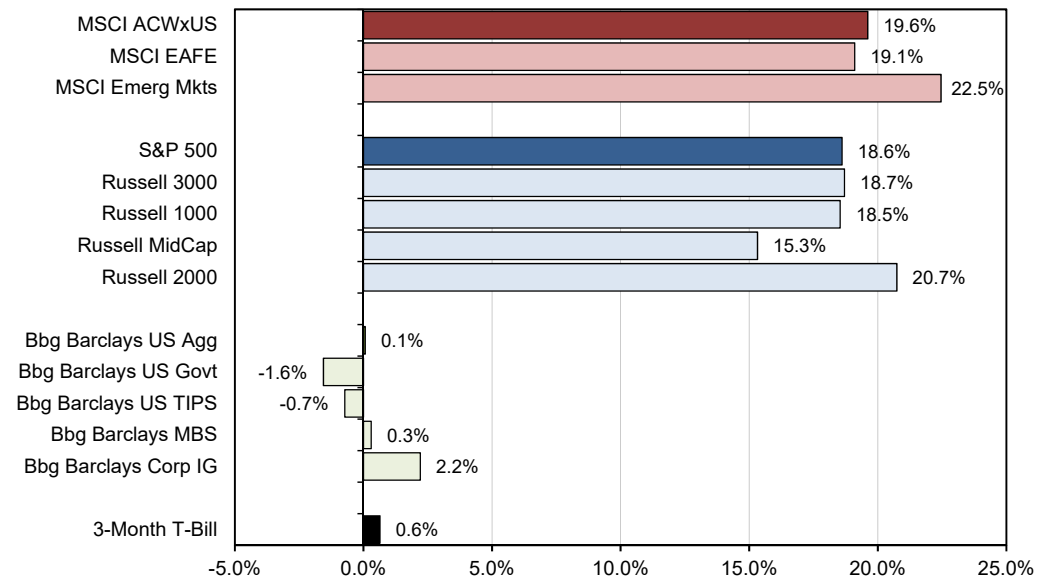


- Returns were positive for major equity and fixed income indices for the 3<sup>rd</sup> quarter of 2017. Broad domestic and international equity market performance was largely fueled by continued improvement in corporate earnings and macroeconomic data worldwide. Domestic equities trailed international indices during the quarter. While U.S. economic fundamentals and corporate earnings growth were viewed positively, market participants faced headwinds from increasing tension between the U.S. and North Korea, several major weather events and ongoing political concerns surrounding the pace of implementation of Trump administration expansive fiscal policy reforms. Despite these concerns, investor optimism remained high and many major domestic equity indices hit record levels during the quarter. Small cap equities outperformed large cap stocks for the quarter with the Russell 2000 Index returning 5.7% versus a 4.5% return for the S&P 500 Index. Small cap companies have also been the best performers domestically over the last 12 months, returning over 20%. While small cap equities lead the charge, all U.S. core market capitalization indices returned over 15% over the last year.
- International equity market benchmarks continued to outpace U.S. markets through the 3<sup>rd</sup> quarter of 2017 as both developed and emerging market international equities saw benefits from continued strength in global macroeconomic data, a weakening U.S. Dollar (USD) and ongoing accommodative global central bank policies. The improving economic fundamentals worldwide have led many international central banks to begin telegraphing an eventual reduction in stimulus going forward, with both the European Central Bank and the Bank of England expected to announce plans to reduce stimulus before year end. Emerging markets, which benefitted from a weakening USD and rising commodity prices during the period, continued their trend of outperformance relative to developed markets. The MSCI Emerging Market Index returned 7.9% for the quarter and a solid 22.5% for the 1-year period. While weaker by comparison, the developed market MSCI EAFE Index also posted robust performance, returning 5.4% for the quarter and 19.1% for the year.
- The yield curve continued to flatten through the 3<sup>rd</sup> quarter of 2017 as interest rates rose slightly from the prior quarter, but with greater magnitude in short-term maturities. The Federal Reserve announced that its plan to systematically shrink the size of its balance sheet would begin in October. Broad fixed income indices posted positive results with the bellwether Bloomberg Barclays U.S. Aggregate Index returning 0.8% for the quarter. Benefitting from tightening credit spreads, corporate credit has been the best performer among the investment grade sectors with the Bloomberg Barclays U.S. Corporate Investment Grade Index returning 1.3% and 2.2% over the quarter and 1-year period respectively.

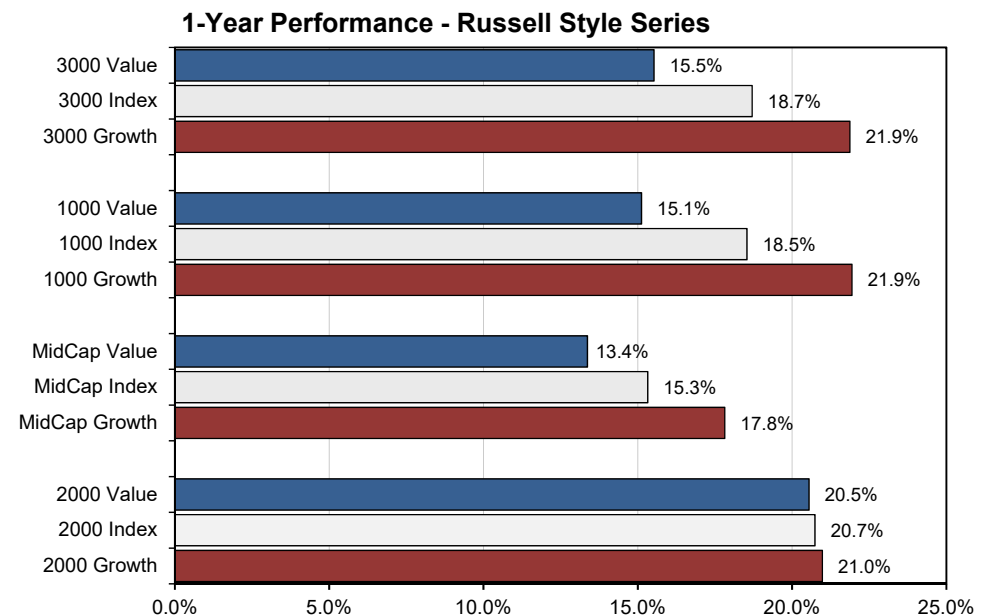
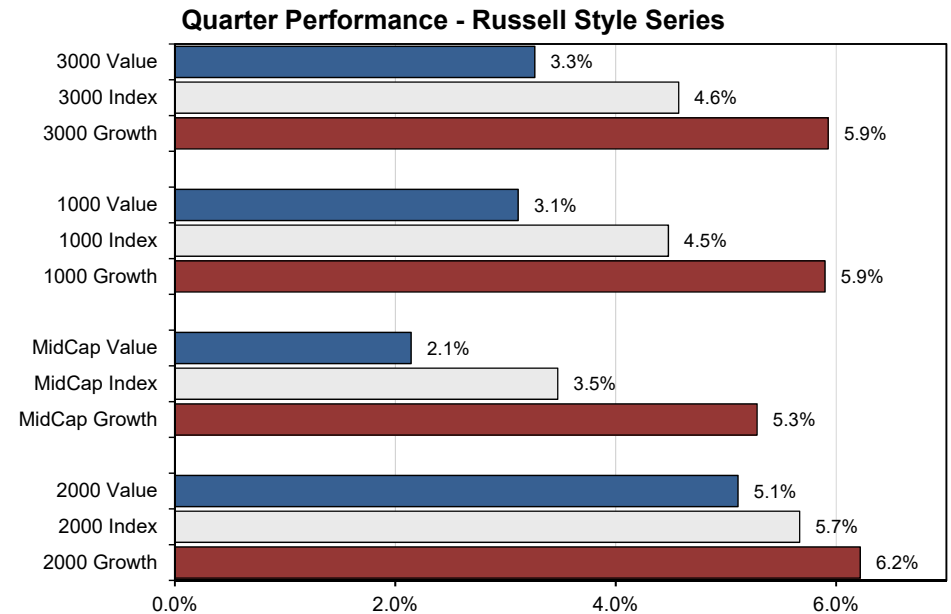
### Quarter Performance



### 1-Year Performance



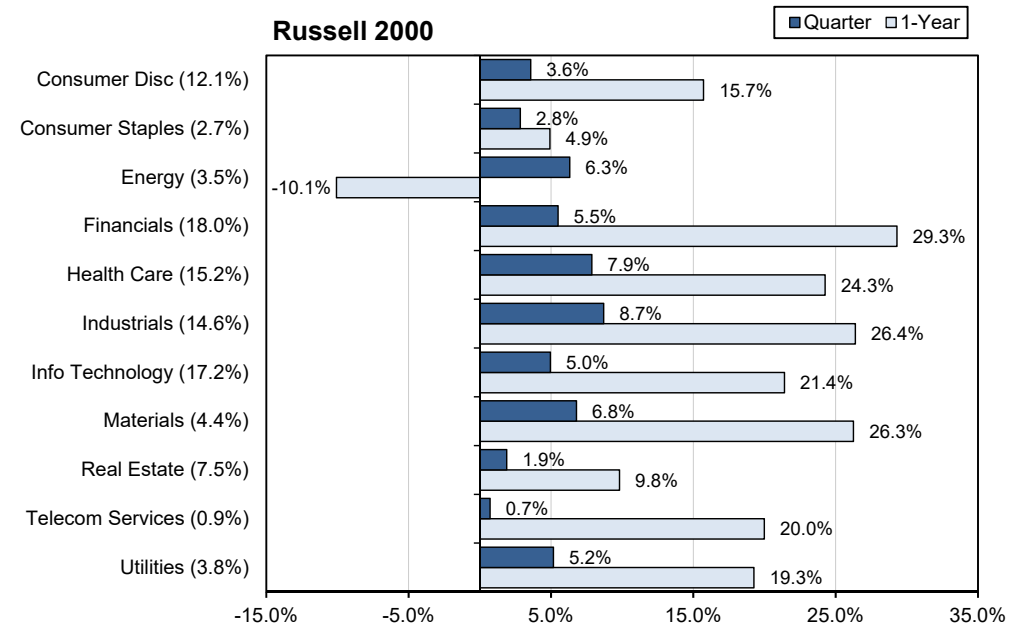
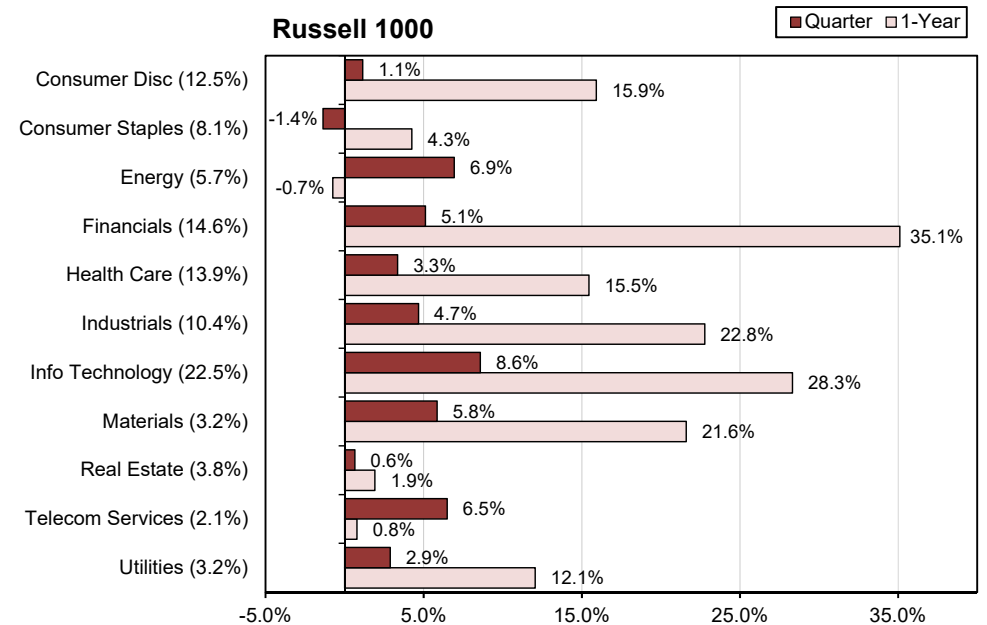
- Despite political gridlock in Washington, increased aggression between the U.S. and North Korea and several major weather events, including three hurricanes that caused catastrophic damage to Texas, Florida and Puerto Rico, domestic equity prices pushed higher during the 3<sup>rd</sup> quarter. U.S. equity index returns were positive across the style and capitalization spectrum for the 3<sup>rd</sup> quarter and trailing 1-year period. Encouraging economic data continued to facilitate gains in U.S. equity markets as positive trends in GDP, consumer and business sentiment, corporate earnings and employment continued throughout the period. Over the past twelve months, there has only been one instance of a negative quarterly return being posted by the Russell market cap and style indices, which was a -0.13% return by the Russell 2000 Value Index during 1Q 2017.
- Small cap stocks were the best performing capitalization segment across the spectrum for the 3<sup>rd</sup> quarter, bucking a year-to-date trend of large cap outperformance. The small cap Russell 2000 Index posted a 5.7% return for the period. While small cap stocks were the best performers, large and mid cap indices also posted solid returns. Interestingly, the returns for the large cap Russell 1000 Index outperformed the Russell MidCap Index, which is somewhat unusual during a period of small cap outperformance. Small cap stocks also outperform larger companies over the 1-year period, with the Russell 2000 returning 20.7% versus a return of 18.5% for the Russell 1000.
- The 3<sup>rd</sup> quarter built on year-to-date trends as growth style indices outperformed their value counterparts. Growth indices benefitted from significant overweight's to the information technology sector, which was the best performing sector during the 3<sup>rd</sup> quarter. Growth benchmarks also benefitted from their exposures to more cyclical names within the information technology, health care and industrials sectors. The Russell Midcap Value Index's return of 2.1% was the worst performing style index for the period. Over the 1-year period, growth indices outperform value indices across the market cap spectrum with the Russell 1000 Growth Index returning an impressive 21.9%. However, all market cap and style indices have returns in the double digits with most returning greater than 15% for the year.
- Domestic equity valuations appear stretched relative to historical levels based on Forward Price/Earnings ratios (P/E), with even the most reasonably valued indices trading well above their historical P/E valuations. Index P/E valuations range from 115% to 138% of their respective 15-year P/E averages. The mid cap core and small cap value indices appear the most inexpensive and the small cap growth and small cap core segments look the most overvalued.



- Sector performance within the Russell 1000 Index was largely positive for the 3<sup>rd</sup> quarter. Six of eleven economic sectors outpaced the Russell 1000 Index return, and ten of eleven sectors posted gains during the period. Technology stocks were the best performers, returning 8.6% for the quarter on the back of another strong earnings season. Energy and materials stocks also performed well relative to other sectors, rising 6.9% and 5.8% respectively, benefitting from increased commodity prices. Brent crude prices rose over 20% through the quarter as U.S. inventories fell faster than expected, there were concerns of potential supply disruptions in U.S. oil refining operations in Texas due to flooding caused by Hurricane Harvey, OPEC remained committed to limiting production overseas and the USD weakened. Industrial metal prices also rose on positive economic news out of China. Other cyclical sectors such as industrials and financials also posted strong results. Telecommunication services returned an notable 6.5% due to strong performance of the sector's largest weighted companies, Verizon and AT&T. Over the trailing 1-year period, financials and technology were the best performing sectors in the Russell 1000, returning 35.1% and 28.3% respectively. Ten of eleven large cap economic sectors posted positive returns for the year with seven posting double digit returns. Energy was the only large cap sector to post a negative return over the last year, returning -0.7%.

- Small cap sector results generally outperformed their large capitalization counterparts for the quarter. Four of eleven economic sectors outpaced the Russell 2000 Index return for the quarter, and all eleven sectors posted positive results for the period. Most of the sector trends observable in large cap index sector performance also impacted small cap sectors. However, small cap telecom services underperformed large cap telecom stocks meaningfully. Over the 1-year period, six of eleven sectors have returns greater than 20% and eight have posted double digit returns. Energy was the only Russell 2000 sector to post a negative return over last year, falling -10.1%.

- Using S&P 500 sector valuations as a proxy for the market, Forward P/E ratios for eight of the GICS sectors were higher than their long-term averages at quarter-end. Using these historical P/E measures, the energy, materials and utilities sectors appear the most extended. In contrast the technology, health care and telecommunications sectors were trading at a discount to their long-term average P/E ratios.



**The Market Environment**  
**Top 10 Index Weights & Quarterly Performance for the Russell 1000 & 2000**  
As of September 30, 2017

Top 10 Weighted Stocks				
Russell 1000	Weight	1-Qtr Return	1-Year Return	Sector
Apple Inc	3.35%	7.4%	38.8%	Information Technology
Microsoft Corp	2.33%	8.6%	32.4%	Information Technology
Facebook Inc A	1.66%	13.2%	33.2%	Information Technology
Amazon.com Inc	1.59%	-0.7%	14.8%	Consumer Discretionary
Berkshire Hathaway Inc B	1.47%	8.2%	26.9%	Financials
Johnson & Johnson	1.46%	-1.1%	13.0%	Health Care
Exxon Mobil Corp	1.45%	2.5%	-2.5%	Energy
JPMorgan Chase & Co	1.41%	5.1%	46.9%	Financials
Alphabet Inc C	1.21%	5.5%	23.4%	Information Technology
Alphabet Inc A	1.21%	4.7%	21.1%	Information Technology

Top 10 Performing Stocks (by Quarter)				
Russell 1000	Weight	1-Qtr Return	1-Year Return	Sector
Juno Therapeutics Inc	0.01%	50.1%	49.5%	Health Care
NRG Energy Inc	0.03%	48.8%	130.0%	Utilities
Alnylam Pharmaceuticals Inc	0.04%	47.3%	73.3%	Health Care
Alcoa Corp	0.04%	42.8%	N/A	Materials
Take-Two Interactive Software Inc	0.04%	39.3%	126.8%	Information Technology
Orbital ATK Inc	0.03%	35.8%	77.0%	Industrials
International Game Technology PLC	0.01%	35.5%	4.5%	Consumer Discretionary
ACADIA Pharmaceuticals Inc	0.02%	35.1%	18.4%	Health Care
Spirit AeroSystems Holdings Inc	0.04%	34.3%	75.6%	Industrials
Gap Inc	0.03%	34.3%	38.3%	Consumer Discretionary

Bottom 10 Performing Stocks (by Quarter)				
Russell 1000	Weight	1-Qtr Return	1-Year Return	Sector
Intercept Pharmaceuticals Inc	0.00%	-52.1%	-64.7%	Health Care
Uniti Group Inc	0.01%	-39.3%	-47.9%	Real Estate
Tahoe Resources Inc	0.01%	-38.8%	-58.1%	Materials
Spirit Airlines Inc	0.01%	-35.3%	-21.4%	Industrials
Rite Aid Corp	0.01%	-33.6%	-74.5%	Consumer Staples
DexCom Inc	0.02%	-33.1%	-44.2%	Health Care
Dick's Sporting Goods Inc	0.01%	-31.8%	-51.6%	Consumer Discretionary
Mednax Inc	0.02%	-28.6%	-34.9%	Health Care
Envision Healthcare Corp	0.02%	-28.3%	-33.0%	Health Care
Foot Locker Inc	0.02%	-28.1%	-47.0%	Consumer Discretionary

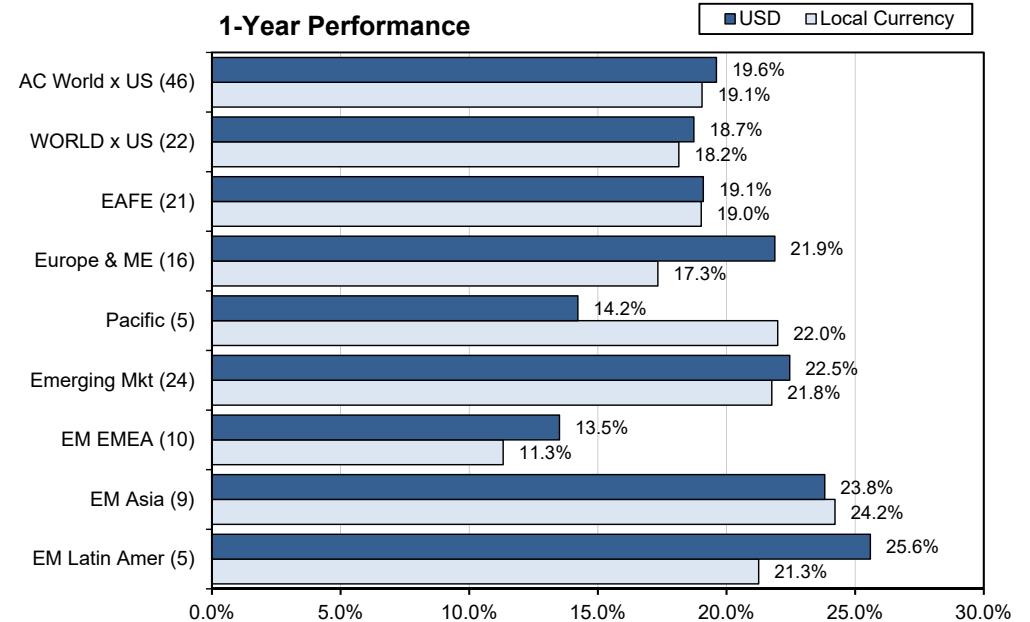
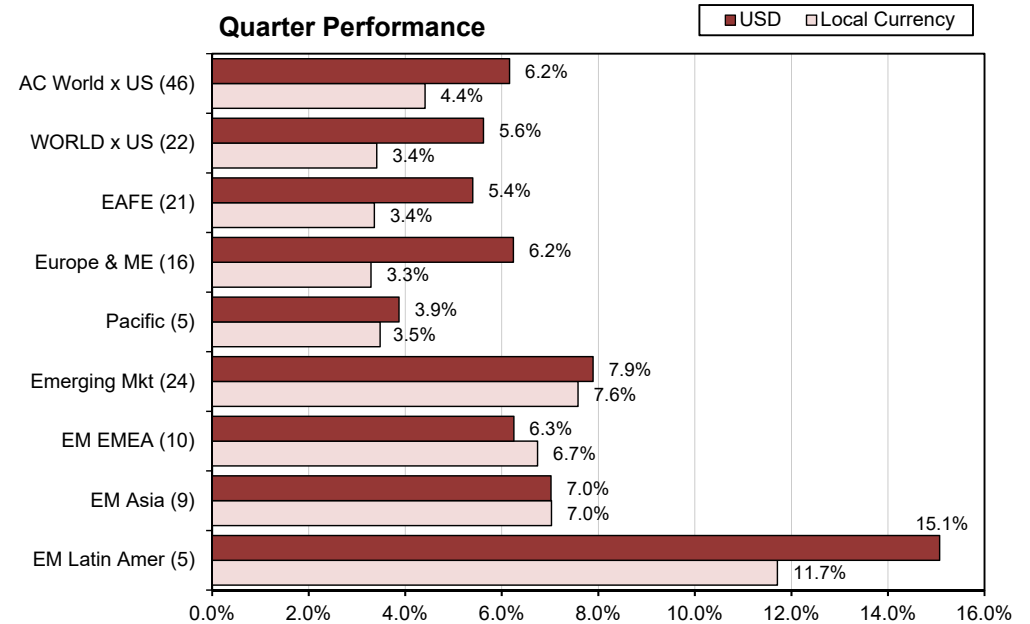
Top 10 Weighted Stocks				
Russell 2000	Weight	1-Qtr Return	1-Year Return	Sector
Kite Pharma Inc	0.43%	73.4%	221.9%	Health Care
bluebird bio Inc	0.31%	30.7%	102.6%	Health Care
Exact Sciences Corp	0.27%	33.2%	153.7%	Health Care
Knight-Swift Transportation Hldgs A	0.25%	12.3%	45.8%	Industrials
MKS Instruments Inc	0.25%	40.6%	91.8%	Information Technology
Catalent Inc	0.24%	13.7%	54.5%	Health Care
Aspen Technology Inc	0.23%	13.7%	34.2%	Information Technology
Starwood Waypoint Homes	0.23%	6.7%	30.2%	Real Estate
MGIC Investment Corp	0.23%	11.9%	56.6%	Financials
Curtiss-Wright Corp	0.23%	13.9%	15.4%	Industrials

Top 10 Performing Stocks (by Quarter)				
Russell 2000	Weight	1-Qtr Return	1-Year Return	Sector
Veritone Inc	0.01%	288.1%	N/A	Information Technology
MyoKardia Inc	0.04%	227.1%	162.2%	Health Care
Madriral Pharmaceuticals Inc	0.01%	176.6%	254.7%	Health Care
Abeona Therapeutics Inc	0.02%	166.4%	184.2%	Health Care
Zogenix Inc	0.04%	141.7%	206.6%	Health Care
Voyager Therapeutics Inc	0.01%	129.8%	71.4%	Health Care
Dynavax Technologies Corp	0.06%	122.8%	105.0%	Health Care
Hertz Global Holdings Inc	0.06%	94.4%	-44.3%	Industrials
Intrepid Potash Inc	0.02%	92.9%	285.8%	Materials
Spectrum Pharmaceuticals Inc	0.05%	88.9%	201.3%	Health Care

Bottom 10 Performing Stocks (by Quarter)				
Russell 2000	Weight	1-Qtr Return	1-Year Return	Sector
Versartis Inc	0.00%	-86.0%	-80.0%	Health Care
Otonomy Inc	0.00%	-82.8%	-82.1%	Health Care
Genocea Biosciences Inc	0.00%	-72.0%	-71.5%	Health Care
Babcock & Wilcox Enterprises Inc	0.01%	-71.7%	-79.8%	Industrials
Ominto Inc	0.00%	-70.5%	38.0%	Information Technology
Axovant Sciences Ltd	0.01%	-70.3%	-50.9%	Health Care
RAIT Financial Trust	0.00%	-64.9%	-75.1%	Real Estate
Radisys Corp	0.00%	-63.6%	-74.4%	Information Technology
CPI Card Group Inc	0.00%	-58.6%	-79.7%	Information Technology
Tintri Inc	0.00%	-56.8%	N/A	Information Technology



- International equity returns for the 3<sup>rd</sup> quarter were largely driven by ongoing improvement in the global economy and continued weakness in the USD. These trends, in tandem with rising commodity prices, helped emerging markets continue their 2017 outperformance relative to developed market equities. While USD strength remains on the high side of its 10-year range, the USD continued its year-to-date decline against most major currencies through the period. This provided additional tailwinds to international index returns denominated in USD. The recent weakness in USD is also visible in the 1-year performance for broad international indices, with most indices showing stronger returns in terms of USD. However, Asian-Pacific markets stand out as an exception.
- Returns for broad developed market international indices were broadly positive for the 3<sup>rd</sup> quarter in both USD and local currency terms with the MSCI EAFE Index returning 5.4% and 3.4% respectively. Eurozone, U.K. and Japanese markets advanced on the back of positive macroeconomic data and improvement in corporate earnings. As economic data has continued to stabilize, many developed market central banks have started to take a less accommodative stance toward monetary policy and economic stimulus. In Europe, European Central Bank (ECB) President Mario Draghi acknowledged that the ECB has been discussing plans to begin the wind down of their quantitative easing program. Investors are expecting a formal announcement in October. In the U.K., the Bank of England telegraphed that an interest rate hike was likely before the end of the year, and in Canada, the Bank of Canada raised interest rates twice this quarter. Despite increased tensions with North Korea and the early dissolution of the lower house of parliament by Prime Minister Abe leading to snap elections in October, Japanese equities rose over the quarter. Performance for the past year has been strong on an absolute basis with the MSCI EAFE Index returning 19.1% and 19.0% in USD and local currency terms respectively.
- A supportive global economic environment, increasing commodity prices and a weakening USD led to continued growth in emerging market equity prices. The MSCI Emerging Market Index outperformed developed markets during the 3<sup>rd</sup> quarter, returning 7.9% and 7.6% in USD and local currency terms respectively. Returns in China, Brazil and Russia were particularly strong as China advanced on an improving growth outlook, Brazil on improving political stability and progress on social and economic reform initiatives, and Russia largely on improvement in oil prices. One year returns on the MSCI Emerging Market Index are an impressive 22.5% in USD terms and 21.8% in terms of local currency.



**The Market Environment**  
**U.S. Dollar International Index Attribution & Country Detail**  
As of September 30, 2017

MSCI - EAFE	Sector Weight	Quarter Return	1-Year Return
Consumer Discretionary	12.2%	7.4%	20.3%
Consumer Staples	11.2%	0.8%	6.2%
Energy	5.1%	13.4%	22.1%
Financials	21.5%	5.2%	32.5%
Health Care	10.6%	0.7%	7.8%
Industrials	14.4%	6.3%	21.8%
Information Technology	6.3%	8.6%	28.5%
Materials	7.9%	11.0%	27.6%
Real Estate	3.5%	3.2%	5.9%
Telecommunication Services	4.1%	1.7%	4.4%
Utilities	3.4%	4.3%	11.6%
<b>Total</b>	<b>100.0%</b>	<b>5.4%</b>	<b>19.1%</b>

MSCI - ACWxUS	Sector Weight	Quarter Return	1-Year Return
Consumer Discretionary	11.3%	7.0%	19.7%
Consumer Staples	9.6%	1.1%	5.7%
Energy	6.6%	12.7%	17.5%
Financials	23.3%	6.1%	28.8%
Health Care	7.9%	0.8%	7.2%
Industrials	11.8%	5.6%	20.7%
Information Technology	11.2%	10.0%	35.1%
Materials	7.9%	10.7%	25.0%
Real Estate	3.2%	6.1%	10.3%
Telecommunication Services	4.2%	2.4%	5.4%
Utilities	3.1%	4.6%	10.5%
<b>Total</b>	<b>100.0%</b>	<b>6.2%</b>	<b>19.6%</b>

MSCI - Emerging Mkt	Sector Weight	Quarter Return	1-Year Return
Consumer Discretionary	10.3%	5.0%	16.3%
Consumer Staples	6.5%	2.5%	3.8%
Energy	6.8%	12.9%	21.2%
Financials	23.4%	7.2%	21.7%
Health Care	2.3%	3.3%	2.9%
Industrials	5.4%	1.7%	12.6%
Information Technology	27.6%	11.0%	40.5%
Materials	7.2%	10.1%	28.0%
Real Estate	2.9%	17.9%	29.9%
Telecommunication Services	5.1%	3.3%	6.3%
Utilities	2.6%	6.4%	7.2%
<b>Total</b>	<b>100.0%</b>	<b>7.9%</b>	<b>22.5%</b>

Country	MSCI-EAFE Weight	MSCI-ACWxUS Weight	Quarter Return	1-Year Return
Japan	23.0%	15.9%	4.0%	14.1%
United Kingdom	17.8%	12.3%	5.2%	14.6%
France	10.8%	7.5%	8.4%	30.6%
Germany	9.8%	6.8%	7.7%	26.1%
Switzerland	8.2%	5.7%	2.0%	15.7%
Australia	6.8%	4.7%	3.1%	13.1%
Netherlands	3.7%	2.6%	9.3%	28.4%
Spain	3.5%	2.4%	4.3%	32.0%
Hong Kong	3.5%	2.4%	5.1%	16.3%
Sweden	2.9%	2.0%	5.5%	24.3%
Italy	2.5%	1.7%	13.7%	45.6%
Denmark	1.9%	1.3%	7.7%	20.3%
Singapore	1.3%	0.9%	3.1%	18.7%
Belgium	1.2%	0.8%	9.2%	6.2%
Finland	1.0%	0.7%	3.3%	20.2%
Norway	0.7%	0.5%	19.2%	28.9%
Israel	0.5%	0.3%	-12.7%	-13.0%
Ireland	0.5%	0.3%	6.1%	14.4%
Austria	0.3%	0.2%	12.7%	59.3%
Portugal	0.2%	0.1%	13.2%	22.6%
New Zealand	0.2%	0.1%	-0.1%	-2.0%
<b>Total EAFE Countries</b>	<b>100.0%</b>	<b>69.2%</b>	<b>5.4%</b>	<b>19.1%</b>
Canada		6.7%	7.9%	15.0%
<b>Total Developed Countries</b>		<b>75.9%</b>	<b>5.6%</b>	<b>18.7%</b>
China		7.1%	14.7%	33.0%
Korea		3.6%	2.7%	24.8%
Taiwan		2.8%	0.8%	19.9%
India		2.0%	3.0%	14.2%
Brazil		1.8%	23.0%	29.2%
South Africa		1.5%	3.8%	7.6%
Mexico		0.8%	1.5%	16.2%
Russia		0.8%	17.6%	19.6%
Indonesia		0.6%	-1.1%	5.9%
Malaysia		0.6%	1.8%	6.2%
Thailand		0.5%	10.5%	20.7%
Poland		0.3%	9.3%	51.2%
Chile		0.3%	16.9%	35.6%
Philippines		0.3%	3.0%	2.1%
Turkey		0.3%	0.3%	14.5%
United Arab Emirates		0.2%	4.1%	6.4%
Qatar		0.1%	-6.9%	-14.9%
Colombia		0.1%	6.5%	12.7%
Peru		0.1%	14.1%	32.3%
Greece		0.1%	-12.2%	30.9%
Hungary		0.1%	9.6%	42.8%
Czech Republic		0.0%	10.0%	21.5%
Egypt		0.0%	2.2%	-17.7%
Pakistan		0.0%	-16.5%	-7.1%
<b>Total Emerging Countries</b>		<b>24.1%</b>	<b>7.9%</b>	<b>22.5%</b>
<b>Total ACWxUS Countries</b>		<b>100.0%</b>	<b>6.2%</b>	<b>19.6%</b>

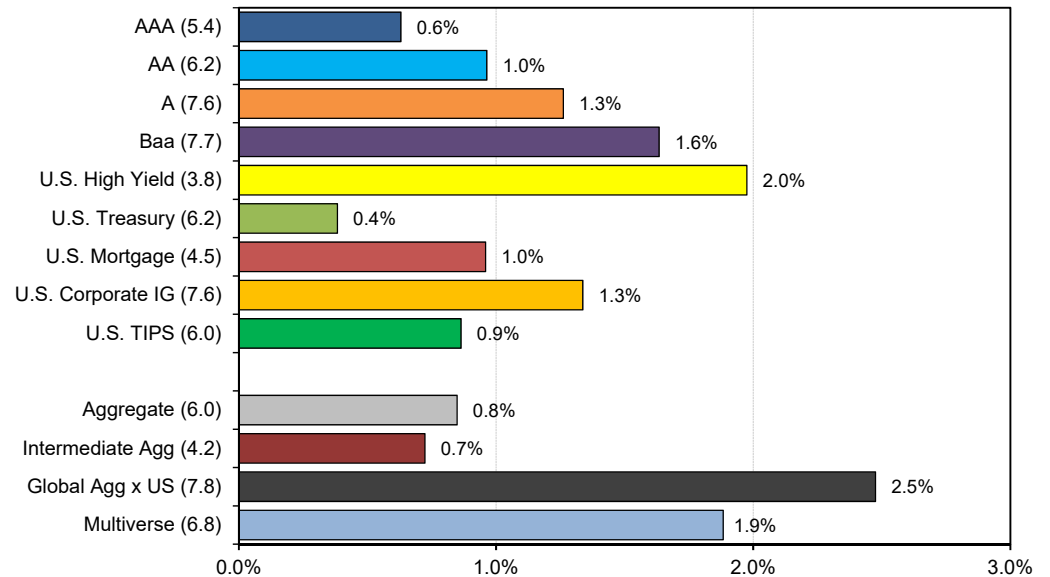
Source: MSCI Global Index Monitor (Returns are Net in USD)



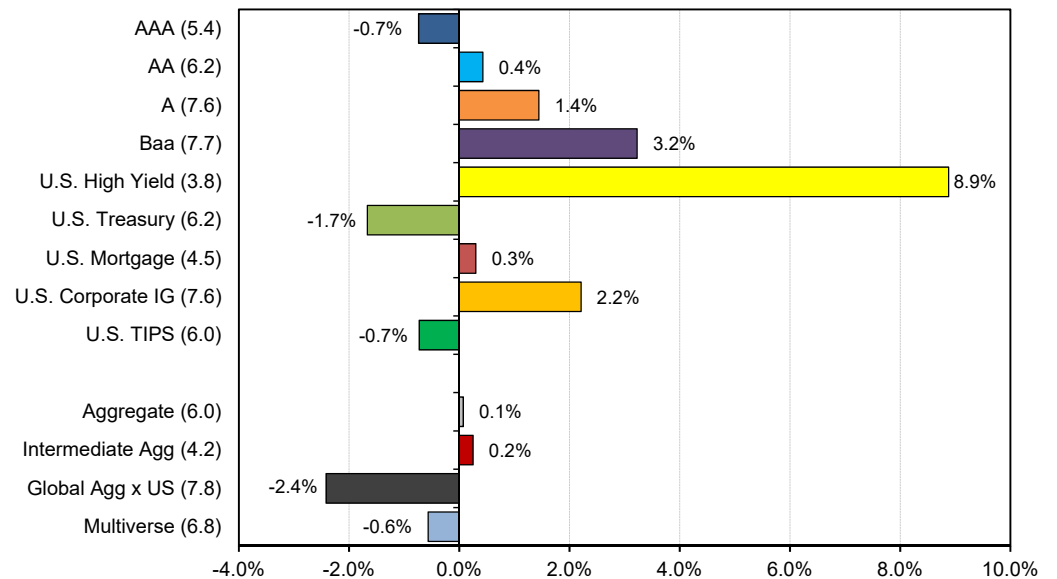


- Broad fixed income benchmarks gained ground during the 3<sup>rd</sup> quarter. The Bloomberg Barclays U.S. Aggregate Index ended the quarter with a 0.8% gain despite modestly rising interest rates. Interest rates fell during the first half of the quarter when investors looked to safe-haven assets as international relations between the U.S. and North Korea began to deteriorate and extreme weather created anxiety in markets. However, rates reversed course in the beginning of September, ending slightly higher than where they began the period. The Federal Open Market Committee (FOMC) voted not to increase short-term interest rates during the third quarter, but market expectations are for one additional increase prior to year end. While inflation remains subdued, the Fed feels the economy is tracking to be healthy enough to warrant continued tightening. This caused a flattening of the yield curve as short-term market yields rose more aggressively than rates on long-term maturities. The Fed also announced that its plan to gradually reduce its balance sheet by slowing the rate of reinvestment of the Treasury and mortgage backed securities (MBS) it holds on its books as the securities mature would begin in October. The amount reinvested each month will fall systematically, reducing the size of the Fed's balance sheet over time. This can be viewed as further tightening of monetary policy. This put additional upward pressure on interest rates as the quarter came to a close. The Bloomberg Barclays U.S. Aggregate Index stayed slightly positive over the 1-year period returning 0.1%, with the various investment grade sectors posting mixed results.
- Lower quality bonds outperformed higher quality issues for both the quarter and 1-year period as contracting credit spreads from improvements in economic fundamentals acted as a tailwind to these issues. During the 3<sup>rd</sup> quarter, credit spreads for high yield debt decreased by 17 bps versus only 8 bps for investment grade (IG) corporate issues. BAA issues more than doubled the return of AAA securities for the second straight quarter, returning 1.6% versus a 0.6% return for AAA debt. High yield debt continues to be the largest beneficiary of the strengthening economy, returning 2.0% for the quarter and 8.9% for the 1-year period.
- A review of sector performance shows that IG credit has continued its 2017 trend of outperformance versus Treasuries and MBS securities. As previously mentioned, corporate issues benefited from tightening credit spreads throughout the period. Treasuries were the worst performer due to their higher duration and expectations for additional tightening of monetary policy. MBS also benefitted from some spread compression through the quarter, but enthusiasm for these securities was dimmed by the Fed's planned balance sheet reduction strategy. Treasury securities posted the worst returns for the quarter, appreciating 0.4%. U.S. IG corporate bonds were the best performing IG sector over the 1-year period, returning 2.2%.

**Quarter Performance**



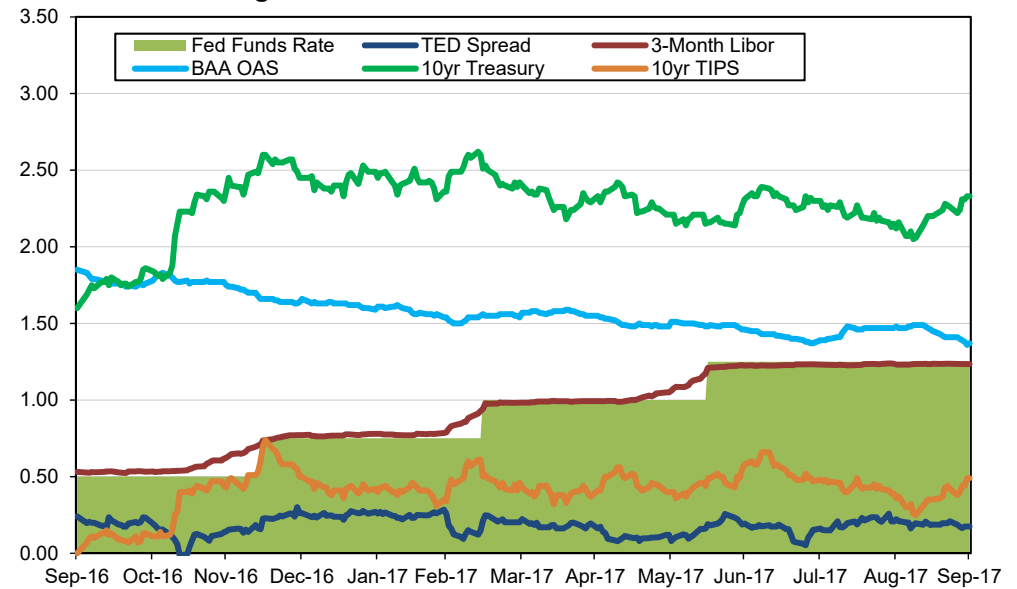
**1-Year Performance**



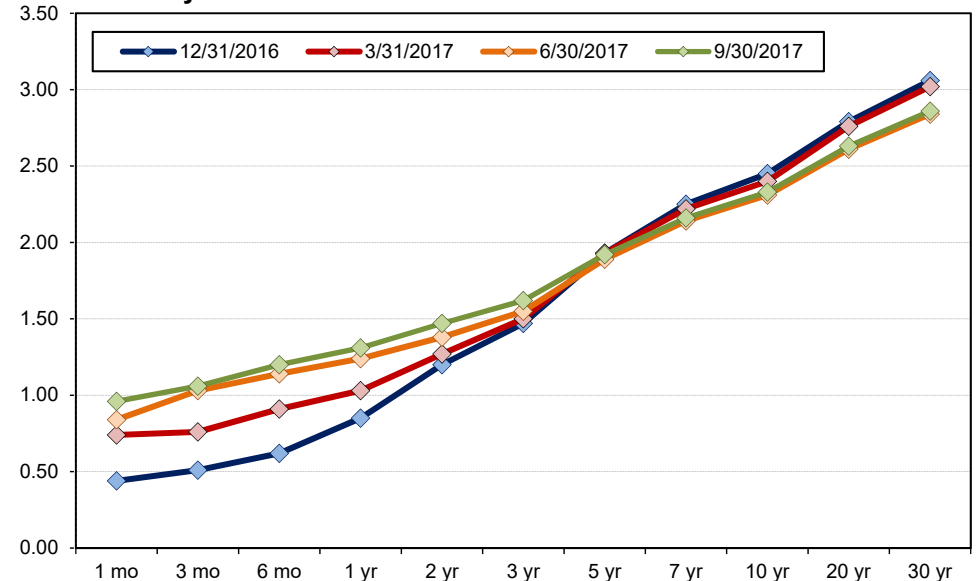


- Global fixed income indices also posted strong results for the quarter. Global benchmarks are impacted by the same local yield and duration factors as domestic benchmarks. While these indices have relatively high durations, the returns of these indices are also significantly influenced by fluctuations in their currency denomination relative to the USD. This currency effect can either be an offsetting benefit to negative yield and duration factors in a rising rate environment as it has been year-to-date, or it can further exacerbate negative performance as it did in 2016. Led by a weakening USD, global bond indices outperformed domestic issues for the for the quarter. However, hawkish comments from several global central banks muted returns during the final month of the period. Global bonds have had a currency effect tailwind so far in 2017, but global bond returns still trail domestic indices over the 1-year period, primarily due to their relative underperformance in the 4<sup>th</sup> quarter of 2016. The Bloomberg Barclays Aggregate ex U.S. posted a -2.4% return for the period.
- Much of the index performance detailed in the bar graphs on the previous page is visible on a time series basis by reviewing the line graphs to the right. The '1-Year Trailing Market Rates' chart illustrates that the 10-year Treasury yield (green line) rose dramatically in the 4<sup>th</sup> quarter of 2016, held largely steady during the 1<sup>st</sup> quarter of 2017 and then gradually fell through most of 2<sup>nd</sup> quarter before spiking at the end of June. As described on the last page, rates then fell through the first half of quarter before rising to the levels where they began the quarter. The yield on the 10-year Treasury has fallen to 2.33% from 2.45% at the start of the year. 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 a steady decline in credit spreads throughout 2016 and 2017. This decline is equivalent to an interest rate decrease on corporate bonds, which produces a tailwind for corporate bond index returns. These credit spreads have tightened by about 48 bps over the last 12-months. The green shading at the bottom of the graph illustrates the gradual increase in the Federal Funds Rate due to a less accommodative Fed monetary policy.
- The lower graph provides a snapshot of the U.S. Treasury yield curve at each of the last four calendar quarters. As mentioned, the yield curve continues to flatten as yields on shorter-term maturities have risen, while interest rates on the long end of the curve (5-years and beyond) have generally declined. Interest rate movement during the quarter was relatively muted, especially at the long end of the curve. However, the significant upward shift in short-term interest rates and decline of long-term interest rates since the end of 2016 is clearly visible.

1-Year Trailing Market Rates



Treasury Yield Curve



Disclosures

Disclosures as they pertain to GHA balanced account:

- GHA LCG and GHA EXCL A+ Fixed Income accounts are part of the GHA Balanced portfolio, and the returns for these accounts are represented as segment level returns that did not include their respective cash returns.
- Due to the balanced account, Total Equity and Total Fixed Income Composites are shown as segment level returns that do not include their respective cash balances and returns.

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



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